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Evaluating Comprehensive School Reform Models at Scale

Focus on Implementation

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Prepared for the U.S. Department of Education



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Preface

In recent years, pressure for improving student achievement has been steadily increasing, culminating in the No Child Left Behind Act of 2001. This legislation requires that schools reach 100 percent proficiency in reading and mathematics for all students by 2014. Responding to this pressure, an increasing number of schools have undertaken comprehensive school reform. Hundreds of different reform models have been developed over the years. Thousands of schools have adopted one of these models, most often using federal funds provided by Comprehensive Schools Reform Demonstration and/or Title I. However, the effect of comprehensive school reform models on student achievement remains debatable. Research results have been mixed. Most studies show only a modest effect—or sometimes no effect—on student achievement. One important reason for this mixed record is that most prior studies have not accounted for the extent to which schools have actually implemented their adopted models. If comprehensive school reform has not been implemented, or has been implemented only in part, changes in student achievement cannot be expected—or, if such changes occur, they cannot necessarily be attributed to the reform.

We undertook this study to: (1) develop a methodology to quantitatively measure the level of implementation of comprehensive school reform models that can be used for a variety of models in a variety of schools; and (2) apply this methodology to measure actual implementation of a selected group of comprehensive school reform models in a wide range of schools.

This project was undertaken under grant award # R306S000008 from the U.S. Department of Education. The findings of this study should be of interest to policymakers; state, district, and school administrators; model developers; and others interested in improving implementation of school reforms and increasing student achievement. This study should also be of value to researchers interested in measuring the effects of school reforms.

This research was conducted within RAND Education and reflects RAND Education's mission to bring accurate data and careful, objective analysis to the national debate on education policy.

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Summary

Under pressure to improve student achievement, schools throughout the nation are increasingly turning to whole-school models of reform. Whole-school reform, often referred to as comprehensive school reform (CSR) is based on the idea that a school ought to have a coherent vision of its mission and educational strategy that addresses every aspect of its operations. Hundreds of CSR models have been developed. All CSR models share the common focus of changing the “whole school.” But they differ in their educational philosophies and prescribed practices in key areas such as curriculum, methods of teaching, forms of governance, and parental involvement. CSR is one of a limited set of interventions that the No Child Left Behind Act explicitly allows for schools that need to improve their performance.

To date, the nation has more than 20 years of experience with CSR. More than 8,000 elementary and secondary schools (mostly low-performing) have adopted a CSR model, and more than \$2 billion of federal funds have been used to implement CSR strategies. Nonetheless, the potential of this school reform to improve student achievement and meet the No Child Left Behind goal of 100 percent proficiency in reading and mathematics by the year 2014 is unknown.

CSR’s effectiveness continues to be hotly debated. Research results have been mixed. Some studies have measured a modest improvement in student achievement; others have found no effect. A major shortcoming of nearly all of these studies is that they fail to account for the extent to which schools have actually implemented their chosen model. Most prior studies have simply assumed that schools have implemented

their chosen CSR model in its entirety. However, what if most schools have implemented CSR models only partially or not at all? In such cases, the desired outcome cannot be expected to occur, or if it does, cannot necessarily be attributed to the intervention. The level of implementation must be known before one can decide whether a model is effective.

This study was designed to fill the “implementation measurement” gap. We developed a methodology to quantitatively measure the level of CSR implementation that can be used across a variety of CSR models, and we then applied this methodology to measure actual implementation of four different CSR models in a large number of schools. The study also compared the extent to which actual practices in curriculum, instruction, governance, grouping of students, assessment of students, and parent involvement differed between schools using these four models and a sample of matched comparison schools that did not use the models.

Previous research on CSR implementation has relied mainly on in-depth case studies. Although this approach can provide good data, it is expensive, resulting in studies that focus on only a small number of schools. The methodology we developed has two advantages. First, it relies primarily on surveys of principals and teachers supplemented by a small number of case studies, and therefore can be used for a large number of schools at a time (see Chapter Two). Second, it is applicable to all types of CSR models and can also be used to study practices in nonmodel schools. Our approach involves, first, the acquisition of an in-depth knowledge and understanding of the model’s philosophy and core components (for most models, core components include curriculum, methods of instruction, governance, student groupings, assessment, and parent involvement). Second, we translated our detailed understanding of each model into a set of practices or activities that the school *should have or do* in order to implement the core components. These “should have or do” practices, taken together, indicate full implementation of the model design. Next, survey questions were developed to measure whether the practices were in use, and, if used, the extent of use. To enable comparisons of school practices across schools that use different models or no models, care was taken to

ensure that the wording of the survey questions was applicable to different models and schools. We kept in mind that many CSR models draw on widely acknowledged “best practices” that may be used by schools implementing another model or by schools that do not use CSR at all. Many CSR models have been developed by educational consultants; to ensure that we captured each model’s key components, the “should have or do” practices and survey questions were reviewed by the applicable model developers. Finally, survey responses were translated into a standardized implementation score for each model practice that was then aggregated across model core components and across all components for a whole-school implementation score.

Four CSR models designed for grades K–8 are included in this study: Accelerated Schools (AS), Core Knowledge (CK), Direct Instruction (DI), and Success for All (SFA). They were selected because they have been widely implemented in schools throughout the nation, and because they differ from each other significantly (see Table 2.1, Chapter Two). Surveys were sent to principals and teachers in a cross-sectional sample of 250 model schools: 36 AS schools, 42 CK schools, 93 DI schools, and 79 SFA schools in Florida and Texas.¹ We also sent surveys to a set of comparison schools that had not implemented a CSR model. These comparison schools were matched one-on-one with each model school (similar socioeconomic characteristics, similar size, and, when possible, in the same district). Finally, we complemented this study with a set of case studies in 12 schools to obtain more qualitative information and insights into the implementation process.

We recognize that our methodology cannot measure all dimensions of the four CSR models, although we did measure those deemed most important by the model developers. In addition, we recognize that our sample of CSR models is not representative of all types of CSR models; our data is cross-sectional; and our sample of schools, although large compared to most other studies, is not fully representa-

¹ We originally intended to measure changes in implementation over time and sent surveys over three years: 2002 to 2004. Because too many schools abandoned the models or refused participation in one or more years, the longitudinal sample became too small for reliable analysis.

tive of schools using these models in Florida and Texas. Nevertheless, the analyses presented in this report provide new insights and advance our understanding of how fully CSR models get implemented, the implementation challenges encountered by schools, the type of interventions that might address those challenges, and how practices of model schools differ from those of nonmodel schools.

The unique methodology we developed was sensitive enough to capture meaningful variations in implementation levels across model types and across schools, and to describe variations in school and teacher practices between model schools and nonmodel schools. This methodology can be replicated at reasonable cost and could be used in future studies to determine how the level of CSR implementation affects student achievement.

We found that none of the schools in our study had fully implemented all core components of the model they had adopted. We also found broad variations in the level of implementation across schools using the same model. Some core components were implemented more widely than others. For example, schools were generally able to implement the prescribed curriculum of their adopted model, with occasional minor departures to compensate for perceived gaps, such as placing more emphasis on reading comprehension or altering the sequence of topics to meet state or district standards. But schools had more difficulty in following the instructional practices prescribed by their model and in grouping students by level of performance; these two components were generally implemented at a lower level. Finally, in comparison to other core components, practices to increase parental involvement in school affairs were consistently implemented at the lowest level. Overall, the level of implementation did not change with the length of time that a school had been using a model.

Teachers' reported commitment to using their schools' adopted model was typically only lukewarm, notwithstanding the importance model developers place on teacher "buy-in." The level of teachers' commitment did not change with years of experience using the model. By contrast, principals consistently overrated their teachers' commitment to the model. In our case studies, we found that most principals had

selected the model themselves, without teacher input. The disparity between principal and teacher perceptions may be the result of teachers having been excluded from the model selection process.

Model developers typically prescribe a high level of support to ensure that the model is implemented successfully. Such support includes external support (principal and teacher consultation with the model developers/consultants, teacher training, and ongoing professional development) and internal support (the appointment of a school staff member to facilitate and coordinate the implementation). However, most schools did not have the level of implementation support that model developers deemed necessary. On average, teachers received about half of the recommended initial training and about one-quarter of the recommended ongoing professional development. Similarly, both the prescribed levels of external assistance from model developers/consultants and the time allocated to an internal school staff member to facilitate and coordinate model implementation fell short. It may be that schools do not have sufficient time or staff to devote to model implementation, or that they lack the flexibility to reallocate their resources, or that they are not motivated to do so.

A higher level of support was associated with a higher level of implementation. However, different forms of support were associated with the implementation of different core components. Consistent with previous research, our study shows that the level of teachers' commitment was associated with implementation of the model's curriculum, methods of instruction, and grouping of students (all practices that are implemented mostly at the classroom level). The level of teachers' professional development related to the model was also associated with implementation of curriculum and methods of instruction. Implementation of methods of instruction was also associated with the frequency of meetings between teachers and an external consultant; implementation was greater if such meetings occurred more frequently. External assistance from the model developer and internal assistance from the internal facilitator were also associated with schoolwide activities, including grouping of students in classrooms by performance and governance.

Finally, we found that schools tended to engage in the same types of activities regarding curriculum, methods of instruction, student groupings, governance, assessment of students, and parent involvement regardless of whether the school used one of the four models or not. And, on average, all schools engaged in these activities at the same frequency or level of intensity. However, a number of model-prescribed practices differed between types of model schools and between model schools and their matched nonmodel schools. The practices that were implemented at a higher level of intensity or frequency when prescribed by a model included teacher participation in the development of the yearlong plan and its use to minimize overlaps across grades; students working collaboratively in groups or pairs; teachers' adherence to lessons' word-for-word-scripts; assignment of daily homework and parent signoff on that homework; and placement of students into classrooms or groups by reading performance. Also, parent involvement was higher in most model schools than in nonmodel schools. For individual tutoring, the reverse was true: in schools using a prescriptive model (CK, DI, and SFA), fewer students received supplemental tutoring, suggesting that such models may decrease the need for it.

Our findings, if replicated in future studies, have several broad implications. The most important is that given the limited differences in actual practices between schools that implement different models and between model and nonmodel schools, it is not surprising that research to date has found only modest effects of CSR models on student achievement. Although, we found some practices prescribed by the models that were practiced at a higher level of intensity or frequency by model schools than by nonmodel schools, it remains unknown whether it is these practices that affect student achievement and at what level must be implemented to have the desired impact. Future research should focus on identifying the practices, the levels of implementation, and the levels of support required to ensure desired implementation levels that contribute most to student achievement.

There is also significant room to increase the level of implementation of CSR models. We found that the level of support fell short of the level recommended by model developers, and that a higher level of specific types of support was associated with higher implementation

of specific model components. Schools should ensure that teachers are committed to implementing the adopted model and that they receive the necessary initial training. Teachers should be more actively involved in choosing the model and in practicing the prescribed changes before they are asked to implement them in the classroom. A higher level of initial and ongoing professional development related to the model may also be needed. Schools that continued use of a model beyond the first few years provided some form of continuing professional development related to the model. To improve implementation of schoolwide changes, the availability of and interactions with an external consultant and an internal consultant may need to be increased as well.

Beyond that, it remains to be seen how much more additional support, of what kind, and for what model core component or individual practices may be needed to increase the level of implementation of CSR models. This also is an area where future investigations have the potential to be most fruitful.

Finally, our findings underline the importance of accounting for the level of implementation when seeking to measure CSR effects on student achievement. We hope that the measurement methodology developed for this study will also be used in future studies, in order to measure a broader sample of schools. Researchers cannot determine whether a CSR model affects student achievement until they first know whether and how completely the model has been implemented.

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Acronyms

AS	Accelerated Schools
CCD	Common Core of Data
CK	Core Knowledge
CSR	Comprehensive School Reform
CSR D	Comprehensive School Reform Demonstration
CSR M	Comprehensive School Reform Model
DI	Direct Instruction
ESL	English as a second language
FTE	full-time equivalency
ICC	intraclass correlation
NCLB	No Child Left Behind
SEDL	Southwest Educational Development Laboratory
SFA	Success for All
TIMSS	Third International Mathematics and Science Study

Introduction

More than 20 years after the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), the nation is still experimenting with policies and interventions designed to reduce the gap between students of different backgrounds and bolster overall achievement. A veritable industry has developed, supported by philanthropists, foundations, and the federal government, to create a vast array of interventions to improve teaching and learning in low-performing schools (Glennan et al., 2004a). The effectiveness of these interventions remains hotly debated.

One of the most popular interventions is whole-school reform, often referred to as comprehensive school reform (CSR), for which there are many models. CSR is one of a limited set of interventions that the No Child Left Behind Act explicitly identified for schools that need to improve their performance. As schools work toward achieving the No Child Left Behind goal of 100 percent proficiency in reading and mathematics by 2014, there will be a greater demand for guidance on which type of interventions to implement for specific circumstances, how to implement them effectively, and what effects can be expected.

Growth of Comprehensive (Whole-School) Models of Reform

Comprehensive school reform models derive from the research literature on effective schools that suggests that a school ought to have a coherent vision of its mission and educational strategy that addresses

every aspect of its operations, from curriculum to governance to classroom instruction (Purkey and Smith, 1983; Edmonds, 1979; Berman and McLaughlin, 1978). They also draw on studies that recognize that school improvement efforts are complex and difficult to implement without outside assistance (Montjoy and O’Toole, 1979; Glennan, 1998; Glennan et al., 2004a). Most CSR models were developed by educational consulting firms external to the school system.

CSR models provide schools with a set of prescriptions—a blueprint—that schools and their staff can follow. Although they share a common focus on changing the “whole school,” they vary in philosophy, curriculum, instructional practices, form of governance, and other relevant academic and organizational dimensions. They range from being very prescriptive, specifying every requirement in great detail, to being process-focused, merely providing the school with a set of principles and activities to guide the process of change (Herman et al., 1999).

The development and implementation of CSR models began in the early 1980s, initially at a modest scale of one school at a time. Soon, however, the CSR approach grew both in the variety of models and the number of schools that adopted them. Funding for development and implementation of these models initially came primarily from private funders and foundations, but the federal government is playing an increasing role through its federally funded research centers and its funding of research. Also, by the early 1990s, changes in Title I of the Elementary and Secondary Education Act allowed high-poverty schools to use Title I funds to implement CSR models, including payments to consultants external to the school to assist in their implementation. In addition, in 1997, Congress passed the Comprehensive School Reform Demonstration Project, which dedicated funds to schools that adopted a CSR model for a period of three years. Since then, more than \$1.8 billion in federal funds has been expended to encourage low-performing schools to engage in comprehensive school reform. Today, there are more than 700 different CSR models spanning all K–12 grades. Most CSR models have been focusing at the elementary level, but their numbers are expanding rapidly at the middle- and high-school levels fueled

by nationwide concern and substantial public and private funding.¹ More than 8,000 schools nationwide have used CSR, and many more are expected to do so in the future under the pressure of No Child Left Behind accountability.

Relationship of Implementation to Effectiveness of CSR Models

After 20 years of using CSR models in thousands of schools, parents, educators, and policymakers need to know: Does CSR work? Does it help students perform better? At best, the evidence is mixed. Some studies show that CSR's effects on student achievement range from nil to modestly positive in reading and mathematics.² Often studies are inconclusive because the sample size is too small to allow generalization, the study lacks a control comparing the CSR schools to non-CSR schools, or the researchers have not compensated for selection bias.

However, this study focuses on another, largely ignored possibility. It may be that CSR models have been inadequately implemented. There are few accounting studies of CSR models that focus on the level and quality of CSR implementation by schools (Bifulco, Duncombe, and Yinger, 2003; Comprehensive School Reform Quality Center, 2005; Borman et al., 2005). As previous research on reform program implementation has amply documented, the level and quality of implementation determines the extent to which the desired outcomes may be realized (Fullan, 1991; McLaughlin and Phillips, 1991; Stringfield, Millsap, and Herman, 1997; Datnow, Borman, and Springfield, 2000). If there is no implementation or partial implementation of an intervention, the expected outcome is unlikely to occur, or, if it does occur, it cannot be fully attributed to the intervention. After finding no rela-

¹ Examples of such development include the federal Small Learning Communities program and the Bill and Melinda Gates Foundation and Carnegie Foundation secondary schools initiative.

² A meta-analysis of evaluations including 29 CSR models suggests an overall effect size of .11 to .15 on student tests of achievement (Borman et al., 2005).

tionship between the existence of various model components (such as a new curriculum, particular instructional practices, a certain form of governance) and variance in CSR effects on student achievement across models, Borman et al. (2005) suggested that either “these components are not important in promoting student achievement or, more likely, that knowing whether or not a CSR model generally required schools to implement a given component tells little about whether or not the component was actually implemented.”

Faithfully implementing a CSR model according to the developer’s design is challenging. It often requires educators throughout the school to rethink their practices, actively change many of them, and sustain the changes over time, a process that requires leadership, know-how, teacher buy-in, additional resources, time for teachers set aside from other school duties, persistence, and compatibility with state and district standards and policies. Hence, it is easy to see why a school’s implementation of a CSR model may fall short of the design anticipated by model developers. Indeed, research has shown a large proportion of schools (up to one-third) discontinue the use of CSR models within the first few years of their adoption (Datnow, 2005; Taylor, 2005; Finnigan and O’Day, 2003; Berends, Bodilly, and Kirby, 2002).

Before we conclude that a model has succeeded or failed to increase student achievement, we need to measure the degree of implementation. Measuring implementation is difficult and costly. By design, CSR models are multidimensional, prescribing multiple practices in the areas of curriculum, instruction, groupings of students, student assessments, governance, parent involvement, and the like. These prescriptions must be carried out by a large number of people within the schools, with inevitable variations among them. Furthermore, schools may deliberately modify the models as they gain experience, adjusting their model to their unique circumstances and to district and state standards, so that over time, the schools’ practices evolve into something that no longer resembles the original model design. Thus, it is not surprising that most studies of CSR model performance have ignored the extent to which schools have actually implemented a model. Most

studies assume that implementation has occurred as prescribed by the model developer, thereby suggesting that the model is ineffective rather than that schools failed to implement it fully or consistently.

Implementation is best measured by means of case studies that involve visiting schools to conduct interviews and focus groups with the principal, teachers, and other stakeholders, to observe instruction in classrooms. However, this approach is too expensive to be replicated across a large enough number of schools for generalizations to be drawn. It is only recently that researchers have begun to develop alternative approaches to measure implementation across a large number of schools. Rowan, Harrison, and Hayes (2004) used teacher logs from 500 teachers to assess the implementation of the mathematics curriculum and teaching practices of three CSR models in 53 elementary schools.³ They found broad variations in implementation within and across schools. However, this approach, although applicable to other model components, remains expensive and demanding of teachers. Bifulco, Duncombe, and Yinger (2005) explored the use of model developers' reports of their schools' implementation and found that program effects seemed to increase with implementation quality. This approach has the advantage of capturing what the model developers deem most important but may suffer from inconsistencies across raters (different staff may rate different schools) and from a potential tendency by model staff to overrate the actual level of implementation (rater bias). Others (Berends, 2002; Kurki, Aladjem, and Carter, 2005) have used surveys of principals and teachers. The advantage of this latter approach is that it is cheaper and can be applied to a large number of schools and models and, thus, can be potentially replicated across studies.

The approach we developed (described in Chapter Two) to measure how a CSR model and each of its components have actually been implemented combines two advantages: It relies on a disciplined and

³ Teacher logs to measure students' exposure to curriculum topics have also been used in the Third International Mathematics and Science Study (TIMSS) (Floden, 2002).

interactive process with model developers to identify indicators of model implementation that model developers deem important, and it uses cost-effective surveys of principals and teachers to measure them.

Purpose and Research Questions

This study was designed to accomplish two major goals: (1) to develop a methodology to measure the level of implementation of CSR models that is applicable to all types of models; and (2) to apply this methodology to measure a number of schools' implementation of a selected group of CSR models. In the context of this second goal, we address the following questions:

- To what extent does actual implementation conform to model design? Are there practices that are more difficult for schools to implement than others?
- How long does it take for each core model component to be fully implemented, and to what extent is implementation sustained over time?
- What type and level of assistance do schools receive to assist in their implementation of CSR models? Does the level of support received conform to model developers' recommendations?
- How do practices differ between types of model schools and between model schools and schools not engaged in comprehensive school reform?
- What implementation support and school and district factors are related to the level of implementation?

Once we understand whether and how completely CSR models have been implemented and how different their implemented practices are from those of nonmodel schools, then we can ask the most important question: Do they work?

Study Design

Four CSR models targeted to grades K–8 are included in this study: Accelerated Schools (AS), Core Knowledge (CK), Direct Instruction (DI), and Success for All (SFA). They were selected because they have been widely implemented throughout the nation since the early 1990s and because they differ from each other significantly in design. Accelerated Schools emphasizes governance and a specific mode of instruction called “Powerful Learning.” Core Knowledge centers on a prescribed curriculum that is coordinated across grades and designed to provide students with a core foundation of facts and knowledge. Direct Instruction provides a highly structured curriculum and a word-for-word scripted mode of classroom instruction. Finally, Success for All provides a structured program emphasizing cooperative learning and offers strategies designed to assist at-risk students, including tutoring and regular home reading assignments.

To understand how these CSR models were implemented, this study sought to use a comparative longitudinal analytical approach. Over a three-year period (2002 to 2004), we surveyed up to 180 “model” public elementary schools and up to 140 “nonmodel” public elementary schools annually in Texas and Florida. Each model school was matched one-on-one with a nonmodel school. The three-year period was selected to allow adequate time for CSR schools in their first year of implementation to fully implement their adopted model. But, as is documented in Chapter Three, a high incidence of schools abandoning or changing models over the three-year period of the study combined with a high attrition rate in school participation rendered our longitudinal sample of schools too small for reliable analysis. Instead, our analyses are based on a cross-sectional sample of 250 model schools and 190 nonmodel public elementary schools. A complete description of the sample and its limitations can be found in Chapter Three.

Finally, we collected information to measure actual implementation from surveys of principals and teachers, along with school characteristics reported in the Common Core Database from the U.S.

Department of Education to address the study research questions. This information was complemented with detailed case studies conducted in a subsample of 12 schools.⁴

Conceptual Framework

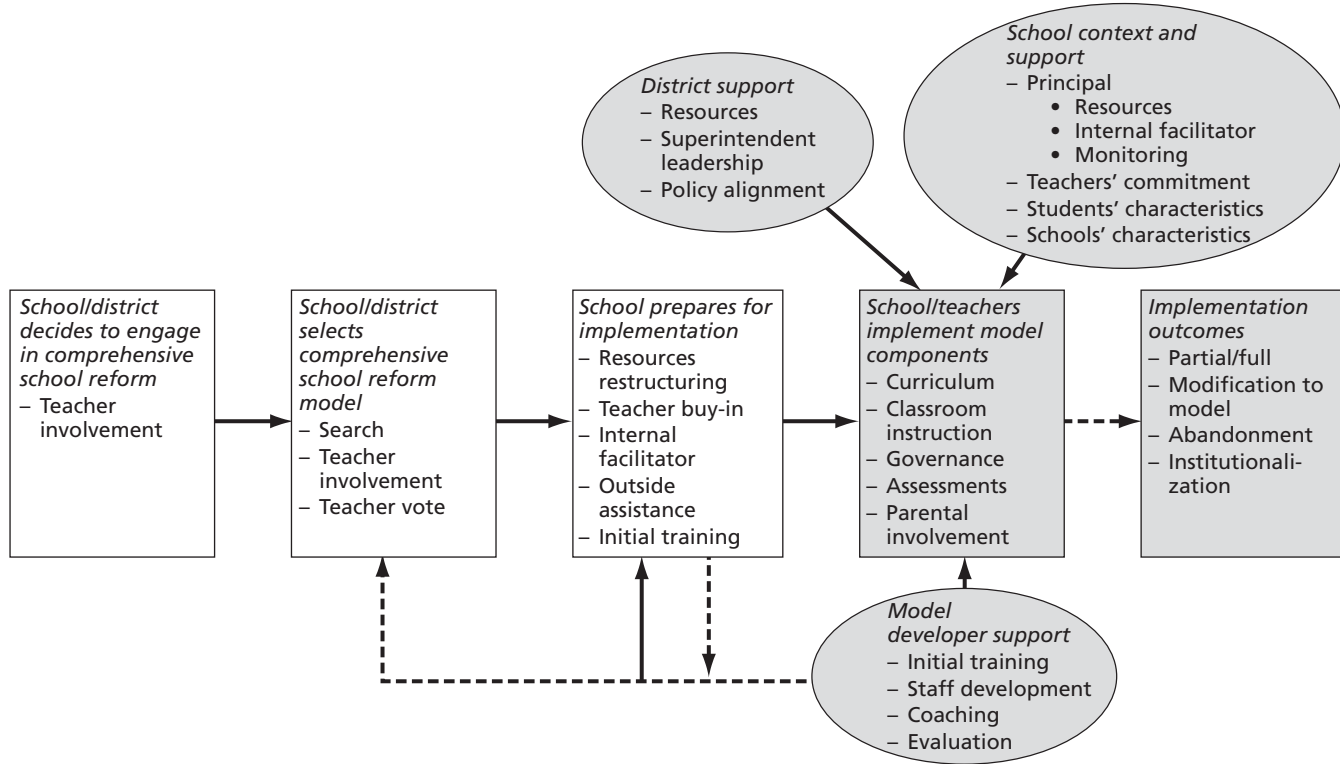
Inducing change in the behavior and practices of an existing organization is both complex and difficult. Research suggests that achieving change in schools is no less complex and perhaps far more difficult than in any other type of organization (Berends, Bodilly, and Kirby, 2002). Different sets of behaviors on the part of students, teachers, principals, and administrators are expected; each group responds to and is driven by varying incentives, rules, and regulations.

Much research has been devoted to the process of change in schools and to understanding the factors that determine success or failure.⁵ Research focused on CSR models more specifically suggests that successful implementation may depend on a multitude of factors, including the model's complexity and specificity; the model's consistency with other school, district, and state policies; the type and level of assistance provided to the school; principal leadership and staff buy-in; the amount of resources, including time, allocated to teachers; and the amount of model-specific training and staff development provided (Glennan et al., 2004b; Berends et al., 1999; Berends, Bodilly, and Kirby, 2002; Bifulco, 2002; DeSimone, 2002; Datnow, 2005; Turnbull, 2002; Bodilly, 1998; Fermanich and Kimball, 2002).

Drawing on this extensive literature, Figure 1.1 provides a framework for understanding the process of implementation of CSR models from model selection to implementation to outcomes. As shown on the left side, the process starts with a district or a school decision to

⁴ The detailed findings from the case studies are reported in Vernez and Goldhaber (2006).

⁵ Several recent studies have reviewed the implementation research of education programs and policies and need not be repeated here. For instance, see Glennan et al., 2004a; Berends, Bodilly, and Kirby, 2002; and Stringfield, Millsap, and Herman, 1997.



RAND MG546-1.1

Figure 1.1
Framework for Analysis of Process of CSR Model Selection and Implementation

engage in comprehensive school reform. The school, with or without district input, looks for an appropriate model to meet the school's needs. Model selection occurs, sometimes with and sometimes without teacher involvement and approval. Upon selecting a model, the school prepares for implementation. The process of preparing for implementation may be more or less involved: resources may have to be acquired, teacher buy-in may be sought, school scheduling and structure may be modified, new materials may be acquired, staff may need to be hired or reallocated to new functions, and initial training needs to be provided to school staff. Only after these activities have been performed can the school and its teachers begin in earnest to implement the model.⁶

At the right side of the figure, the shadowed boxes and circles show the main focus of this study: the process of implementing the model's components by the school's principal and teachers. Implementation includes curriculum, instruction, grouping of students, governance, student assessment, parental involvement, and similar processes. It is moderated by the school context and support provided by the school and is influenced by support from the district and model developer (or external consultant). Such support may include a combination of materials, financial resources, in-kind resources, leadership, coaching, monitoring, and evaluation of progress.

⁶ The process of deciding to engage in comprehensive school reform, selecting a model, and preparing for implementation was examined in the complementary case studies of 12 schools that were part of this study. We found that most schools elected to engage in school reform in order to improve school performance. Model selection was primarily based on the principal's knowledge or prior experience with a specific model, occasionally with the help of a teacher committee. Typically, only one model was considered, and teachers were not engaged in the decisionmaking process. Teacher's buy-in was sought only after selection of the model, usually by arranging for a briefing by the model developer. Although 80 percent of teachers in all 12 schools voted to adopt the model, this signaled more that the schools were going to go ahead anyway rather than actual buy-in on the part of the teachers. In 7 of the 12 case-study schools, teachers received the amount of initial training prescribed by the developer; teachers in the other 5 did not. Regardless of the amount of initial training received, teachers reported that it had been insufficient. For more details, see Vernez and Goldhaber (2006).

Principal and Teachers Implement Model Components

Variation in implementation may include the selective use of specific components of a particular CSR model; how extensively (the strength and depth) and how broadly (the reach or breadth) each of the components was implemented; and the timing of implementation of each component (e.g., sequence of implementation and phase-in stages).

There is some evidence that the model specifications themselves may affect implementation. As noted earlier, CSR models vary in the number and depth of dimensions (curriculum, instruction, governance, grouping of students, student assessments, and parental involvement) they seek to change, and, within these dimensions, the range of principal, teacher, student, and even parent, behavior they seek to alter.

Models that are more complex and comprehensive may be more difficult to implement (Berends, Bodilly, and Kirby, 2002). Models that provide greater specificity and appropriate supporting materials may be more readily implemented than those that do not, but they may also generate more resentment and resistance on the part of school staff. Similarly, models that make greater demands on teachers' time and know-how may also engender greater resistance. Models that primarily focus on restructuring changes, such as organization, governance, and the establishment of student groupings, may not have any direct effect on classroom practices (Elmore, Peterson, and McCarthey, 1996; Muncey and McMillan, 1996; Nunnery, 1998; Fullan, 2001).

As implementation proceeds, whether all at once or in phases, principals and teachers assess its effects. Teachers learn about the level of effort the model demands, the flexibility it offers in the classroom, and how students respond to the new curriculum or instructional practices. Changes in student motivation, discipline, and achievement affect attitudes and teachers' and principals' commitment to the model (Nunnery, 1998). Teachers may also decide which elements of a model they will emphasize, incorporating those they like and disregarding those they dislike (Cuban, 1998). In turn, these adjustments influence the consistency, level, and quality of implementation and ultimately whether the school sticks with, adapts, or abandons the model.

School Context and Support

The level of implementation of a school reform has been found to be associated with the level of support provided as well as by the school's characteristics.

Principal Leadership. Principal leadership is not only decisive in selecting the CSR model (Vernez and Goldhaber, 2006), but it has also been shown to be associated with the level of implementation. Weak leadership usually results in the failure of the reform (Fullan, 2001; DeSimone, 2000; Berends, Bodilly, and Kirby, 2002; Fullan, 1999; Muncey and McMillan, 1996). The principal is not only the manager of the reform, but he or she is also key in securing the needed resources. Funding is critical to sustaining the implementation. When resources decrease or disappear, implementation is likely to falter (Glennan, 1998; Montjoy and O'Toole, 1979).

Also, the principal usually decides whether to allow additional time to teachers to prepare for and implement the reform, and whether to designate or hire an internal facilitator (recommended by most CSR model developers) to coordinate the implementation of the reform, coach teachers, and otherwise monitor implementation.

Teacher Support. Teachers are central to implementation of any CSR model. Teacher buy-in and commitment to the model are critical, because teachers are the ones that must implement all curriculum and instructional changes (Gamoran et al., 1995; Oakes, Gamoran, and Page, 1992; Berends, 2002). They also must dedicate time to preparing lessons and participating in committee or grade-level meetings. Their degree of engagement in reform may be affected by personal characteristics such as their previous experience, education, race/ethnicity, or gender (Berends, 2000; Datnow and Castellano, 2000; Kirby, Berends, and Naftel, 2001).

Student Characteristics. Students may also affect the extent of implementation of CSR models. Such characteristics include race/ethnicity, English-language proficiency, mobility, poverty level, and prior student achievement. If student mobility is high, CSR models that build on prior grade knowledge may be harder to implement.

Similarly, schools that have a high proportion of English learners may have more difficulties implementing models that do not address the needs of their students.

School and Classroom Characteristics. These factors are also likely to influence the extent of implementation of a CSR model. Larger schools have a larger span of control; hence, they may have more difficulty in consistently implementing a reform across all classrooms and all grades (Newman et al., 1996), but may have fewer resources to support model implementation. Similarly, schools with larger classrooms may be more difficult to discipline and may have more difficulty in implementing a very prescriptive model. Furthermore, high-poverty schools may have difficulty in assembling the range and level of resources needed for implementation (Lippman, Burns, and McArthur, 1996; Berends et al., 2001).

Model Developer Support

A unique aspect of many CSR models is their developers' commitment to providing ongoing assistance to schools. External assistance in implementation has been found to strongly affect the level of implementation and the likelihood of continuation of reforms (Berends, Bodilly, and Kirby, 2002; Bodilly et al., 1998; Smith et al., 1998). External assistance to schools can take several forms, including networking with other schools; holding design fairs in which model developers provide information on the features of their models; offering workshops and retreats; conducting school visits; observing classrooms; reviewing student assessments; providing principal and teacher initial training and ongoing staff development and coaching; and supplying print materials.

District Support

District influence on school reform may be supportive, neutral, or negative. Districts can facilitate implementation of CSR models by providing resources, model-related staff development, and otherwise supporting the reform, including encouraging low-performing schools to adopt a CSR model (Fullan, 2001; Bodilly and Berends, 1999; Datnow, 2000b). On the other hand, lack of alignment of the reform with state

and/or district standards, excessive interference in school management, or excessive regulations may negatively affect CSR implementation (Fullan, 2001; DeSimone, 2000; Datnow, 2000b). When faced with such constraints, schools, in turn, have sought to adjust or tailor their models accordingly (Bodilly, 2001; Vernez and Goldhaber, 2006).

In the chapters that follow, we examine the extent to which several of these supporting factors and conditions were present in the study sample of model schools and test which of these affected implementation.

Organization of Report

Chapter Two outlines the method we have developed to measure implementation of CSR models. The remaining chapters discuss the result of applying this method to a sample of matched model and nonmodel schools. Chapter Three provides details of the sample of model schools and their matched nonmodel comparison schools and describes their general characteristics. Chapter Four discusses the extent to which schools received the support for implementation prescribed by model developers and the extent to which model schools actually implemented their chosen model design. Chapter Five compares the practices of model schools using each of the four CSR models and compares the practices of model schools with their matched nonmodel schools. The results of our analyses of factors that were associated with the implementation of CSR models are presented in Chapter Six. We conclude, in Chapter Seven, with an overall summary of findings and a discussion of their implications.

Measuring CSR Model Implementation

Before we can determine whether a comprehensive school reform (CSR) model improves student learning, we need to know whether—and how completely—it has been implemented. Measuring implementation in all the dimensions of a CSR model requires paying attention to details and accounting for what happens as individuals throughout the school interpret and act on the model design. In the past, researchers have found that the best way to meet these requirements is to perform in-depth case studies, which combine school and classroom observations with face-to-face interviews with everyone involved in the implementation process, from district administrators to teachers to students. However, this approach is expensive, limiting the number of schools and models that can be studied at any one time. As a result, researchers seldom use case studies to analyze CSR implementation and related outcomes across many schools. This helps explain why, after more than ten years, so little is known about the relative effectiveness of the various CSR models available; hence, little guidance is available to help schools choose a model that meets their needs.

As an alternative to the case-study approach, we opted to use a methodology that is cheaper and more practical for analyzing a large number of schools. We developed a set of implementation indicators, measurable via principal and teacher surveys that quantify as closely as possible the extent to which the CSR model was *actually* implemented by schools. Our approach consists of four steps:

- Develop in-depth knowledge and understanding of the philosophy and key components of each of the four CSR models under study.

- For each component of each model, identify the set of school and classroom practices and support activities prescribed by the model.
- For each prescribed practice and support activity, develop corresponding questions for principals and teachers that measure whether the item was fully, partially, or not put in place by the school.
- Based on the survey data, compute and then standardize the value of each indicator for each model school and its matched comparison school.

How each of these steps was applied for this study is discussed below.

Understanding Each Model's Philosophy and Requirements

To acquire a detailed knowledge about each of the study's four models, four staff members were designated, each responsible for acquiring an in-depth knowledge of one of the four models. The staff members reviewed available materials and visited the model's Web sites;¹ reviewed studies and evaluations of implementation effects on student achievement; attended annual conferences for principals and teachers hosted by the model developers; visited two schools for each model identified by their developers as having implemented their models successfully; and conducted face-to-face interviews with the model developers using an open-ended interview protocol. The interviews focused on the model's underlying philosophy; theory of student development; goals and objectives; core components; implementation requirements; and how the model had evolved over time (Appendix A). A brief summary of each model is presented in Table 2.1. To assure comprehensiveness and consistency across models, each model was described in terms of six core components and six support requirements, as shown

¹ The Web sites are: http://www.funderstanding.com/accelerated_schools.cfm for Accelerated Schools; <http://www.coreknowledge.org> for Core Knowledge; <http://adihome.org> for Direct Instruction; and <http://www.successforall.net> for Success for All.

Table 2.1
Description of CSR Models Included in the Study

Accelerated Schools (AS)

AS' primary goal is to bring children in at-risk situations at least to grade level by the end of the sixth grade. The model emphasizes three important components: an integrated curriculum which emphasizes language development in all subjects; a mode of instruction, Powerful Learning, which focuses on problem solving, cross-age tutoring, and cooperative learning; and a collaborative decisionmaking process involving administrators, teachers, parents and students. AS emphasizes higher-order skills, interdisciplinary/thematic instruction and a full range of electives. The curriculum applies to all students. Teachers are to take the role of learning facilitators rather than instructors. The school's decision making is supported by cadres or small groups of school stakeholders that focus on the school's most pressing needs: a steering committee, and a School as a Whole (SAW) committee that approves all major decisions on curriculum, instruction and resource allocation. The model is implemented in sequence with an initial "Taking Stock" period to assess the current situation and develop a shared vision and set priorities in the first year. Solutions to identified issues are developed in the second year and are implemented in the third year. To support schoolwide change, AS trains a designated coach (usually not from the school) and an internal school facilitator. In turn, the coach trains teachers. Overall, total annual costs are estimated at about \$65,000 yearly including the AS fees of \$45,000, but excluding teachers' release time.

Core Knowledge (CK)

Core Knowledge is based on cognitive psychology's findings that children learn based upon what they already know. It provides all students with a core foundation of facts and knowledge through a sequentially structured and systematic grade-by-grade curriculum. Although CK specifies topics that are to be covered in monthly or weekly time periods, it is designed to cover 50 percent of the curriculum allowing schools to supplement the CK sequence with the preexisting curriculum of the school. While CK specifies content, it does not specify how it ought to be taught. CK curriculum can be phased in over time or implemented all at once. Increased parental involvement is encouraged. To support implementation, teachers are to be provided with common planning time to research topics and develop curriculum and daily lessons plans. CK provides training in developing lesson plans and helps schools integrate CK content with district and state requirements. A school-based CK coordinator should be appointed to receive intensive training on CK and to serve as liaison with the CK foundation. CK staff is to make three school visits per year. CK fees are about \$45,000 in the first year and \$37,000 in year 2 and 3. In addition, schools are expected to allocate a minimum \$1,000 per teacher for CK materials and provide teachers' release time.

in Table 2.2. The core components comprehensively cover all key academic functions, teaching practices, student groupings, governance, and other vital activities. As of 2002, each of the study's four models met most of the 11 federal CSR requirements.² They all included

² See <http://www.sedl.org/csr/awards.html>.

Table 2.1—Continued

Direct Instruction (DI)

Direct Instruction is based on the theory that clear instruction and eliminating misinterpretation can greatly improve and accelerate teaching. It provides a curriculum for reading, language, writing, and mathematics that details activities for each lesson. The curriculum material is available commercially and includes a teacher's guide or presentation book. DI lessons are fully scripted and the teacher is expected to closely follow the script. Student's errors should be corrected immediately and consistently. Students should be taught in small academically homogeneous groups of 6-9 students (typically for 30 minutes per subject) and should be regularly assessed and regrouped at least three times a year. All reading classes are to be scheduled at the same time so that students can be grouped across classes. Extra reading or math periods should be provided to students functioning below grade level. DI consultants provide 24 hours of initial training and 60 hours of in-service training. They should also visit the school for 30-50 days during the year. An internal school coach should be designated to work with the external DI consultant. DI costs from \$194,000 to \$245,000 in the first year including the DI \$75,000 fees, up to \$210 per student for materials, release time for teachers, and a full-time facilitator.

Success for All (SFA)

Success for All is based on the premise that cooperative learning is most effective when integrated with instruction and curriculum. SFA is a highly structured 90-minute daily reading program from pre-K to grade 5. In early grades, it focuses on language development, then on building reading skills through phonics and whole-language methods and, in later grades, emphasizes reading comprehension, language fluency, and development of writing skills. Students should be grouped across grades by reading ability in classes of about 20 and special education students should be mainstreamed to the greatest extent possible. SFA also includes a social problem-solving curriculum titled, "Getting Along Together" (GAT). SFA expects all low-performing students and at least 30 percent of 1st graders to receive daily tutoring. Students are to be assessed every eight weeks and regrouped as needed. Parental involvement is encouraged via the assignment of 20 minutes of reading homework daily and the establishment of a family support team made up of school staff. SFA provides 3 days of initial training and its staff is to visit the schools 2-4 times a year. A full-time school staff should be appointed to serve as facilitator responsible for coaching teachers, presiding over component meetings (to be held every two weeks), and assisting in testing and regrouping students. Success for All costs about \$270,000 in the first year to cover training, including teacher release time, materials, a full-time facilitator and three tutors. If current staff are reallocated to fill the facilitator and tutor functions, the cost lowers to about \$70,000.

SOURCES: <http://www.stanford.edu/group/ASP> for AS; <http://www.coreknowledge.org> for CK; <http://adihome.org> for DI; <http://www.successforall.net> for SFA.

methods or strategies that research had found to be effective, although more of such evidence was available for Success for All and Direct Instruction than for the other two models (Herman et al., 1999). They also all required that school staff (teachers, administrators, and office

Table 2.2
Components of the Study's CSR Models

	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Core components				
Curriculum				
Content	∇	◆	◆	◆
Support materials	◆	◆	◆	◆
Methods of Instruction	◆	∇	◆	◆
Grouping of Students	∇	∇	◆	◆
Governance				
Decisionmaking processes	◆	∇	∇	◆
Assessment of Students				
Assessment of students	◆	◆	◆	◆
Review of student scores	∇	∇	◆	◆
Parental Involvement	◆	◆	∇	◆
Support requirements				
School commitment/support	◆	◆	◆	◆
Training/Professional Development				
Initial training	◆	◆	◆	◆
Ongoing staff development	◆	◆	◆	◆
Financial Resources	◆	◆	◆	◆
Model Developer Support	◆	◆	◆	◆
Internal Facilitator	◆	◆	◆	◆
Feedback on Instruction	∇	◆	◆	◆

SOURCE: Appendix A

NOTE: ◆ means the model includes explicit specifications for this component; ∇ means the model does not have explicit specifications for this component.

staff) support the model, and, to help ensure such support, they all provided initial and ongoing training and technical support and assistance to the schools, administrators, and teachers. They all advocated the regular testing of student achievement (Core Knowledge, Direct Instruction, and Success for All have designed their own student assess-

ments; Accelerated Schools has not). Finally, all models except Direct Instruction encouraged parent and community involvement.³

Federal requirements also call for all components to be integrated with each other. If comprehensive and integrated design is defined as including some form of prescription (“should have and/or do”) for each key component in Table 2.2, none of the four models fully meet this criterion. Success for All comes closest: its curriculum includes only reading and math, ignoring other academic subjects. Direct Instruction lacks prescriptions in two areas: governance and parental involvement. Its curriculum is also limited to reading/language arts. Accelerated Schools also lacks prescriptions in two areas: curriculum content and student groupings. Finally, Core Knowledge lacks prescriptions in three areas: methods of instruction, groupings of students, and governance. Core Knowledge, however, is the only one of the four models that offers a fully integrated curriculum across grades in all academic areas.

Identifying Practices and Support Activities Prescribed by the Models

In this step, our understanding of each model and its components was translated into a set of model requirements, practices, and support activities that a school *should have or do* in order to faithfully implement the model in all of its dimensions. Table 2.3 illustrates the outcome of this step for one component of each model. Appendix B contains a complete list of “should have or do” statements for each component of each model.

³ The characteristics of models were those specified by the models in 2002. Modifications to these models may have been made since then. According to the U.S. Department of Education, a CSR approach must include the following: employ proven methods based on scientifically based research; have aligned components; provide professional development for teachers and staff; include measurable goals for student achievement; support from all school staff; provide support for teachers, administrators, and staff; provide for parent and community involvement; use external technical support and assistance from a partner with expertise in CSR; plans for evaluation of implementation and effects; resources to support and sustain the effort; evidence of effectiveness to improve student achievement. See <http://www.ed.gov/policy/elsec/leg/esea02/pg13.html>.

Table 2.3
Illustrative Model “Should Have or Do” Statements

Accelerated Schools (AS): Methods of Instruction

- Instruction should be tied to the school’s written goals.
 - All teachers should be implementing Powerful Learning in their classrooms (after one year).
 - Teachers should expect all students to learn at high levels.
 - Instruction should reflect a constructivist philosophy (e.g., hands-on activities; building on students’ prior knowledge, interests, and strengths).
 - Instruction should be individualized to suit students’ varying learning styles and needs.
 - Teachers should broaden instruction to include community values and resources.
 - Teachers should connect instruction to real-life situations.
 - Collaborative learning should occur in classrooms.
 - Teachers should use the Inquiry Process to make decisions about student learning.
 - Students should practice/develop self-critiquing and revision skills.
 - All students should have access to the same challenging curriculum.
-

Core Knowledge (CK): Curriculum

- A specified core of topics and facts should be covered sequentially from grade to grade in each of the following academic areas: Language Arts, Mathematics, Sciences, History, and Visual Art.
 - A detailed yearlong plan should be developed that specifies all items that will be covered (including each story, poem, and speech), state standards, and skills to be taught.
 - The topics should be covered in monthly or weekly time periods.
 - An approved structured reading program should be used, for instance: Open Court, Direct Instruction, or Success for All.
 - An approved mathematics program should be used, for instance: Direct Instruction, Saxon or Singapore.
 - All grades should use CK.
 - CK curriculum covers 50 % of each grade’s curriculum.
 - CK curriculum should be aligned with state and district standards.
-

Direct Instruction (DI): Groupings of Students

- Students should be grouped in classes by performance.
 - Within classes, students should be placed in homogenous small groups of 6–9 children according to performance level by the end of the first week of school.
 - Reading and language should be at the same time for all classes in a grade to allow for cross-class groupings.
 - Cross-grade grouping should not involve more than two grades.
 - Low-performing students should be in smaller groups that are seated closest to the teacher.
 - Children should be placed in groups that are functioning at their independent reading level.
 - Formal regrouping should occur after the first week, three months, and five months. If obviously inappropriate, regrouping should be done immediately.
 - Regrouping should be done in consultation with the contractors.
-

Table 2.3—Continued

Success for All (SFA): Methods of Instruction

- All certified staff in the building should teach a reading class.
 - There should be at least one certified tutor in school. Certified staff should provide supervision of assistants and volunteers.
 - 30% or more 1st graders should be tutored regularly.
 - 1st graders should be given tutoring priority.
 - Tutoring sessions should be at least 20 minutes/day and mirror class content.
 - Teachers should communicate with reading tutors regularly and communication should be well documented.
 - Students should read at home for 20 minutes each night. Most students (80%) should return their home reading forms weekly.
 - Students should often work collaboratively (emphasis is placed on individual accountability, common goals, and recognition of group success).
 - All or almost all special education studies should be using SFA curriculum. Teachers can make adaptations where necessary.
-

Although all four models may prescribe a given component, the detailed requirements, activities, or practices prescribed for that component differ between models. For instance, prescriptions for method of instruction differ markedly across the four models. Accelerated Schools focuses on instructional techniques that are individualized, hands-on, collaborative, relate to community values and real-life situations, and emphasize self-critiquing and revision skills. By contrast, Success for All focuses more on tutoring and reading at home and less on classroom instruction techniques. The only common emphasis is on collaborative learning and on having all students use the same curriculum. Direct Instruction, in turn, emphasizes teaching techniques that are very different from those of Accelerated Schools, such as asking students to respond in unison, emphasizing keywords by pausing before pronouncing them, correcting errors immediately, and repeating steps until 90 percent of students' responses are firm and fluent. Finally, Core Knowledge offers no prescription regarding methods of instruction. Overall, the components of the four models differ broadly in types of activities and emphasis.

The “should have or do” statements developed for each model served as indicators of full implementation. (A complete list is shown in Table 2.4.) For instance, Success for All prescribes that “students should be grouped by performance.” Hence, the extent to which students are

Table 2.4
Implementation Indicators for AS, CK, DI, and SFA

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Curriculum Content					
Teachers teach at least 1 hour of reading per day for DI and 1.5 hours per day for SFA			X	X	X
Teachers agree "reading curriculum is well aligned with state standards"	X	X			X
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	X		X		X
Teachers agree "curriculum/instruction materials are well coordinated across levels"	X	X	X		X
Teachers use yearlong plan to minimize curriculum overlap		X			X
Teachers contribute to the development of the yearlong plan or pacing guide		X			X
Teachers consult the yearlong plan/pacing guide on a daily basis			X		X
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster		X	X	X	X
CSRM is used for reading instruction at each grade level		X		X	
CK history and geography curriculum is used in all grades		X			
School provides teachers with at least 90 minutes per week for structured planning time		X			
Teachers use "getting along together" strategies in their classroom every school day				X	
Curriculum Supporting Materials					
School provided materials with "CK Sequence," "What Your X Graders Need to Know," "CK K-8 Guide," "Dictionary of Cultural Literacy"		X			
100 % of the reading materials teachers use are produced by model developer				X	
School uses SFA reading materials for Spanish-dominant children				X	
Most or all special education classes uses SFA				X	

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Methods of Instruction					
At least 75% of other reading teachers are certified				X	X
Students work collaboratively in groups or pairs during reading instruction every school day	X			X	X
Teachers devote more than 75% of their instructional time on “students doing hands-on activities”	X				X
Teachers devote more than 75% of their instructional time on “developing higher-order thinking skills”	X				X
Teachers devote more than 75% of their instructional time on “students’ individual exploration”	X				X
Teachers devote more than 75% of their instructional time on “activities based on real-life situations or issues”	X				X
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	X				X
Teachers devote more than 75% of their instructional time on “thematic instruction”	X				X
Teachers agree “all students in their class can achieve high standards”	X				X
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”			X		X
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons			X		X
Teachers assign 20 minutes of reading homework every school day				X	X
Teachers teach at an instructional level that is higher than the level of most of the students				X	X

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Students receive supplemental tutoring in reading			X	X	X
Tutored students receive tutoring every school day			X	X	X
Tutored students receive one-on-one tutoring				X	X
Percentage of students are receiving tutoring (53 AS, 45 CK, 55 DI, 53 SFA)			X	X	X
At least 30% of first graders in the school are tutored at least weekly				X	
Teachers award team points to teams that effectively use the cooperative learning standards every school day				X	
Teachers use the Inquiry Process to a great extent to make key decisions about student learning	X				
Teachers use Powerful Learning Framework to a great extent to inform lesson plans in all academic areas	X				
Grouping of Students					
Students are assigned to reading classes based on current academic performance			X	X	X
Students in reading classes or groups are at about the same reading skill level			X	X	X
Student tests are used to assign students to reading classes at least every 9–11 weeks for DI and 6–8 weeks for SFA			X	X	X
Student tests are used to assign students to reading groups at least every 9–11 weeks for DI and 6–8 weeks for SFA			X		X
Students with lowest reading skills are placed in smaller reading groups			X		X
Teachers teach reading to students in small groups most of the time			X		X
Reading groups have no more than 4 students for SFA and 9 students for DI			X	X	X
Classes have 20 or fewer students				X	

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Governance					
Teachers agree “all staff and administration have a strong sense of school purpose”	X				X
Principal agrees “I rely on a consensus decisionmaking process in my school”	X				X
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	X				X
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum, allocating school budget”	X				X
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	X				X
School steering committee meets at least weekly	X				X
Stakeholders always participate in school steering committee	X				X
The school has 5 or more working groups	X				X
Teachers participate weekly in working groups addressing curriculum	X				X
Teachers participate weekly in working groups addressing parental involvement	X				X
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	X				X
The principal participates weekly in the curriculum and instruction working group	X				X
Teachers formally meet weekly to develop or review student assessments				X	X
Teachers formally meet weekly to discuss instruction				X	X
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies and develop or revise curricula”	X	X			X

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
At least 80% of teachers work on a cadre	X				
Cadre plans are “always brought through the steering committee and school as a whole for final decisions”	X				
Assessment of Students					
School assesses students on reading multiple times per marking period	X	X	X	X	X
Teachers review student scores with principal after all assessments			X	X	X
Teachers review student scores with school coach after all assessments			X	X	X
Teachers review student scores with external coach after all assessments			X		X
Parental Involvement					
Parents always participate on school steering committee	X			X	X
A parental involvement working group meets weekly				X	X
Percentage of parents who attend special events		X		X	X
Percentage of parents who attend education workshops		X		X	X
Percentage of parents who volunteer		X		X	X
Percentage of parents who attend school committees or working groups	X	X		X	X
Teachers require parents to sign reading homework				X	X
At least 96% of students return homework signed by parents				X	X
Professional Development					
Principal received 16 hours of professional development training for CK this year, 42 hours for AS, 40 hours for DI	X	X	X	X	

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Teachers received 20 hours of professional development training for CK this year, 42 hours for AS, 40 hours for DI	X	X	X	X	
Principal attended all or most leadership team training and network meetings this year	X				
To a great extent, the school’s professional development is “the result of plans developed through the Inquiry Process”	X				
Feedback on Instruction					
Teachers receive weekly formal feedback on their teaching from principals		X	X		X
Teachers receive weekly formal feedback on their teaching from school staff		X	X	X	X
Teachers receive weekly formal feedback on their teaching from contractor		X	X	X	X
Teachers receive weekly formal feedback on their teaching from parents		X			X
Teachers receive weekly formal feedback on their teaching from district staff		X	X		X
Resources					
Principal disagrees “school has insufficient funds to support full implementation of Model”	X	X	X	X	
Model Developer Support					
School has external consultant who assists in implementing schoolwide improvement programs	X	X	X	X	
CSRM staff visited AS schools 36 days, CK schools 6 days, DI schools 30 days, SFA schools 4 to 6 days	X	X	X	X	
Principal agrees “model staff provide adequate support to the school”	X	X	X	X	
Frequency principal met with external consultant	X	X	X	X	

Table 2.4—Continued

	Indicators Measured for Model Schools				Indicators Measured for Model and nonmodel Schools
	AS	CK	DI	SFA	
Teachers interact formally with external consultant for implementation of improvement programs	X	X	X	X	
Frequency teachers met with external consultant	X	X	X	X	
Internal Facilitator					
Staff member spends time coordinating schoolwide improvement programs 100% time for DI and SFA, 25% time for AS, and 33% time for CK	X	X	X	X	
Frequency principal met with internal facilitator	X	X	X	X	
Frequency teachers met with internal facilitator	X	X	X	X	
School Support					
Principal agrees “most teachers are fully committed to using CSR model”	X	X	X	X	
Principal agrees “most parents are supportive of CSR model”	X	X	X	X	
Teachers strongly agree “principal is committed to using CSR model”	X	X	X	X	
Teachers strongly agree “teachers are committed to using CSR model”	X	X	X	X	
District Support					
Principal disagrees “state and/or district policies and regulations impede school’s efforts to improve student performance”	X		X		
District gives the school all the support it needs to implement schoolwide programs	X	X	X	X	

grouped in every classroom would indicate full or relative implementation of this specific prescription. Similarly, Direct Instruction prescribes that within classes, “students should be placed in homogenous small groups of 6–9 students.” Whether teachers actually grouped their students according to academic achievement would indicate full, partial, or nil implementation of this prescription. Other model prescriptions include a numerical requirement. For instance, all four models require that model staff visit the schools a prescribed number of days during the first few years of implementation. The frequency of actual visits, compared to the requirement, indicates the extent of conformance.

Designing Surveys to Measure CSR Implementation

In developing the principal and teacher questionnaires used in the survey, we started with specific questions related to each model, and then expanded these questions to encompass most school activities. The list of model-specific “should have or do” statements developed for each of the four models guided the initial development of the questionnaires. The study staff member that had specialized in a particular model developed a combined principal and teacher set of survey questions to measure each model-specific indicator. The entire team then compared the questions for similarity of information sought across models. We developed wording for overlapping questions that were applicable to all models and all schools, including comparison schools. Questions focusing on a component unique to one or two models were also reviewed to see if they might apply to other model and comparison schools. Eventually, principal and teacher survey questionnaires were designed to the maximum extent feasible to be applicable to all schools included in this study, in spite of differences in model philosophy and components and whether they were implementing a model or not.

Our approach is designed to maximize our ability to analyze a wide range of schools, both model and nonmodel. CSR models often combine a set of “best” or “promising” practices that any school can apply. We therefore chose a generic approach to questionnaire design because we hypothesized that any given component of any CSR model

might be practiced in a wide range of model and nonmodel schools, and that our data collection (and eventually analyses) should account for this possibility.⁴ Without having to compromise on including all key practices required by each model, generic surveys allowed for the possibility that nonmodel schools also practiced one or more of the study models' core components.

However, we also wished to gather model-specific data. Therefore, a limited section at the end of the surveys focused specifically on the unique dimensions of each model. Model-specific sections were included only in the surveys sent to the applicable model schools.

Developing generic principal and teacher questionnaires presents a number of challenges. Survey questions should capture each key model requirement, along with practices common to both model and non-model comparison schools. Also, the different terms used by the model developers to refer to similar activities or practices must be translated into a common language.

In our study, the process of developing final questionnaires required five iterations until we were satisfied that the items included in the questionnaires would generate the information needed to assess the implementation status of the most important model components. After drafting an initial questionnaire, the four model developers (the outside consultants responsible for the initial development of each model) were asked to review them for completeness and adequacy of coverage. They also were asked to assess whether the questions accurately measured implementation of each of their respective model components, and to suggest changes. To facilitate their review, we indicated next to each "should have or do" statement the number of the relevant question(s) meant to measure it.

After we revised the questionnaires to incorporate most of the model developers' comments and suggestions, model developers were asked to review the questionnaires a second time. Once we had incor-

⁴ An alternative, and certainly simpler approach, would have been to develop questionnaires specific to each of the models. The model developers would have preferred this approach as they felt that the unique characteristics of their respective model would be better captured, but it would have prevented our making comparisons across models and between model schools and nonmodel schools.

porated their suggestions, but prior to finalizing the questionnaires, we performed two rounds of pilot testing with teachers and principals.⁵ The pilot test focused on comprehension and on assessing between-school variability.

Computing Implementation Scores

Implementation Scores for Individual Indicators

Using the data of principal and teacher surveys, implementation scores were computed for each school, for each indicator, for each model, and for each survey year. The value of each indicator was computed relative to the maximum value (the value assigned to full implementation). This maximum value was then standardized in order to allow comparison across indicators of different types and to enable aggregation of individual indicator scores into a score for each model component and an overall model implementation score for core components for each school.⁶

Standardization for each type of indicator was performed as follows:

- *Categorical variable* (e.g., Yes/No variable):
 - 2 = Yes, requirement is met
 - 0 = No, requirement is not met
- *Scales* (i.e., strongly agree to strongly disagree with a prescribed practice or behavior):
 - 2 = strongly agree or agree
 - 1 = Neither agree or disagree
 - 0 = disagree or strongly disagree
- *Scales* (i.e., four of five level frequencies of doing a prescribed practice):
 - 2 = Highest frequency met

⁵ See Chapter Three for a description of the content of the principal and teacher questionnaires. The complete questionnaires are included in Appendix D.

⁶ The choice of a value of 2 to indicate “full” implementation of each model-prescribed requirement is somewhat arbitrary. Any other value could have been chosen as long as it is applied consistently across all indicators.

- 1.5 or 1.4 = second-highest frequency
- 1.0 or .7 = third-highest frequency
- .5 = fourth-highest frequency
- 0 = never or do not do
- *Continuous variable* (i.e., how much time or how often a prescribed practice is done):
 - 2 = Meet or exceed requirement
 - 0–1.99 = Proportional fraction of requirement

To illustrate, if teachers in a Success for All school reported that they assigned 20 minutes or more of reading every school day, as prescribed by the model, the school (and any other school whose teachers responded similarly) would receive a score of 2, signifying full implementation. Schools whose teachers reported assigning 20 minutes or more of reading two to four times a week, once a week, less than once a week, or never, would receive a score of 1.5, 1.0, .5, or zero, respectively. Similarly, schools whose principals reported they strongly agreed or agreed with the statement that “Most teachers in my school are fully committed to using CSR model X” would receive a score of 2 for full implementation for model X. Schools whose principals responded that they “neither agreed or disagreed” would receive a score of 1.0; schools whose principals “disagreed or strongly disagreed” would receive a score of zero.

There were up to six teacher respondents per school on each teacher survey item in our study (see Chapter Three). To compute a school value for each indicator, the standardized scores were simply averaged for each indicator from all teacher respondents in the school.

Aggregating Across Indicators

The individual indicators computed as described can then be aggregated to generate:

- An overall implementation score for each model’s core and support components for each school.
- An overall implementation score for the key components for each school.
- An overall implementation score for each model.

To compute these component, school, and model implementation scores, we again simply averaged the values across indicators.⁷

Limitations

The approach used by this study to measure the extent of CSR model implementation offers two advantages. It is applicable across a large number of schools, and it allows the measurement of similar practices across schools that implement different CSR models as well as schools that do not.⁸ It enables the level of implementation to be measured when seeking to analyze how effective a CSR model has been.

Nevertheless, there are limitations to this approach. Although we attempted to be as comprehensive as possible, given survey length constraints, not all dimensions of each model could be measured. For instance, we could not readily measure certain classroom practices, such as the time spent reading in small groups with students working independently or collaboratively. Similarly, although teachers were asked whether they followed the pacing guide, we did not obtain information as to whether they were covering all of its content over the year. Choices were made regarding the level of detail that could be covered. In these choices, we relied primarily on model developers to identify those model components they felt to be the most important.

Although model developers agreed that our list of indicators and questionnaires covered the key aspects of their respective models, they also indicated that we may not have been measuring all that mattered because of constraints on the questionnaire's length. Arguably, the depth with which a teacher pursues every aspect of a prescribed curriculum, follows a prescribed method of instruction, or is involved in school decisionmaking cannot be adequately measured through one-point-in-time self-reports from teachers. However, and as will be seen in subsequent chapters, our approach permits us to measure variations in the level of implementation of model practices across schools implementing the same model, and between model schools and comparison schools.

⁷ Arguably, all components of a model may not be equally important. However, in the analyses presented in this report, we weighed all indicators equally.

⁸ While the approach is broadly applicable, the conceptual framework and the survey instruments may vary somewhat depending on the reform model and the level of schooling.

Sources of Data

In order to capture changes within schools over time, we sought to collect data from a longitudinal sample of two types of public elementary schools: a sample of model schools self-reporting that they were using Accelerated Schools, Core Knowledge, Direct Instruction, or Success for All, and a sample of comparison schools that had not implemented one of these four CSR models. For all schools, the principal and a random sample of six teachers (one per grade) were selected to respond to a mail questionnaire.

The first section of this chapter describes the universe of public elementary model schools, the selection of the initial sample of model schools, and subsequent replacements of schools that either declined to participate or had discontinued use of the model. The next section describes the characteristics of all schools (model and nonmodel) that participated in the study. The characteristics of the model and matched comparison schools are compared next. The topics included in the surveys of principal and teachers are then discussed, along with our approach to account for missing data. The chapter closes with a discussion of the limitations of the sample.

Our sampling strategy and the adjustments made along the way are described here in greater detail than is usually the case for similar studies. As other researchers have previously found (Berends, Bodilly, and Kirby, 2002; Taylor, 2005; Lockwood, Waller, and Walawender, 2006), the universe of schools using CSR models is difficult to pinpoint at any one time. New schools initiating comprehensive school reform are constantly added; others abandon the effort, often within the first few years; while still others change from one model to another. As a

result, maintaining a longitudinal sample of adequate size for statistical analysis proved to be more challenging than expected. Documenting these challenges should be of interest to researchers who are considering undertaking large-scale longitudinal comparative analyses of comprehensive school reform models in the future, or of school improvement more generally.

Samples of Model Schools

Universe of Model Schools

The initial sample of model schools was drawn from the 2002 “universe” of elementary schools¹ known to be implementing one of the four study models in the states of Florida and Texas. A list of schools was first obtained from the respective developers of the four models. This list was complemented with a list of schools receiving Comprehensive School Reform Demonstration (CSRSD) federal funds from a list maintained by the Southwest Educational Development Laboratory (SEDL). As none of these lists were being updated regularly, they contained schools that no longer were using the model specified. Also, the developers’ lists included schools that were no longer officially affiliated with the model developer (i.e., no longer receiving developer support).

The size of the universe of model schools ranged from 36 Core Knowledge schools (in Texas) to 79 Direct Instruction schools (also in Texas) (Table 3.1). There were no Accelerated Schools in Florida. Overall, 20 percent of the schools in the universe for which “start-date” information was available indicated they had implemented the model within the last three years before the year 1 surveys. (Year 1 surveys were sent in the spring of the 2001–2002 school year.) Accelerated Schools had the highest share (78 percent) of recent implementers; Core Knowledge had the lowest share (18 percent).

¹ Private and charter schools were deleted from the universe because they are typically managed differently than public schools and are qualitatively different. Schools not offering grades K through 5 were also excluded from the sample.

Table 3.1
Universe of Model Elementary Schools, by State and Year of Model Adoption, 2002

Model State	Year of Model Adoption							Total
	Pre-1996	1996	1997	1998	1999	2000	2001	
Accelerated Schools								
Texas	0	0	9	0	25	1	5	40
Core Knowledge								
Florida	7	2	21	12	1	0	0	43
Texas	7	5	7	4	10	1	2	36
Direct Instruction								
Florida	—	—	—	—	—	—	—	36
Texas	—	—	—	—	—	—	1	79
Success for All								
Florida	1	—	15	15	11	3	0	45
Texas	4	15	24	22	7	0	2	74
Total	19	22	76	53	54	5	10	353

NOTE: Dash means year of first implementation was not available.

Year 1 Initial Sample

The target was to select 36 model schools for each model in each state in order to obtain enough data to detect an effect on student achievement.² If the state had an equal, or fewer, number of schools in the 2002 universe, all schools were contacted for participation in the study. Where the universe of schools exceeded the initial target of 36 schools, we first selected all recent implementers; that is, schools that first implemented their respective model in 1999 or later. The first few years of implementation are expected to be the most difficult; hence, we wanted

² We estimated that to detect a .25 effect size assuming an intraclass correlation (ICC) of .122 would require a minimum of 26 schools per state, and, assuming a 70 percent school enrollment rate in the study, we needed an initial sample of 36 schools.

to maximize the number of such schools in the study sample. Second, we drew a proportional stratified random sample of schools based on student enrollment and percent minority.

Fifty percent of the schools in the prospective sample were enrolled in the study. Eighteen percent of the schools had to be dropped from the sample because they were located in districts that refused to allow their participation in the study. The remaining were not enrolled because they reported no longer using the model attributed to them, or because they declined to participate.³ Where feasible, we replaced nonparticipating schools with schools having approximately the same social and economic characteristics (students eligible for free or reduced lunch, students with limited English proficiency, and minority students).

Initially, after contacting the 36 prospective schools, our target was to enroll 25 or more schools for each model in each state. This target was met in Florida but not Texas for Direct Instruction, and in both Florida and Texas for Success for All (Table 3.2). The target was not met for Core Knowledge in either state, and was not met for Accelerated Schools in Texas. Twenty-six percent of the sample schools were recent implementers. An equal percentage had been using the model for six years or more.

Ultimately, our baseline sample included all the model schools in Florida and Texas that were known to still be using the model attributed to them, were willing to participate, and whose districts allowed participation. However, because participation was limited, the schools included in our study are not necessarily representative of the universe of model schools in Florida and Texas in 2002. Overall, a total of 170 model schools were enrolled.

Year 2 and Year 3 Samples

In year 2, and again in year 3, all schools that had participated in the survey in the previous year as well as the schools that had refused participation in the previous year, were recontacted for continuing or new participation in the study. Fifty-two percent of Year 1 participating schools were enrolled for Year 2 surveys. Twenty-two percent of

³ A \$100 participation incentive per year was offered to the school.

Table 3.2
Number of Model Schools Surveyed, by State and Year of Model Adoption

Model State	Year of Model Adoption								Total
	NA	Pre-1996	1996	1997	1998	1999	2000	2001	
Accelerated Schools									
Texas	—	0	0	5	0	13	0	5	23
Core Knowledge									
Florida	—	3	1	8	7	1	1	0	21
Texas	2	4	2	1	0	2	0	2	13
Direct Instruction									
Florida	27	NA	NA	NA	NA	NA	NA	NA	27
Texas	22	NA	NA	NA	NA	NA	NA	1	23
Success for All									
Florida	—	1	13	8	9	3	0	0	34
Texas	—	4	6	8	7	2	0	2	29
Total	51	12	22	30	23	21	1	10	170

NOTE: NA means start date not available; — means not applicable

the Year 1 schools were lost in Year 2 because they reported no longer using the model, and another 26 percent chose no longer participating (Table 3.3). Overall attrition in the baseline sample was highest for Accelerated Schools (61 percent) and lowest for Direct Instruction (36 percent). In addition, about 4 percent of schools changed the model they were using. To compensate for this loss, we recontacted the model developers and reviewed the SEDL list to replenish the sample with schools known to have newly implemented one of the study's models between the two survey years. Added in Year 2 were five schools using Accelerated Schools, nine using Core Knowledge, four using Direct Instruction, and three using Success for All. Similarly, in Year 3, three Core Knowledge and four Success for All schools were added to the sample.

Table 3.3
Change in Model School Status Between Year 1 and Year 2

Model	Number of Schools Surveyed Year 1	Status of Schools in Year 2			
		Participated and Used Same Model	Participated, But Used Different Model	Discontinued Use of Model	Refused Participation
Accelerated Schools	23	9	0	8	6
Core Knowledge	34	13	5	7	9
Direct Instruction	50	32	—	5	13
Success for All	63	28	1	18	16
Total	170	82	6	38	44

The resulting sample of participating schools and the number and percentage of returned principal and teacher surveys in each of the three survey years are shown in Table 3.4. Overall, response rates for principals ranged from 79 percent in Year 1 to 62 percent in Year 3; response rates for teachers ranged from 75 percent in Year 1 to 64 percent in Year 3. Response rates were generally similar for all models.

Adjusting Model Status

Because of the large number of schools that reported having changed model status between Years 1 and 2, we added a question in subsequent surveys of principals and teachers asking about the model actually used in the school. In 21 percent of model schools in Year 2 and one-third of schools in Year 3, principals and/or teachers reported that they were not using the model reported by the school representatives contacted shortly before sending the surveys (Table 3.5). Whatever the reasons for this discrepancy may be, it suggests that in determining the CSR model status of a school, the reports of several school staff ought to be obtained. Whenever the surveyed staff reported that their school was not using the model attributed to them, the school model status was

Table 3.4
Participating Sample of Schools and Returned Surveys by Principals and Teachers, by Model and Survey Year

Model / Survey Year	Model Schools Sent Surveys	Returned Principal Surveys		Returned Teacher Surveys	
		N	Percentage	N	Percentage
Accelerated Schools					
2002	23	19	83	99	72
2003	28	17	61	115	68
2004	27	15	56	101	62
Core Knowledge					
2002	34	30	88	151	74
2003	34	29	85	140	71
2004	30	24	80	114	63
Direct Instruction					
2002	50	35	70	65	72
2003	61	37	61	234	64
2004	65	37	57	256	66
Success for All					
2002	63	51	81	295	78
2003	61	43	70	247	67
2004	61	38	62	225	61
Total					
2002	170	135	79	610	75
2003	184	126	68	736	67
2004	183	114	62	696	63

adjusted to that reported, or, if none was used, it was deleted from the sample.

Longitudinal Sample

The high incidence of changes in model status of schools and the relatively high attrition in participation experienced from year to year significantly reduced the study's longitudinal sample of schools with data for all three years. Three-year data are available for only 6 Accelerated Schools, 4 Core Knowledge schools, 23 Direct Instruction schools, and

Table 3.5
School Model Status Reported by School Representatives and by Principals and Teachers, by Model and Survey Year

Model / Status	Survey Year		
	2002	2003	2004
Accelerated Schools (AS)			
Sent AS surveys	23	28	27
Reported use of AS	23	21	14
Core Knowledge (CK)			
Sent CK surveys	34	34	30
Reported use of CK	27	20	15
Direct Instruction (DI)			
Sent DI surveys	50	61	65
Reported use of DI	50	61	52
Success for All (SFA)			
Sent SFA surveys	63	61	61
Reported use of SFA	59	46	44
Total			
Sent model surveys	170	184	183
Reported use of model	159	148	125

27 for Success for All schools. Accounting for the number of schools for which data was collected for two consecutive years, the largest number of schools for which we had at least two consecutive years of data was 47 for Direct Instruction. Considering that these schools in this longitudinal sample first implemented their model between 1 and 11 years before our first wave of data collection, we had an average number of observations for 1.6 to 4.7 schools per year, an annualized number of observations inadequate to reliably assess year-to-year changes within schools in level of implementation (see Table C.1, Appendix C).

Cross-Sectional Analytical Sample

Given the year-to-year size limitations of the longitudinal sample, we built a cross-sectional analytical sample that maximized the use of the data collected in all three years. This sample includes a single-year observation from all schools surveyed at least once over the study's

three years.⁴ For schools with multiple observations, we selected the year of observation that maximized the number of responding principals—that is, the year in which the principal responded—or, in case of ties, we chose the first year of observations for that school. Sample size in this cross-sectional sample varied from 36 schools for Accelerated Schools to 93 schools for Direct Instruction (Table 3.6). Overall, principal response rates in this sample ranged from 78 percent for Direct Instruction to 93 percent for Core Knowledge; for teachers, they ranged more narrowly from 69 percent for Core Knowledge to 73 percent for Direct Instruction.

Matched Comparison Schools

Comparison schools matching the model schools one-on-one were selected from the list of public elementary schools in each state. The comparison schools were known not to be implementing a comprehensive school reform model of any type.⁵ To the extent feasible, each sample model school was matched with a comparison school with similar socioeconomic characteristics (i.e., the numbers for the comparison school were within 10 percent of the model school for student enrollment, percentage of students eligible for free and reduced lunch, percentage of students with limited English proficiency, and percentage of minority students). To the extent possible, schools located within the same district were selected, or, if not in the same district, within the same urban, suburban, or rural environment. If more than one school qualified, one was selected randomly. If no matching schools were iden-

⁴ We chose one observation by schools instead of using all observations available for each school because multiple-year observations from the same school were not independent of one another and would have biased the results toward schools with multiple observations.

⁵ The list of elementary schools in each state was downloaded from the Web site of these states' department of education, and the list of schools using a comprehensive school model was obtained from the list maintained by SEDL. The latter list, however, does not include schools that did not receive federal CSR funds, using either their own or funds from other sources. To control for this eventuality, we asked respondents in all schools, including comparison schools, whether they were using a comprehensive school reform model and of what type.

Table 3.6
Schools and Returned Surveys by Principals and Teachers in Cross-Sectioned Analytical Sample

Model Type	Number of Schools	Returned Principal Survey		Returned Teacher Survey ^a	
		N	Percentage	N	Percentage
Accelerated Schools					
Model	36	32	89	154	71
Comparison	30	23	77	128	71
Core Knowledge					
Model	42	39	93	173	69
Comparison	37	32	86	176	79
Direct Instruction					
Model	93	73	78	408	73
Comparison	65	51	78	275	71
Success for All					
Model	79	68	86	331	70
Comparison	58	48	83	259	74
Total					
Model	250	212	85	1,066	71
Comparison	190	154	91	838	74

^a Two or more teachers responded in each school

SOURCE: RAND-University of Washington surveys

tified within the 10 percent criterion, a school was selected from the pool of schools within 15 percent of the matching indicators.

In subsequent years, comparison schools that were no longer willing to participate or reported being newly engaged in comprehensive school reform were replaced with a new matched comparison school using the same procedure as noted above. In several instances, a comparison school was used for more than one model school (see Table 3.6).

Characteristics of Model and Nonmodel Comparison Schools

Because of the way the sample of matched comparison schools was selected, the socio-demographic and geographic characteristics of model and comparison schools are generally similar (Table 3.7). The median size of schools varied within a narrow range of 468 to 624 students, with differences between model and comparison schools not exceeding 10 percent. AS and CK model schools were similar with regard to their median percentage of students receiving free and reduced lunch and students that were minority (about 50 percent). Their matched comparison schools were similar with respect to these factors, but comparison schools to CK had a somewhat lower percentage of free and reduced lunch (39 versus 49 percent).

DI and SFA schools had high percentages of minority students (80 percent or more) and students receiving free or reduced lunches (two-thirds or more), as did their matched comparison schools.

Table 3.7
School Characteristics of Model and Comparison Schools

Model Type	Number of Students Enrolled	Percentage of Students Receiving Free/Reduced-Cost Lunch	Percentage of Minority Students	Percentage of Schools Located in Urban Areas	Percentage of Schools Located in Rural Areas
Accelerated Schools					
Model	468	46	55	38	24
Comparison	519	45	55	43	36
Core Knowledge					
Model	600	49	44	38	19
Comparison	624	39	44	36	23
Direct Instruction					
Model	594	74	95	58	10
Comparison	605	67	85	46	17
Success for All					
Model	525	67	81	50	21
Comparison	545	62	79	49	26

SOURCE: RAND-University of Washington surveys

Both model schools and comparison schools were similarly distributed between urban, suburban, and rural areas. DI and SFA schools in the sample and their comparison schools were slightly more likely to be urban than AS and CK schools and their matched comparison schools (38 versus 50 or more percent).

Principal and Teacher Data Collection

Data Collected

Mail surveys were sent to principals and six teachers of both model and comparison schools in the spring of school year 2001–2002, 2002–2003, and 2003–2004. We randomly selected one teacher for each of the grades K–5, for a total of six teachers in each school. To be eligible for participation in the study, teachers were required to be teaching reading/language arts. A new sample of teachers was drawn for each wave of surveys.

Overall, principal response rates in the cross-sectional analytical sample ranged from 78 percent for Direct Instruction to 93 percent for Core Knowledge. Teacher response rates ranged more narrowly from 69 percent for Core Knowledge to 73 percent for Direct Instruction (Table 3.6). Survey response rates for comparison schools were similar to those for model schools. For principals, they ranged from 77 percent returned surveys for AS comparison schools to 83 percent for SFA comparison schools. Teachers' responses ranged from 71 percent for DI comparison schools to 79 percent for CK comparison schools.

The principal and teacher surveys were designed to provide measures of the curriculum, instruction, governance, parental involvement, student assessment practices, and other school improvement activities and support, including the use of a school improvement facilitator and model developer support in both model and nonmodel comparison schools (Table 3.8). In addition, principals and teachers in model schools were also asked about the implementation of requirements that were unique to the particular model used by their school. They were also asked about their knowledge of model core requirements and about the extent of their support for the model.

Table 3.8
Type of Data Collected in Surveys of Principals and Comparison Schools

Type of Data	Principal Surveys	Teacher Surveys
Model and Comparison Schools		
• Curriculum characteristics		√
• Student groupings	√	√
• Instructional strategies		√
• Tutoring		√
• Governance characteristics	√	√
• Student assessments	√	√
• Teacher feedback		√
• Parental involvement	√	√
• School improvement activities	√	√
• Support for school improvement activities		
– internal	√	√
– model/consultant	√	√
– district	√	
• Professional development	√	√
• School climate/characteristics	√	√
Model School Only		
• Resources for model implementations	√	
• Principal support for model	√	√
• Teacher support for model	√	√
• Parent support for model	√	
• Specific model requirements	√	√

As described in Chapter Two, the questionnaires were generic and were sent to all four types of model schools and their matched comparison schools. We used two versions of the questionnaires, one in the first survey year and one in the second and third survey years. The two forms of the questionnaires differed only slightly. The first questionnaire included one-time-only retrospective questions about how and why the school's model was selected and about initial training. These questions were deleted in the second version. The second version also deleted a handful of questions with low variance across schools because

they provided little information, and added more detailed questions about implementation support from internal facilitators and model developers. These questionnaires are included in Appendix D.

Imputations for Nonresponses

In all three survey years, there is a subset of schools for which teacher responses were received but the principal did not respond; thus the teacher indicators are available for those schools but the principal indicators are not. We accounted for this missing data, as well as missing teacher item responses, using the data imputation plan described in Appendix E.

Discussion and Limitations

The rigorous study of the implementation and effectiveness of CSR models, and more generally of most educational reforms, is made particularly difficult because of the lack of sustained commitment. As we have experienced in this study and others have recently noted as well, a significant proportion of schools that adopt a CSR model abandon use of that model, most often within the first three years of their adoption. In our study, about 40 percent of schools initially enrolled had dropped their model or adopted a different model within the following two years. Another 25 percent of schools in Year 1 decided not to continue participating. That left too small a sample of schools for credible longitudinal analysis.

Our study has three potential limitations. First, and as noted above, a number of schools either declined, or were barred from participation by their district. These schools may have chosen not to participate for reasons that have nothing to do with the model or because of a negative experience with the model. The former may be treated as missing at random, but the latter are a potential source of bias because they are excluded from the study.

A second potential limitation is the attrition of survey participants because of abandonment of the model. As noted above, this attrition affected the fidelity of the longitudinal sample. However, participating

schools that were lost in the second or third year of the study because they gave up the model during the study period are still included in the cross-sectional sample. Their presence in the cross-sectional sample allows us to better capture the full range of experiences of schools that have adopted each model. However, to the extent that model abandonment is a gradual process, responses from individual teachers or principals may reflect that partial abandonment had already occurred, potentially biasing the results toward lower implementation.

Third, the study is also limited to four specific models implemented in elementary schools in Texas and Florida, and experiences with schools adopting other models may differ as may the experiences of schools that have adopted this study's models in other states.

Cognizant of these limitations, we believe, nevertheless, that the analyses reported in the remainder of this report provide new insights and advance our understanding of how fully CSR models have been implemented, the implementation challenges encountered by schools, and the type of interventions that might address these challenges.

Finally, the reader should keep in mind that schools self-designated themselves as an AS, CK, DI, or SFA school, or a nonmodel school. Many of these schools may never have been, or are no longer, under contract with the organizations that developed and/or provide assistance for implementing their models.

Conformance to Model Design

The four CSR models are characterized by core components and specific support requirements central to the implementation of those components.

We used the methodology described in the preceding chapters to describe (1) the extent to which the schools using the four models received the implementation support prescribed by the model developers, and (2) the degree to which the schools and their teachers implemented the model components, including curriculum, instruction, student groupings, governance, assessments of students, and parent involvement practices.

This chapter first presents findings on the extent to which schools adhered to the implementation of the support requirements and, then, of the core components of their adopted models as prescribed by the model developers. The relationship between level of support provided for implementation and level of implementation of the models' core components is examined in Chapter Six.

Because of the extensive references made to implementation scores in this chapter, the reader is reminded that the value of each implementation indicator varies across a standardized scale of 0 for no implementation and 2 for full implementation (see Chapter Two, p. 32–33). When appropriate, the tables additionally report the percentage of schools that had fully implemented a specific prescribed practice, that is, achieved a score of 2 on the standardized scale.¹

¹ The values reported in the tables are derived from the imputed scores.

Support Provided for Model Implementation

Model developers typically recommend that implementation be supported in several ways. They usually recommend that principals and teachers receive a specified duration of initial training, and that the school provide adequate resources for books and other model-related materials. They require that school staff vote on the model before implementation begins to ascertain if there is an adequate level of commitment. They also prescribe a specified level of ongoing model-related staff development in subsequent years and prescribe the frequency with which a model developer's staff or other knowledgeable consultant ought to visit the schools to provide guidance to school administrators and teachers. Finally, they recommend that the schools allocate a specified amount of time to an internal facilitator, a school staff member responsible for coordinating implementation of the model. Although model developers do not explicitly require district support for adoption of their model, it is seen as desirable. Hence, we also included it in our investigation.

Level of Implementation Support with Age of Model Use

Generally, model developers recommend maintaining most of the support elements over the first three years of implementation. By then, schools are expected to have completed the necessary institutional, curriculum, instructional, and other changes required by the model, and the staff is expected to have fully integrated them into their day-to-day activities. Hence, expectations are that the level of support for implementation would decrease, if not drop altogether, in subsequent years.

Surprisingly, we found no statistically significant evidence that the level of support for implementation in the model schools changed with the length of time schools had been using the models.² Overall, CK, DI, and SFA schools in the fourth or beyond years of using the model (older implementers) were just as likely to receive the same level of support as their counterparts in the first three years of using the

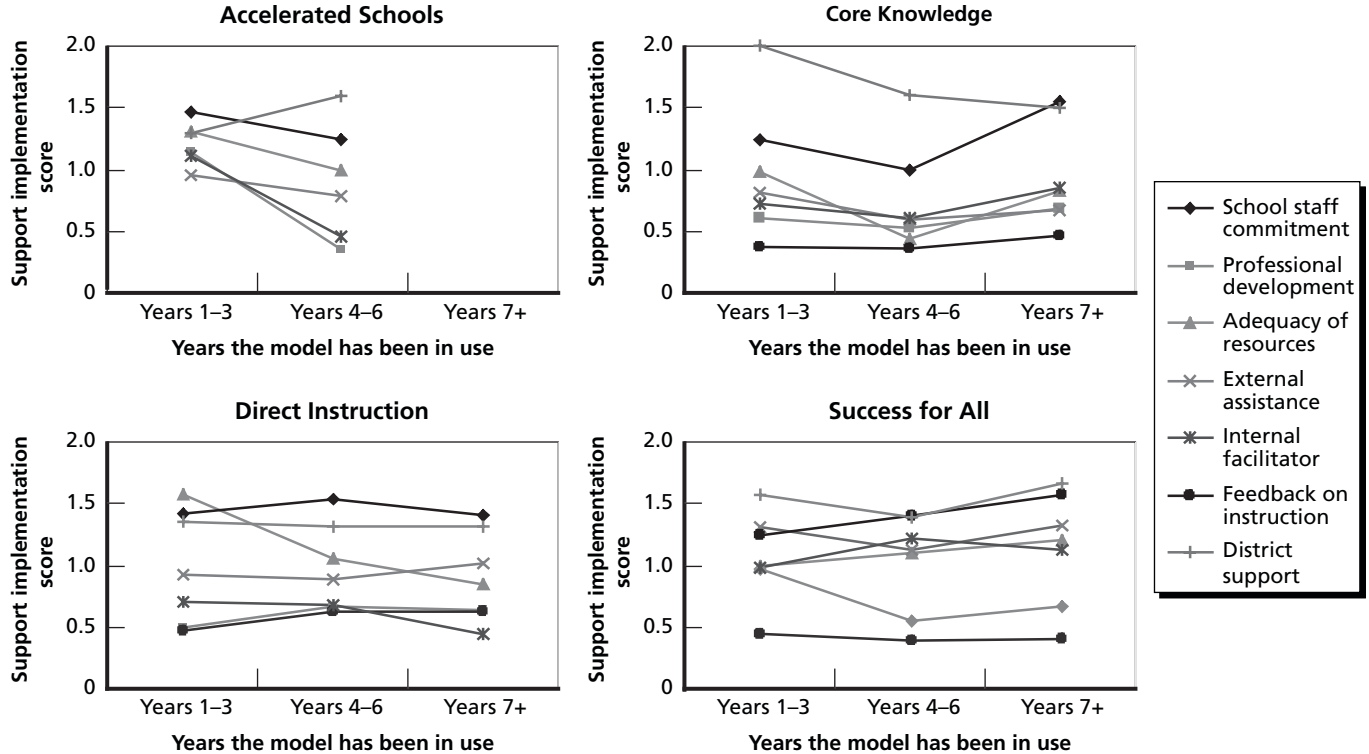
² See Appendix F for implementation scores by years the models have been in use.

model (Figure 4.1).³ Regardless of how long they had been using the model, the schools were generally just as likely to have an internal facilitator, to receive external assistance from the model developer or a consultant, to have staff committed to the model, and to receive ongoing professional development. There were a few exceptions, however. For SFA schools, the level of professional development received by principals and teachers was lower in “older” users (average 12 hours per year) than in more recent users (average 20 hours per year). For CK schools, staff commitment to the CK model increased with time. Principals in older implementers of CK were likely to “agree” that their teachers were committed to the model, while principals of recent implementers tended to “somewhat agree.” Teachers in our case studies reported that their enthusiasm had increased over time because CK “allowed for more creativity and made it easier to make connections between subjects.”

AS schools, unlike the other types of model schools, displayed a more consistent pattern of declining support over time. But even here, the differences were not statistically significant, with one exception. Principals and teachers in older AS schools received significantly fewer hours of staff development than those in recent AS schools (21 and 4 hours, respectively). No other changes in level of support were found to be significant.⁴ Because the level of support remains relatively stable over the years of model use, we describe the level of support for implementation received by schools and their staff in greater detail below without regard to years of model use.

³ Our cross-sectional sample of schools contains only schools that were actually using one of the four models included in the study at the time of survey. It excludes schools that might have adopted a model and then abandoned it. Hence, this chapter describes the type and level of support that schools still using the model are receiving. It does not describe how the level of support may be changing within a given school over time.

⁴ We found some variations with length of time a school has used a model with regard to the level of funding allocated by schools for model implementation. This is discussed in the next subsection.



RAND MG546-4.1

Figure 4.1
Implementation Support, by Years School Has Used the Model and by Type of CSR Model

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: See Appendix F for actual values of implementation scores. See Table 2.2 for applicable core components for each model.

Level of Support for Implementation

School Staff's Commitment. Overall, teachers reported a medium to low commitment to using the model adopted by their school. Asked whether they agreed or disagreed with the statement that “teachers are committed to using the model,” teachers in all types of model schools generally responded they neither agreed nor disagreed (Table 4.1).⁵ In none of the schools did all responding teachers agree that “teachers are committed to using the model.”

In all four types of model schools, principals rated the commitment of their teachers significantly higher than teachers rated their own commitment. Principals in 39 percent of CK schools to 57 percent of those in SFA schools agreed that “teachers are fully committed to using the model.” The discrepancy in perceptions of teachers' commitment was largest for SFA schools and lowest for CK schools. Similarly, teachers perceived the commitment of their principals to using the model to be higher than their own, again with the discrepancy highest in SFA schools and lowest in CK schools.

Clearly, principals were overestimating their staff's commitment to the model. A potential explanation for the lukewarm teacher commitment was provided in our case study interviews. Teachers reported that they were generally not involved in the selection of the model adopted by their schools. In nearly all cases, the principal alone made the decision and buy-in from teachers was sought only afterward, typically by having the model developers make a presentation to the teachers. Also, a small number of teachers were encouraged by their principals to visit schools that had adopted the same model and to attend the model developer's national conferences. Although teachers were given the opportunity to vote on whether to adopt the model, and a large majority did vote for adoptions (all four models), they did so not because of conviction that the model was appropriate for their school but because they felt that the school was going to go ahead regardless.

Initial Training Received. Teachers and principals reported receiving a shorter duration of initial training than is recommended by model

⁵ See Appendix G for complete implementation scores.

Table 4.1
School Staff's Commitment, by Type of CSR Model

	Accelerated Schools		Core Knowledge		Direct Instruction		Success for All	
	Percentage of Principals or Teachers Who Agree with the Statement	Mean Score	Percentage of Principals or Teachers Who Agree with the Statement	Mean Score	Percentage of Principals or Teachers Who Agree with the Statement	Mean Score	Percentage of Principals or Teachers Who Agree with the Statement	Mean Score
Principal agrees "most teachers are fully committed to using model" ^a	43	1.44	39	1.15	42	1.44	57	1.46
Principal agrees "most parents are supportive of model" ^a	50	1.66	46	1.38	43	1.60	59	1.61
Teachers agree "principal is committed to using model" ^a	4	1.40	10	1.31	6	1.43	15	1.54
Teachers agree "teachers are committed to using model" ^a	0	1.11	0	1.20	2	1.27	0	1.09

SOURCE: RAND-University of Washington principal and teacher surveys.

^a The standardized item scale is a three-point Likert scale with 0 indicated "disagree" and 2 indicating "agree."

developers.⁶ On average, teachers in SFA schools received two-thirds of the recommended hours of initial training, those in AS and DI schools received about half of their respective 42 and 24 recommended hours, and teachers in CK schools received approximately one-third of the 35 recommended hours (Table 4.2).⁷ Principals were more likely than their teachers to have received the recommended hours of initial training. On average, SFA principals received 80 percent of the training days recommended by the model, principals of DI and AS principals received more than 60 percent, and CK principals received 42 percent. Principals were from two to five times more likely than teachers to have been exposed to the full initial training recommended by the model developers, suggesting that schools either did not have the resources to pay for the full training (see “Resources allocated for implementation” below) or were unwilling to provide the time necessary for teachers to benefit from the full initial training.

A substantial number of teachers interviewed in our case studies indicated that the training they received did not fully prepare them to start using the model adopted by their school, even when they had received the full amount prescribed. Teachers noted that the DI training was “overwhelming” to them and the CK training required “changing one’s mind set.” Training related to AS and SFA was generally thought to be not only “overwhelming,” but also “insufficient” even when teachers received the full number of hours required. These difficulties were attributed to various factors, including trainers inadequately prepared to answer teachers’ questions, lack of time devoted to modeling instructional techniques, and limited opportunities to practice these techniques.

Professional Development Received. Just as schools’ staff were not typically exposed to the full amount of initial training on the model

⁶ During the first year of the survey, administration principals and teachers (in 148 schools) were asked to retrospectively estimate the number of hours they received in initial training. These questions were eliminated in subsequent surveys to minimize information redundancy.

⁷ As noted earlier, CK did not start offering training on its program until early 2000; hence, many of our sample schools did not receive any initial training other than possibly through the school.

Table 4.2
Initial Training Provided to Principals and Teachers, by Type of CSR Model

	Accelerated Schools			Core Knowledge			Direct Instruction			Success for All		
	Target Hours	Percentage of Schools Meeting Target	Mean Score	Target Hours	Percentage of Schools Meeting Target	Mean Score	Target Hours	Percentage of Schools Meeting Target	Mean Score	Target Hours	Percentage of Schools Meeting Target	Mean Score
Principal received model specified hours of training	63	21	1.23	35	23	0.88	24	44	1.35	35	57	1.65
Teacher received model specified hours of training	42	0	1.07	35	8	0.61	24	0	0.91	26	2	1.25

SOURCE: RAND-University of Washington principal and teacher surveys.

adopted by their school, they did not receive the prescribed amount of annual staff training and development. They reported receiving about one-quarter of the hours of professional development prescribed. Staff received the prescribed amount in only 3 or fewer percent of schools, depending on the model (Table 4.3). Teachers in SFA schools received about 12 hours of annual professional development related to the model, compared to 17 hours for AS teachers, 5 hours for CK teachers, and 10 hours for teachers in DI schools. Principals were more likely than teachers to receive yearly staff development.

Resources Allocated for Implementation. Model developers' estimates of the implementation resources needed for each of the first three years are about \$65,000 for AS; \$45,000 for CK; from \$75,000 to \$194,000 for DI; and from \$70,000 to \$270,000 for SFA. These resources are expended on items such as books and other model-related materials, consulting fees for the model developers, and additional school staff to help with model implementation. The amounts cited for AS and CK and the lower dollar range for DI and SFA cover only the costs of contracting for external assistance and assume that all other assistance costs are covered via reallocation of funds and staff reassignments within the schools.

Most schools in their first three years of implementation reported that they had allocated funds for model implementation, ranging from 80 percent of DI schools to 100 percent of SFA schools.⁸ In schools that allocated funds, the median amount allocated by AS and SFA schools was about equal to the minimum amount estimated by the model developers (Table 4.4). But among DI schools, only 2 of the 12 schools in their first three years of using the model had allocated the

⁸ There was a higher rate of missing responses on the principal survey item asking about the funds the school "used directly to implement their model" than for other survey items. Missing responses ranged from 21 percent of AS schools to 30 percent of DI schools. We did not seek to impute for these missing responses. Instead, as one of the few studies that sought information on schools' funding of CSR models, we chose to describe the information as reported to provide the reader with an indication of the variations in level and sources of funding used to finance implementation of CSR model. The reader should keep in mind that the number of responses on which the information provided is based is often small. Indeed, we do not report on funding by CK schools because of too few observations. CK schools that reported allocating funds allocated \$30,000 or less.

Table 4.3
Professional Development Provided to Principals and Teachers, by Type of CSR Model

	Accelerated Schools			Core Knowledge			Direct Instruction		
	Target Hours	Percentage of Schools Meeting Target	Mean Score	Target Hours	Percentage of Schools Meeting Target	Mean Score	Target Hours	Percentage of Schools Meeting Target	Mean Score
Principal received model specified hours of PD	42	24	0.98	16	15	0.66	40	11	0.65
Teacher received model specified hours of PD	42	0	0.83	20	3	0.56	40	1	0.50

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: SFA requires additional professional development after the first year, but did not specify the amount. However, actual hours were reported and could be compared with those for the other models.

Table 4.4
Resources Allocated for Implementation, by Type of CSR Model

Model	Funds Allocated by Schools (Median Dollars)	
	Year 1–3	Year 4 or More Years
Accelerated Schools	75,000	na
Direct Instruction	25,000	45,000
Success for All	65,000	23,500

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: na means not applicable.

minimum amount for external assistance. All other DI schools allocated an amount below that minimum. In subsequent years, although developers do not suggest that additional funds are needed to assist implementation, most DI schools (80 percent) and SFA schools (90 percent) reported continuing to allocate funds for implementation of their model. The median amount (\$45,000) allocated by DI schools in their fourth or later years of using the model was higher than the median amount (\$25,000) allocated by the more recent DI-implementing schools. Among the older DI schools, one-third reported having allocated in excess of \$150,000 in the survey year. By contrast, older SFA schools allocated a lower median amount for model implementation than more recent implementers. However, a similar one-third of these schools allocated in excess of \$100,000 for continuing implementation.

Sources of funding for implementation differed between AS, DI, and SFA schools. Federal CSRSD funding was the primary source of funding for AS schools, the majority of which were in their first three years of implementation. In contrast, Title I was the primary source of funding for DI and SFA schools (Table 4.5). Recent implementer DI schools were more likely to use Title I funding than older implementer schools. All DI schools complemented their funding with funds from a variety of other sources. For SFA schools, funding sources remained fairly constant over time. Those schools complemented their funding primarily with federal CSRSD funds and “other” funds. Principals in 50 percent of AS, DI, and SFA schools agreed that they had sufficient

Table 4.5
Percentage Distribution of Funds for Implementation, by Sources of Funding, Type of Model, and Years Since Model Was First Implemented

Source of Funding	Model Type and Years				
	Accelerated Schools	Direct Instruction		Success for All	
	Year 1–3	Year 1–3	Year 4 or more	Year 1–3	Year 4 or more
Federal CSRD funds	98	5	6	22	13
Title I funds		75	54	56	55
Private grants	2	6	7	0	
School-based organizations		6	19	0	1
Other		8	14	22	31
Total	100	100	100	100	100

SOURCE: Rand-University of Washington principal and teacher surveys.

funds to support the full implementation of their model. Only one-quarter of CK principals felt their funding was sufficient. There was no relationship between the amount of funding allocated by the school for implementation and principals' perceptions of adequacy of funding, with the exception of SFA schools. Principals in SFA schools with higher levels of funding were more likely to agree that their school's resources were sufficient.

External Assistance Received. As for many of the other support mechanisms discussed above, the level of external assistance fell short of the models' prescribed amount. Thirty to 40 percent of the AS, CK, and DI schools had an external consultant to assist with implementation of the model. By contrast, most (70 percent) of SFA schools were receiving external assistance. On average, the SFA schools' external consultants visited three days a year, one day short of the prescribed amount (mean score 1.41). On the other hand, AS, CK, and DI schools' external consultants visited their schools for far fewer days than prescribed. AS external consultants visited schools, on average, 6 days per year instead of the required 36 days (mean score .32). Similarly, CK and DI external consultants visited their schools, on average, 1 and 6 days per

year, instead of the 6 and 30 days prescribed by their respective models (Table 4.6). When visiting schools, external consultants met with their principal at the school or elsewhere, seven times a year, and CK, DI, and SFA external consultants met with their principal from two to five times a year. By contrast, teachers in CK, DI, and SFA schools rarely interacted with their schools' external consultant; most met once or twice a year. AS teachers, however, interacted with their consultants more frequently, on average two times a year, most likely because both consultants and teachers attended the working group meetings.

Although external assistance to the schools fell short of the level prescribed by model developers, principals of AS, DI, and SFA schools tended to agree with the statement that "model staff provided adequate support to the schools." Principals in CK schools were more nuanced in this regard, neither agreeing nor disagreeing with the statement (mean score 1.09). In our case study interviews, principals and teachers generally indicated that their consultants were responsive to their questions and that they were flexible in agreeing to make adjustments to the model in order to fit their school's needs.

Appointment of an Internal Facilitator. Model schools were more likely to have designated one or more school staff members to coordinate and facilitate implementation of the model than they were to have contracted for external assistance. Nearly all (84 percent) of SFA schools had designated an internal facilitator, compared to 62 percent of CK schools, 59 percent of DI schools, and 50 percent of AS schools (Table 4.7). In our SFA and DI case-study schools, the internal facilitator was typically a reading specialist consistent with the emphasis placed by these programs on reading. In the AS case-study schools, this role was divided among several teachers; in CK schools, the principal or vice-principal took on this function. For all models, the time allocated to the internal facilitator function again fell short of the amount prescribed by model developers. On average, AS, CK, and SFA schools allocated about half of the prescribed amount of .25, .33, and 1.0 full-time equivalency (FTE), respectively (mean scores of .88, 1.01, and 1.17, respectively), and DI schools allocated one-third of the prescribed amount of 1.0 FTE (mean score .67).

Table 4.6
External Assistance Received, by Type of CSR Schools

External Assistance	Accelerated Schools			Core Knowledge			Direct Instruction			Success for All		
	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score
CSR staff visited schools specified number of days ^a	36	3	0.32	6	5	0.27	30	10	0.43	4–6	41	1.41
Frequency principal met with external consultant ^b	25	6	0.54	5	7	0.60	15	39	0.73	10	6	0.62
Frequency teachers met with external consultant specific number of times ^b	20	6	0.51	1	5	0.67	2	12	0.73	2	6	0.83
Principal agrees “external consultant provided adequate support to the school” ^c	—	43	1.42	—	29	1.09	—	45	1.66	—	75	1.72

SOURCE: RAND-University of Washington principal and teacher surveys.

^a Target is number of days of visits specified per year.

^b Models do not specify a target for frequency of meetings with principals and teachers. Target is placed at 90th percentile of responses by schools within each model.

^c The standardized item scale is a three-point Likert scale with 0 indicating “disagree” and 2 indicating “agree.”

Table 4.7
Internal Facilitator Support, by Type of CSR Schools

Internal Facilitator	Accelerated Schools			Core Knowledge			Direct Instruction			Success for All		
	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score	Target	Percentage of Schools Meeting Target	Mean Score
Internal facilitator allocated specified amount of time for model coordination ^a	25	39	0.88	33	38	1.01	100	19	0.67	25	37	1.17
Frequency principal met with facilitator ^b	41	6	0.60	50	19	0.66	66	9	0.64	75	16	1.01
Frequency teachers met with facilitator ^b	11	6	1.18	8	10	0.84	7	13	0.90	8	9	0.99

SOURCE: RAND-University of Washington principal and teacher surveys.

^a Target is number of days of visits specified per year.

^b Models do not specify a target for frequency of meetings with principals and teachers. Target is placed at 90th percentile of responses by schools within each model.

Principals met frequently with their internal facilitators. On average, SFA principals met 38 times yearly with their internal facilitators, CK principals 17 times, DI principals 16 times, and AS principals 12 times. Teachers reported that they met with internal facilitators about 4 to 6 times yearly.

In our case-study sites, facilitators engaged in a variety of activities, depending on the model's primary focus. SFA internal facilitators assisted mainly in grouping students, tracking and reviewing assessments, identifying students in need of tutoring, observing classrooms and providing feedback to teachers, and presiding over component meetings. AS facilitators spent most of their time presiding over committee meetings and providing training. CK facilitators moderated and participated in grade-level teacher team meetings to ensure that the CK sequences were coordinated and aligned across grade levels.

In some of the case-study schools, teachers indicated that facilitators were not adequately prepared to answer school staff's questions about the model and what teachers were expected to do in the classroom. This is probably because of lack of sufficient training for facilitators. Our interviews suggest that at some schools, facilitators were provided with no more training than received by other teachers, and, as a result, they were unable to fulfill all of their responsibilities.

Feedback on Instruction. Three of the four models (CK, DI, and SFA) explicitly prescribe that teachers be provided with formal feedback or structured critiques of their teaching according to the model prescriptions. In practice, however, feedback was provided, although infrequently, by all four types of model schools (Table 4.8).

Overall, teachers in all four types of model schools reported receiving feedback on their teaching from their principals about once per marking period (mean score ranged from .87 to .92). They also received feedback from other school staff, including teachers and the internal facilitator, but less frequently (about once a year). They rarely, if ever, received feedback on their teaching from an external consultant or a district staff.

District Support. As noted in Chapter One, proactive district support is often deemed necessary for successful implementation of schoolwide reform programs. Among our model schools, perception

Table 4.8
Feedback on Teacher Instruction

Feedback on Instruction	Mean Implementation Score ^a			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Teachers received weekly formal feedback from:				
Principals ^b	0.92	0.87	0.92	0.88
School Staff ^b	0.44	0.47	0.59	0.58
Contractor ^b	0.18	0.05	0.21	0.22
District Staff ^b	0.36	0.23	0.35	0.29

SOURCE: RAND-University of Washington principal and teacher surveys.

^a Values in the table represent the mean implementation score of teachers across schools within each model.

^b Based on a standardized three-item Likert scale where 0 means “never”, 1 means “about once per marking period,” and 2 means “about weekly.”

of support differed broadly, depending on the model. Only 16 percent of principals in AS schools and 33 percent of principals in DI schools agreed with the statement that their district “gives the school all the support it needs to implement school-wide program.” By contrast, two-thirds of CK and SFA schools’ principals so agreed. It may be that superintendents prefer some types of models over others, or it may be that the districts in which our schools were located were not equipped to provide support for some models (e.g., AS relies mainly on processes, and DI is highly prescriptive). It may also be that some models encourage building relationships at the district level, while others do not.

Conformance to Model Design

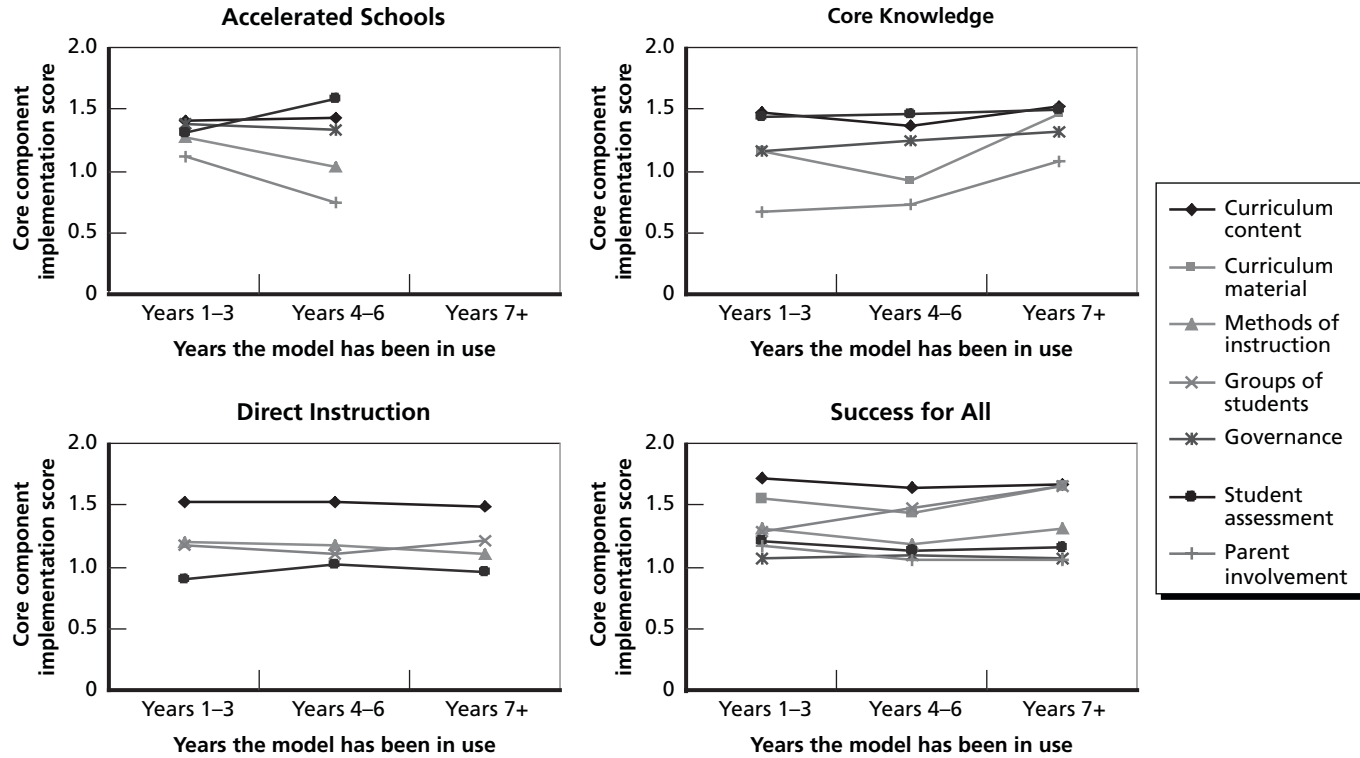
Model schools’ conformance with model design is assessed in this section for core components (curriculum, methods of instruction, grouping of students, governance, student assessments, and parental involvement) specific to each model. See Chapter Three for details on the model requirements for each of these core components and how they were measured. We first examine the relationship between levels of

implementation on these core components of each model and the length of time schools have been using the model, and then assess conformity to the model itself.

Levels of Implementation of Core Components with Age of Model Use

The study's four models have different expectations regarding how long it should take schools to achieve full implementation of all core components. Accelerated Schools recommends staggering implementation of its core components over a period of three years. The first year of implementation is devoted to identifying school needs and areas requiring improvement; the second year is used to plan corrective actions addressing the areas needing improvement identified in the first year, and the third year is used to implement these corrective actions. Hence, we would expect the level of implementation of this model and its core components to increase the longer a school has been using the model. The other three models, on the other hand, advocate full implementation in all grades in the first year. Nevertheless, we would expect the level of implementation of these models to be higher at least in the second and perhaps the third year as a result of increased familiarity with the model. Beyond three years of model implementation, we would expect the level of implementation to stabilize or even decrease if staff commitment begins to erode because of teachers' or principals' competing priorities, disenchantment with the model, or staff turnover.

Similar to the support requirement results, we found that our going-in expectations were only partly supported by the results (Figure 4.2). Levels of implementation for two of AS core components were indeed lower the longer the schools had been using the model. The implementation core for methods of instruction ("Powerful Learning") decreased from an average of 1.26 for schools in Years 1–3 to 1.03 for schools in Year 4 or beyond (the highest possible score is 2, for full implementation). This may reflect teacher turnover, or possibly, teachers found it difficult to maintain the use of the Powerful Learning framework over time because it requires daily preparation and collaboration among teachers and students in order to ensure authentic, inter-



RAND MG546-4.2

Figure 4.2
Implementation of Core Components, by Years School Has Used the Model and by Type of Model

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: See Appendix F for actual values of implementation scores. See Table 2.2 for applicable core components for each model.

active, collaborative, and learner-centered instruction. Parent involvement was also significantly higher in recent implementer schools than in older implementer schools (1.10 and .74, respectively). On average, 13 percent of parents whose children attended early implementer AS schools participated in school committees or working groups, compared to less than 2 percent whose children attended older implementer AS schools.

For CK, DI, and SFA, the level of implementation achieved for core components in the first three years of implementation was maintained in subsequent years in schools that continued to use the model. There were, however, a few exceptions for specific practices within components. Older implementer DI schools assigned students to reading groups once a year, while recent implementer schools did so about twice a year (.70 and 1.05, respectively). Teachers in older implementer DI schools were more likely than teachers in recent implementer schools to teach students in small groups “a majority” of the time (1.57 and 1.04, respectively). Also, teachers in DI schools implementing the model for more than four years “somewhat closely” followed a script for presenting the reading lessons, while teachers in recent implementer schools “did not follow it closely” (1.30 and .61, respectively).

Within SFA core components, schools implementing the model for more than six years were more likely than recent implementer schools to assign students to reading classes based on their current academic performance (1.96 versus 1.66) and to place students with similar reading levels in the same groups or classes (1.63 versus 1.38).

Assessment of Conformance to Models

Accelerated Schools.⁹ Most of Accelerated Schools in our sample had “medium-high” overall implementation levels (scores ranging between 1.20 and 1.59). AS schools and their staff, in general, adhered to the model’s prescribed practices in *governance*, *curriculum*, and *student assessments* at a higher level than in *methods of instruction* and *parent involvement* (Table 4.9).

⁹ Appendix G contains the actual average values for all indicators for all four models.

Table 4.9
Accelerated Schools: Mean Implementation Score and Percentage Distribution of Schools, by Level of Implementation and Core Components

Core Components	Mean Implementation Score	Percentage of Schools				
		High Implementation Score: 1.60–2.0	Medium-High Implementation Score: 1.20–1.59	Medium Implementation Score: 0.80–1.19	Medium-Low Implementation Score: 0.40–0.79	Low Implementation Score: 0–0.39
Curriculum	1.46	42	39	17	2	0
Methods of Instruction	1.19	0	44	50	6	0
Governance	1.36	3	89	8	0	0
Student Assessments	1.30	22	28	38	12	0
Parent Involvement	1.01	13	16	41	18	12

SOURCE: RAND-University of Washington principal and teacher surveys

The majority of AS schools put in place the prescribed *governance* structure. On average, the schools formed three to four working groups or cadres, including a “curriculum and instruction” working group, with at least 80 percent of teachers participating in at least one working group. Cadres typically met from one to three times a month, short of the weekly meetings prescribed by the AS model. Eighty-six percent of the AS schools “agreed” or “strongly agreed” on the “consensus decision-making process,” whereby decisions are first brought in front of the school’s steering committee and then to the school as a whole for final decisions. Stakeholders, including principals, teachers, and parents were typically represented on the school steering committee. The committee on average met monthly to make decisions and/or recommendations for the school, but short of the weekly meetings recommended by the model. Teachers generally agreed with the statement “all staff and administration have a strong sense of school purpose.” These teachers also rated their influence on developing goals, setting performance standards for students, adjusting the curriculum, and allocating the budget relatively high (1.47 on a scale from “no influence” [0] to a greater amount of “influence” [2]).

Teachers in AS schools tended to agree that the “AS curriculum is well aligned with state standardized tests” (average 1.56), and that “there is consistency in AS curriculum among teachers in the same grade” (average 1.64). Teachers neither agreed nor disagreed that the “AS materials are well coordinated across levels.”

Teachers also differed in the extent to which they made use of the *instructional* techniques prescribed by the AS model. Implementation scores varied from .70 (medium-low) to 1.58 (medium-high), with approximately 50 percent of schools scoring within the medium-high range (between .80 and 1.19).

On average, teachers used the Powerful Learning framework to inform lesson plans in all academic areas to a “moderate extent” (average 1.24). Powerful Learning is a form of instruction described as “authentic, interactive, collaborative, learner-centered, inclusive and continuous.” Principal and teacher case-study interviews indicated that Powerful Learning was difficult to implement and was introduced gradually in some schools. Even after being provided with training,

teachers found it difficult to transition from a traditional teacher-centered pedagogy to a progressive student-centered approach. One of the schools visited reported ongoing training to make this transition smoother and had even set up a mentor program to train new teachers in using Powerful Learning. The instructional time that teachers devoted to the instructional techniques of Powerful Learning varied with types of techniques. Teachers were more likely to devote their instructional time to encouraging their students to use higher-order thinking skills (on average teachers used this method between 51 to 75 percent of their instructional time). To a lesser extent, teachers devoted their instructional time to the use of hands-on activities, real-situation activities, and activities that connect students to their unique backgrounds. The method least used by teachers was encouraging their students to engage in individual explorations. In addition, teachers reported using the “Inquiry Process”—an inquiry-based learning process in which students play a major role in asking and answering questions—to make key decisions about student learning from a “small” to a “moderate” extent.

With regard to student assessment, schools typically reported assessing their students in reading about once per marking period, short of the multiple times per marking period that is prescribed by the model.

In more than half of the schools (56 percent), principals reported that parents “always” participated in steering committees. In about 28 percent of schools, parents participated “rarely” to “sometimes”; in 16 percent of the schools, parents typically did not participate at all. (The majority of the schools, however, reported that less than 13 percent of their parents attended school committees or special events.)

Core Knowledge. Most of CK schools had medium-high to high implementation scores of core components (scores ranging from 1.29 to 2.0). Core Knowledge and their staff demonstrated the model’s prescribed practices in *curriculum* and *student assessments* at a higher level than *governance* and *parent involvement* (Table 4.10).

All Core Knowledge schools implemented their reading curriculum, with the majority of the schools (70 percent) implementing the reading curriculum in all grades. In our case-study CK schools, the

Table 4.10
Core Knowledge: Mean Implementation Score and Percentage Distribution of Schools, by Level of Implementation and Core Components

Core Components	Mean Implementation Score	Percentage of Schools				
		High Implementation Score: 1.60–2.0	Medium-High Implementation Score: 1.20–1.59	Medium Implementation Score: 0.80–1.19	Medium-Low Implementation Score: 0.40–0.79	Low Implementation Score: 0–0.39
Curriculum	1.43	31	52	12	5	0
Curriculum Material	1.18	27	0	64	0	9
Governance	1.26	12	57	29	2	0
Student Assessments	1.47	37	34	18	8	3
Parental Involvement	0.84	10	15	26	23	26

SOURCE: RAND-University of Washington principal and teacher surveys.

principal proactively held teachers accountable for implementing the program by regularly observing classrooms and requiring teachers to submit weekly reports on their progress.

The implementation of other academic subjects, however, was less consistent, with about 48 percent of the schools having implemented the history and geography curriculum in all grades, 50 percent in at least one grade (but not all grades), and the remaining schools having not done so in any grade. Teachers tended to agree that “the curriculum is well coordinated across all levels” (average 1.45). According to principals and teachers in our case-study schools, the grade-level teams at their schools met twice or three times a year during the early implementation phase to examine the CK curriculum and to coordinate with one another to assure vertical integration and program continuity across kindergarten through sixth grade.

Teachers also tended to agree that “the reading curriculum was well aligned with state standards” (average 1.40), even though our site visits highlighted some challenges teachers faced in aligning CK curriculum subject matter with the state standards. For example, the CK history curriculum did not address in depth some topics specified by the state standards. The CK social studies curriculum, on the other hand, required covering more units than those specified by the state standards. Some of the teachers interviewed indicated that they were able to make adjustments to the CK curriculum by the second year to accomplish its alignment with the state standards.

All teachers in 43 percent of the schools reported they either keep up with the yearlong plan or move faster. In the remaining schools, teachers varied in the extent to which they keep up with the yearlong plan. There were no schools where all teachers within a school reported not keeping up with the yearlong plan.

Typically, teachers were not provided with all of the key resources and materials that Core Knowledge deems essential. CK requires four reference guides: “Core Knowledge Sequence,” “K–8 Guide,” “What Your *X* Graders Need to Know,” and “Dictionary of Cultural Literacy.” Teachers may have received a copy of one to three guides, but usually not all four. Similarly, teachers were not given the weekly 90 minutes

of structured planning time to prepare lessons as prescribed by CK. On average, schools provided their teachers with less than half of the time (40 minutes on average per week) stipulated for planning.

In about half of schools, teachers reported meeting one to three times a month; and in about 43 percent of schools, they met multiple times a marking period.

On average, schools reported that 13 percent of parents volunteered and participated in education workshops and that 8 percent of parents participated in the school's working groups.

Direct Instruction. Most DI schools had “medium” to “medium-high” implementation scores on the model's core components. DI schools and their staff demonstrated a higher conformance with the *curriculum* than with *methods of instruction*, *grouping of students*, and *student assessments* (Table 4.11).

DI schools conformed most to the model's curriculum requirements, with 60 percent of the schools scoring between 1.6 and 2.0. Most DI schools (84 percent) taught the prescribed minimum 60 minutes of reading per day. Teachers tended to agree that there was consistency in curriculum and instruction in the same grade (average 1.61), but they were less likely to agree that the curriculum and instruction materials were well coordinated across levels (average score 1.32). In site visits, teachers indicated that the program “does not adequately address reading comprehension across elementary upper grades.” Consequently, some schools had to adapt the program to enforce DI's reading approach across all grades.

Teachers also tended to keep up with or move faster than the pacing guide required (average score 1.60).

Teachers reported having difficulties implementing DI's prescribed instructional practices, which require adherence to an explicit word-for-word script for reading lessons. Only 13 percent of the schools had a “high” implementation level (average scores ranging from 1.60 to 2.00). Teachers in most schools (75 percent) reported that they “some-what” followed closely the DI script. Teachers in the remaining schools either reported “usually” or “always” following the script closely (13 percent) or reported not using/following the script at all (13 percent).

Table 4.11**Direct Instruction: Mean Implementation Score and Percentage Distribution of Schools, by Level of Implementation and Core Components**

Core Components	Mean Implementation Score	Percentage of Schools				
		High Implementation Score: 1.60–2.0	Medium-High Implementation Score: 1.20–1.59	Medium Implementation Score: 0.80–1.19	Medium-Low Implementation Score: 0.40–0.79	Low Implementation Score: 0–0.39
Curriculum	1.53	43	48	9		
Methods of Instruction	1.19	4	43	45	7	1
Grouping of Students	1.11	7	40	36	14	3
Student Assessments	0.90	1	14	46	37	2

SOURCE: RAND-University of Washington principal and teacher surveys.

Teachers in case-study schools reported diverging from the script in order to place more emphasis on comprehension and to make the program “more interesting.”

Similarly, there was variation in the extent to which teachers provided supplemental tutoring to their students in reading. Almost all schools (96 percent) reported that tutoring services were provided to their students. However, the amount of tutoring varied. On average, students received tutoring once a week. About 24 percent of students in CK schools received some form of tutoring.

Students in DI schools were not consistently grouped according to the model specifications. Students typically were grouped in classes by academic performance (average 1.49) and in small groups of no more than 9 students for reading (average 1.72). But student tests were not used every 9 to 11 weeks to assign and reassign students to reading groups and classes (average .85 and .73, respectively). Moreover, teachers tended to teach their students reading in a classroom setting more often than in a small group setting. The prescribed placement of the lowest reading skill students in smaller reading groups or classes was also not well adhered to by teachers (average .82). In nearly one-quarter of the schools, these students were generally not placed in smaller groups. In more than half of the schools (58 percent), placement in smaller groups was practiced only in some classes. Only 16 percent of the schools reported adhering to the model requirement of placing students with the lowest reading levels into smaller groups.

Regarding student assessments, about one-quarter (20 percent) of the schools reported assessing student reading levels multiple times per marking period, as required by the model, while the remaining schools did so less often. Teachers reported reviewing student scores in reading with principals more frequently (average 1.02) than with school facilitators (average .83) and external consultants (average .36), although the frequency fell short of what the model requires (i.e., reviewing results after all assessments).

Success for All. Most of SFA schools had “medium-high” to “high” implementation scores for *curriculum content* and *grouping of students* and “medium” to “medium-high” for *methods of instruction*, *student assessments*, and *parent involvement* (Table 4.12).

Table 4.12**Success for All: Mean Implementation Scores and Percentage Distribution of Schools, by Level of Implementation and Core Components**

Core Components	Mean Implementation Score	Percentage of Schools				
		High Implementation Score: 1.60–2.0	Medium-High Implementation Score: 1.20–1.59	Medium Implementation Score: 0.80–1.19	Medium-Low Implementation Score: 0.40–0.79	Low Implementation Score: 0–0.39
Curriculum	1.65	67	29	4	0	0
Curriculum Material	1.51	53	26	13	5	3
Methods of Instruction	1.23	3	51	43	3	0
Grouping of Students	1.41	41	43	11	5	0
Governance	1.07	3	28	55	14	
Student Assessments	1.14	4	41	42	13	0
Parental Involvement	1.07	4	27	55	14	0

SOURCE: RAND-University of Washington principal and teacher surveys.

Approximately 90 percent of SFA schools used SFA reading in all grades and 70 percent of schools taught reading for at least 1.5 hours per day as prescribed. Although most schools used SFA materials, teachers in case-study schools found that the materials did not fully address their state standards, while others found their use to be challenging because they required a substantial amount of preparation. To prepare for lessons, teachers had to create flash cards, word maps, and other visuals to be used for each lesson. However, teachers indicated that the amount of preparation lessened in subsequent years, as they were able to reuse their materials.

Similarly, a high percentage of SFA schools (81 percent) used SFA reading program materials for children who spoke mostly Spanish, and 53 percent of the schools used SFA materials for most or all special education classes. On average, teachers used “Getting Along” strategies in their classroom instruction once a week instead of every school day as prescribed by the model. Teachers in 34 percent of SFA schools reported that they “usually keep up with or move faster than the pacing guide requires,” while teachers within the remaining schools varied in their responses. Some schools indicated that over time SFA became less strict about pacing, recommending that teachers skip some components of lessons and activities, especially with students whose abilities exceeded the level of the lessons. As a result, some teachers adjusted the program to fit their needs and the needs of their students.

Implementation on *methods of instruction* varied broadly across schools. Sixty-six percent of the schools reported having two-thirds of their nonregular classroom reading teachers certified, as required by the model. Teachers in most schools reported that their students work collaboratively in groups or pairs during reading instruction every school day (average 1.68).

SFA schools, on average, provided tutoring to 20 percent of their first graders, instead of the 30 percent prescribed by the model. None of the schools provided tutoring exclusively on a one-on-one basis as SFA prescribed, but 71 percent of schools used a combination of one-on-one and group tutoring. Approximately 29 percent of schools did not provide any one-on-one tutoring. On average, 20 percent of all students in SFA schools received tutoring.

Teachers assigned 20 minutes of reading homework every day (as prescribed by the model) in 28 percent of the schools, while teachers in the remaining schools assigned homework between 3 to 4 days a week. The frequency with which teachers rewarded student teams also varied across schools. On average, teachers rewarded teams once a week, short of the once-a-day requirement prescribed by the model.

The student grouping component of SFA was implemented at a “medium-high” level. About 14 percent of SFA schools had reading classes of 20 students or less as prescribed, while the others had average classes ranging from 21 to 25 students. Seventy-five percent of the schools assigned students to classes on the basis of current academic performance. Students in these schools were reassigned to classes based on the test results required, on average of twice a year. Teachers, on average, taught at an instructional level that is the same as (not higher than) the reading level of most students in the class (average 1.16).

On average, teachers reported meeting with other teachers biweekly to discuss instructional practices, and bimonthly to review or develop student assessments, instead of weekly as required by the model (1.43 and 1.15 respectively). Teachers’ participation in other component groups was even less frequent. They participated less than once a month in working groups addressing budget, curriculum, parental involvement, discipline, and school safety (average .62)

Schools reported that parents tended to “always” participate on the school steering committee as required by the model (average 1.58). The parent-working group, however, did not meet weekly as prescribed, but rather monthly (average .91). Just as for the other three models, parental involvement in school activities and committees was implemented at a “medium-low” to “medium” level. But approximately 63 percent of the parents signed their children’s reading homework as required by model (average 1.69).

Discussion

We found that the level of implementation of the study models’ core components and support requirements was generally stable regardless

of the number of years the models had been in use. There was little or no improvement in schools' conformance to model design the longer schools had been using the model. However, the continuing availability of the support mechanisms beyond the first three years recommended by the model developers is notable. It suggests that continuing use of a comprehensive school reform model by schools requires continuing maintenance of critical support mechanisms, including ongoing professional development, maintenance of an internal facilitator, and continuing staff commitment.

There were a few exceptions, however, where we found the level of implementation of specific support requirements and prescribed activities to be significantly higher in recent implementer model schools than older model schools. Recent implementer AS and SFA schools provided their principals and teachers with more professional development hours than older implementer schools. Recent implementer AS schools were also more likely to implement the *methods of instruction* core component as prescribed by the model than schools that were in their fourth and subsequent years of implementation. Similarly, DI schools in their initial three years of implementation were more likely than older implementer schools to group their students based on their test results on a regular basis. In both the latter instances, schools may have found difficulty maintaining the practices.

We also found older implementer DI and SFA schools to have statistically significant higher implementation levels than recent implementer schools for a very small number of prescribed activities related to *methods of instruction* and *student grouping*. DI schools in their fourth and subsequent years of implementation were more likely than recent implementers to closely follow a script for presenting the reading lessons. Older implementer SFA schools were more likely than recent implementer schools to assign students to reading classes based on their current academic performance. It may be that teachers of older SFA schools have had longer experience with the model and therefore more time to learn and practice the implementation of such practices.

Overall, the level of support provided to schools to implement their respective models fell short, often by a large amount, of the level recommended by model developers. Teachers' commitment to the model adopted by their schools was, on average, lukewarm. Principals overestimated their teachers' commitment to the model (which, in gen-

eral, had been selected by the principal, not the teachers). Although the prime implementers of the models' classroom-related practices, teachers received from one-third to two-thirds of the hours of training recommended by the models, typically fewer hours than their principals. This issue is compounded by reports from teachers in case studies that the training received was not sufficient to prepare them to apply the model's practices in their classrooms, even when they received the prescribed number of training hours.

Similarly, the amount of resources allocated, the availability of an external consultant and the frequency with which they visited the schools, as well as the time allocated to an internal facilitator all fell short of the recommended amounts by the model developers, although there were variations across models.

Few schools (0 percent for AS, DI, and SFA, and 12 percent for CK) in our study implemented their adopted model fully as recommended by the model developers. Irrespective of the model type, our study schools were at a "medium" to "medium-high" conformance with the practices recommended by the model developers. Direct Instruction's implementation level was slightly lower than AS, CK, and SFA models (Table 4.13).

Schools' conformance to their respective model's practices varied across core components more than they varied across models, even though the practices recommended within core components differed. Overall, all schools for which *curriculum* was central to their adopted model (CK, DI, and SFA) implemented it at the same medium-high level, higher than any other core component. Teachers reported that they followed and kept up with or moved faster than the script or year-long plan, and that the model was relatively well aligned with state standards and well coordinated within grades (although less well coordinated across grades).

Although a specific curriculum was central to CK, DI, and SFA, an elaborate form of governance was central to AS. Schools implementing this central governance component also did so at a medium-high level, putting in place the governing mechanisms and involving all stakeholders in the process.

By contrast, teachers in all types of our sample of model schools had greater difficulties in implementing the methods of instruction in conformance with their respective model prescriptions. In AS schools,

Table 4.13
Mean Implementation Scores, by Core Component and by CSR Model Type

Core Components	Model Type			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Curriculum	1.46 ^a	1.43	1.53	1.65
Curriculum Material	na	1.18	na	1.51
Methods of Instruction	1.19	na	1.19	1.23
Grouping of Students	na	na	1.11	1.41
Governance	1.36	1.26	na	1.07
Student Assessments	1.30	1.47	0.90	1.14
Parental Involvement	1.01	0.84	na	1.07

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: na means not applicable.

^a The implementation scores correspond to the following levels: Low = 0.0–0.39, Medium-Low = 0.4–0.79, Medium = 0.80–1.19, Medium-high = 1.20–1.59, High = 1.60–2.00

teachers found it difficult to shift from a traditional teacher-centered to a student-centered mode of instruction that emphasized development of higher-order thinking skills, used hands-on activities and activities connecting students with their unique backgrounds, and engaged students in individual exploration. DI teachers, in turn, followed the lessons' word-for-word script only in part, finding it necessary to place more emphasis on reading comprehension and to make the program "more interesting." And for SFA, providing the recommended level of one-on-one tutoring proved to be difficult.

Of all model core components, conformance to the model's prescriptions for parental involvement was the lowest. Although schools put in place the required mechanisms for parental involvement in school affairs, parent participation was low, with one exception. When parents were required to sign off on their children's homework, most of them did so.

Variations in level of implementation of the various models' core components were typically greater across schools within a model than across model types. Variations across schools within a model were least for core components to the models as noted above and largest for student assessments, groupings of students, and parental involvement.

Practices of Model and Nonmodel Schools

There are several reasons why all schools, both model and nonmodel, may engage in similar educational practices. First, CSR models are often based on empirical research and some of their specifications may overlap, reflecting a consensus on “best practices” that may be familiar to, and used by, all types of schools. Second, CSR models, as noted earlier, are not comprehensive. In a given model, some core components are more important than others, and, within a core component, a particular set of practices may be more important than others. For instance, CK has no requirements for school governance, while DI and SFA have some. In contrast, governance is central to the AS model. However, all schools, both model and nonmodel, have to adopt some form of governance. Another example is the common practice of grouping students. DI and SFA specify grouping students in classes by academic level, while AS and CK do not have such a requirement. Still, many schools, whether model or nonmodel, may group students because they may deem it good practice.

Knowing whether implementation of different CSR models *actually* results in different practices at the school level is of interest for several reasons. From a school’s viewpoint, the more similar the actual practices of schools using different models, the less important the choice of a specific model. If models are similar, what matters most may be the adoption of a CSR model rather than the choice of a particular model. From a model developer’s viewpoint, the extent to which the specified practices of the model are “eroded” and become undifferentiated from those of other models may signify that more emphasis needs to be placed on the model’s core practices that are deemed most

critical. From an analytical point of view, the fewer the differences in actual practices in schools using different models, the more appropriate it becomes to pool data across models to analyze model effects on student achievement and other relevant student outcomes. Finally, from an effectiveness point of view, if there are no major differences in practices between model and nonmodel schools, there is no reason to expect a differential effect on student achievement.

Below, we examine how practices differ across schools using one of the four models, doing so component by component. We then compare the practices of model schools with those of their matched non-model comparison schools focusing on differences in practices between these two types of schools. But first, a methodological note.

Methodological Note

As noted in Chapter Three, the data collected from schools from all four CSR models and their matched nonmodel comparison schools were the same regardless of which model prescribed the use of which practices. Hence, implementation scores for each category of school could be computed for the same sets of practices for each core component and their constituent indicators. There are only a few exceptions for practices specific to a model type, such as whether SFA teachers used “Getting Along” strategies in their classroom and whether AS teachers used the “Inquiry Process” to make decisions about student learning. See Table 2.3 for a complete list of implementation indicators that were measured in all study schools.

For all the tables in this chapter, the highest possible score in all dimensions is 2 (signifying full compliance).¹

¹ Paired t-test statistical procedures were used to determine whether differences in practices between model schools and nonmodel schools were significant.

Practices of Schools Using Different Models

In this section, the practices of the study’s model schools are compared for each model core component: curriculum, methods of instruction, grouping of students, governance, assessments of students, and parental involvement. Within each of these core components, all practices specified by one or more of our four models are compared.²

Curriculum

Most curriculum measures were practiced at the same level across the four types of model schools. Model schools taught reading an average of 1.5 hours per day, regardless of model type. On the average, teachers in all four types of model schools rated their reading curriculum as being “somewhat” to “well” aligned with state standards. They “agreed” that their curriculum was consistent within grade, and, to a lesser extent, “agreed” that their curriculum was well coordinated across grades, whether or not the models specified these practices (Table 5.1). Similarly, teachers in all four types of model schools were just as likely to “usually keep up” with their respective yearlong plan, and to consult it “about weekly.”

The only exceptions were teachers in CK schools, who were more likely than teachers in the other three model schools to report using their yearlong plan to minimize curriculum overlaps across grades. This may be because teachers in CK schools were 20 percent or more likely to have contributed to the development of their yearlong plan than teachers in the other three model schools.

² For the purpose of this assessment, implementation scores for each of the models were computed relative to the same value of “full implementation,” so that they could be compared (see Appendix H). Typically, we chose the value least restrictive when two or more models varied in their full implementation prescriptions of the same practice. As a result, some of the scores in this section may not equal “model conformance” scores discussed in Chapter Four and shown in Appendix G.

Table 5.1
Mean Curriculum Implementation Scores, by Type of CSR Model

Curriculum Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Reading taught at least 1.5 hours daily	1.87	1.82	1.88	1.93
Curriculum is well aligned with state standards	1.56	1.40	1.45	1.49
Curriculum is consistent within grades	1.64	1.64	1.61	1.67
Curriculum is well coordinated across grades	1.19	1.45	1.32	1.36
Yearlong plan/pacing guide is used to minimize curriculum overlaps across grades	1.21	1.46^a	0.92	1.06
Teachers:				
Contributed to development of yearlong plan	0.90	1.06^a	0.76	0.62
Consult yearlong plan daily	1.12	1.22	1.15	1.18
Usually keep up with the pace of the yearlong plan	1.59	1.71	1.60	1.64

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by that CSR model.

^a Indicates difference with DI and SFA is significant at 5 percent level.

Methods of Instruction

Schools were likely to pick and choose among instructional practices, even among practices specified by their model. Some of the differences between types of model schools were large (Table 5.2).

Powerful Learning, a form of instruction prescribed by AS that emphasizes hands-on activities, higher-order thinking, individual exploration, and activities based on real-life situations and connected to students' unique backgrounds, was practiced with the same frequency by teachers in all four types of model schools. There were, however, differences between types of model schools with respect to the extent to which teachers had their students "work collaboratively in groups or pairs every school day." This practice was used more frequently, as

Table 5.2
Mean Methods of Instruction Implementation Scores, by Type of CSR Model

Instructional Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
At least 75 % of teachers are certified	1.43	1.12	1.45	1.49
Students work collaboratively in groups or pairs every school day	1.28	1.21	1.06	1.68^a
Teachers devote in their classrooms:				
76–100% time to hands-on activities	1.14	1.04	1.02	1.10
76–100% time to higher-order thinking	1.31	1.18	1.27	1.30
76–100% time to individual exploration	0.90	0.84	0.88	0.92
76–100% time to activities based on real-life situations	1.13	1.04	1.06	1.12
76–100% time to activities that connect to students' unique backgrounds	1.07	0.93	0.96	1.03
76–100% time to thematic instruction	0.97	0.96	0.92	0.92
Teachers:				
believe students are capable of achieving high standards	1.53	1.27	1.36	1.37
emphasize immediate correction of student academic errors	1.59	1.64	1.61	1.60
follow an explicit word-for-word script closely	0.23	0.40	0.95^c	0.85^c
assign students 20 minutes or more reading homework daily	1.47	1.33	1.34	1.72^a
teach at instructional level that is higher than level of most students	1.23	1.15	1.19	1.20
Tutoring:				
students receive supplemental tutoring in reading	1.72 ^b	1.42	1.47	1.30
students receive tutoring every school day	1.29 ^b	1.01	1.08	0.93

Table 5.2—Continued

Instructional Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
students receive one-on-one tutoring	0.46	0.40	0.37	0.54
53% of students receive tutoring in reading	1.07 ^a	0.65	0.90	0.72

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by CSR model.

^a Indicates difference with other three models is significant at 5% level.

^b Indicates difference with SFA model is significant at 5% level.

^c Indicates differences between these two models and AS and CK respectively are significant at 5% level.

prescribed, by teachers in SFA and AS schools than by teachers in DI schools. Teachers in SFA schools, in particular, used collaborative work on average two more days a week than the teachers in other model schools. Teachers in AS and CK schools used this mode of instruction with about the same frequency.

Teachers in DI and SFA schools were more likely to *follow a script closely* as these models prescribe than teachers in AS and CK schools. DI and SFA teachers followed a script “somewhat closely,” while the other teachers “did not follow a script very closely.” The DI model specifically emphasizes *correcting immediately students’ academic errors*. However, this practice appears to be universally adhered to by most teachers, regardless of the type of model used.

Teachers in SFA schools, as prescribed, were more likely to give students *20 minutes of reading homework* than teachers in the other three types of model schools. On the average, they did so about two more days a week. However, although the SFA model prescribes teaching at an instructional level higher than the level of most students, teachers in SFA schools were no more likely than other teachers to do so. Teachers in all schools reported teaching at “about the same level as the independent reading level of most of their students.”

Finally, although both DI and SFA encourage the use of *supplemental tutoring* in their schools, with SFA further prescribing one-on-

one tutoring, neither type of school provided supplemental tutoring at a higher rate than CK and AS schools, for which these practices are not prescribed. Instead, AS schools were more likely to provide tutoring services to students and to provide tutoring in reading. The percentage of students receiving tutoring in AS schools averaged 28 percent, compared to 23 percent in DI schools, and about 17 percent in CK and SFA schools. As we shall see in the next section, a potential explanation for this difference is that schools that use a prescriptive model, such as CK, DI, and SFA, may have less need to provide supplemental help to their students.

Notably, CK schools (for which no mode of instruction is specified) were, in most instances, just as likely to use the same instructional practices as the other types of model schools.

Grouping of Students

The DI and SFA models both prescribe that all students in a reading class or groups be at about the same reading level. SFA schools complied with this prescription more consistently than DI schools. Similarly, SFA schools (but not DI schools) were more likely to regularly reassign students to classes based on standardized tests (Table 5.3). On average, SFA schools reassigned students “every 9 to 12 weeks,” while schools using the other three models did so a “couple of times a year.”

Although DI schools were no more likely to group students by performance than AS and CK schools, their teachers were more likely to teach reading in small groups most of the time, as the model prescribes. Teachers in SFA schools were much less likely to teach students in small groups, as expected, given the emphasis placed by SFA on teaching reading at the classroom level.

Governance

Along with the use of Powerful Learning for instruction, a participatory and consensus-driven form of governance is the main component of the AS model. The other three models do not have an equivalent set of governance-related requirements other than prescribing that teachers meet regularly to discuss instruction (CK and SFA) or to discuss

Table 5.3
Mean Grouping of Students Implementation Scores, by Type of CSR Model

Student Grouping Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Students are assigned to reading classes based upon current level of achievement	1.38	1.45	1.50	1.71
Students in teacher's reading class are at about the same reading level	1.09	1.05	1.25	1.43^a
Students are reassigned to reading classes every 9–12 weeks based on a criterion or standardized test	0.68	0.79	0.73	1.49^b
Students are reassigned to reading groups every 9–12 weeks based on a criterion or standardized test	1.13 ^b	0.79	0.85	0.74
Students with lowest skills are placed in smaller reading groups than other students	1.14	0.86	0.82	0.58^c
Teachers teach reading in small groups of students most of the time	1.06 ^d	0.60 ^d	0.94^d	0.29^d

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by CSR model.

^a Indicates differences with AS and CK are significant at 5% level.

^b Indicates differences with three other models are significant at 5% level.

^c Indicates differences with AS and three other models are significant at 5% level.

^d Indicates differences with each paired model is significant at 5% level.

student assessments (SFA), and that teachers participate regularly in a parental involvement group (SFA).

Generally, AS schools were not more likely than the other three types of model schools to engage in the participatory governance-related activities prescribed by the model (Table 5.4). Teachers at all four types of schools reported that they were just as likely to have a strong sense of their school's purpose. Similarly, all schools were just as likely to have a school steering committee that met with the same frequency (about monthly). At all four types of model schools, stakeholders (other than school staff) participated in these meetings "rarely to sometimes."

Principals at all four types of model schools reported having a high level of influence over their school's affairs (score of 1.5 on a stan-

Table 5.4
Mean Governance Implementation Scores, by Type of CSR Model

Governance Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
All school staff have a strong sense of school's purpose	1.73	1.81	1.73	1.74
Principal relies on a consensus decisionmaking process	1.93	1.90	1.84	1.89
School has complete control over setting goals, performance standards, adjusting curriculum, and allocating budget	1.48	1.52	1.49	1.56
Teachers have a great deal of influence setting goals for school, adjusting curriculum, and allocating budget	1.34 ^a	1.24	1.23	1.16
Teachers agree their skills and expertise are utilized to address schoolwide issues	1.66	1.59	1.55	1.50
School's steering committee meets about weekly	1.47	1.38	1.39	1.36
All stakeholders always participate in school's steering committee	1.10	1.18	1.13	1.12
School has 5 or more working groups	1.54	1.44	1.42	1.43
Principal participates weekly in the curriculum and instruction group	1.36	1.20	1.34	1.34
Teachers participate in following working groups about weekly:				
- Curriculum and instruction	0.97	0.86	0.84	0.82
- Parental involvement	0.57	0.61	0.58	0.61
- Budgetary issues	0.28	0.24	0.28	0.29
- Discipline and school safety	0.58	0.62	0.61	0.63
- All the above	0.62	0.58	0.57	0.58
Teachers formally meet with each other weekly to do the following:				
- Review student assessments	1.35 ^a	1.16	1.21	1.15
- Discuss instructional strategies	1.54	1.44	1.41	1.43
- Discuss school needs, goals, assessments, instruction, and curriculum	1.24 ^b	1.08	1.07	1.06

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by CSR model.

^a Indicates difference with SFA is significant at 5% level.

^b Indicates differences with three other models are significant at 5% level.

standardized scale of 0 to 2, in which 0 means “no control” and 2 means “complete control”) and relying on a consensus decisionmaking process. And these schools were also equally likely to have an average of four working groups active within the schools to address various key areas, including curriculum and instruction, discipline and safety, and parental involvement.

Teachers, in turn, reported attending these working groups at the same frequency regardless of the subject matter of the group. Although SFA requires teachers to participate in a working group focusing on parental involvement, teachers in schools using this model attended these meetings with the same frequency as teachers in other model schools.

Governance practices for teachers in AS schools differed from those in the other three model schools in a few areas, although the differences were not large. AS teachers were somewhat more likely to report having some influence on school affairs than teachers in SFA schools (score of 1.34 versus 1.16 on a standardized scale of 0 to 2, in which 0 means “no influence” and 2 means “a great deal of influence”). Also, AS teachers reported meeting with other teachers somewhat more frequently to discuss school needs, goals, instruction, and curriculum than teachers in the other three types of model schools. The differences in the frequency of meetings were not large, however: 1.24 versus 1.06 to 1.08 (in which 1.5 is for meeting “about monthly” and 1.0 is for meeting “about once per marking period”).

Student Assessments

Similarly, there were no differences among types of model schools in the frequency with which they assessed students and in which teachers reviewed assessment results with the principal, internal facilitators, or external coaches. All schools assessed students with about the same frequency, “once per marking period” (Table 5.5), which was short of the “more than once per marking period” prescribed by the four models. Teachers reported reviewing these assessments with their respective school internal facilitator and their external coach with the same frequency, regardless of whether the model prescribed it or not; they did so between “after some assessments” and “never.”

Table 5.5
Mean Assessment of Students Implementation Scores, by Type of CSR Model

Student Assessment Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Students are evaluated for reading multiple times per marking period	1.30	1.47	1.40	1.46
Teachers review their students' scores after all assessments with:				
- the school principal	1.27 ^a	1.01	1.02	1.03
- a coach/facilitator on school staff	0.86	0.75	0.83	0.91
- an external coach or consultant	0.36	0.22	0.36	0.25

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by CSR model.

^a Indicates differences with other three models are significant at 5% level.

The only exceptions to the above pattern is that AS teachers reviewed their student assessments' results with their principal at somewhat higher frequency ("after most assessments") than teachers in other schools ("between some assessments and most assessments"), even though this practice is not prescribed by the model.

Parental Involvement

Parent participation in various school activities did not differ across type of model schools, regardless of whether the models emphasized parental involvement or not. Schools reported that, on the average, about 38 percent of parents participated in special events, 13 percent attended education workshops, 9 percent volunteered, and 7 percent participated in various school working groups (Table 5.6). In all four types of model schools, parents were reported to participate in the school steering committee meetings only "sometimes."

In addition to encouraging parental involvement in various school activities, SFA requires that schools establish a teachers' work group focusing on ways to engage parents in their children's education and school affairs. SFA, CK, and DI schools established such a work group

Table 5.6
Mean Parental Involvement Implementation Scores, by Type of CSR Model

Parental Involvement Practices	Mean Implementation Scores			
	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Parents always participate in school steering committee	1.32	1.69	1.48	1.38
School has a parent involvement work group that meets weekly	0.65	0.89	0.82	0.92^a
At least 85 % of parents attend special events	1.11	0.98	0.82	1.05
At least 35 % of parents attend education workshops	0.82	0.73	0.70	0.83
At least 25 % of parents volunteer	0.81	0.99^b	0.66	0.73
At least 20 % of parents attend school working groups	0.71	0.76	0.65	0.70
Teachers require parents to sign off on student's homework	1.16	1.08	0.92	1.69^c
98 % of parents return signed student homework	0.76	0.70	0.56	1.06^c

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold means practice is specifically prescribed by CSR model.

^a Indicates difference with AS is significant at 5% level.

^b Indicates difference with DI is significant at 5% level.

^c Indicates differences with other three models are significant at 5% level.

with about the same level of frequency (AS schools were much less likely to have done so). On average, about one out of two SFA CK, and DI schools established a work group, compared to one out of three AS schools.

Notably, SFA teachers, as intended by their model, were 50 percent more likely to require parents to sign off on assigned reading homework than teachers in the other three type of model schools. In turn, parents of students in SFA schools were similarly 50 percent more likely to comply with the sign-off requirement than parents in the other types of model schools. An average of 52 percent of parents in SFA schools reported signing off on homework, compared to 34 percent of parents in the other three types of model schools.

Differences Between Model and Nonmodel Schools

Below, we compare the practices of model schools with those of their matched comparison schools, focusing on those practices that differed between the two types of schools.³ Unlike the previous section, differences between model and nonmodel schools are discussed separately for each model.

Accelerated Schools

AS schools differed most sharply from their matched nonmodel schools in two areas: governance practices and frequency with which teachers had their students work collaboratively in pairs or groups (Table 5.7). Both areas are prescribed by the AS model.

AS schools had more working groups than nonmodel schools, and AS principals and teachers attended such working groups more frequently than teachers in nonmodel schools. On average, AS schools had about one more working group than nonmodel schools. AS principals attended their school's curriculum and instruction working group about twice a month, while their counterparts in nonmodel schools did so about monthly. AS teachers attended this working group, on the average, monthly, while teachers in nonmodel schools did so less frequently.

AS teachers were about 15 percent more likely than other teachers to agree that their skills and expertise as professionals were utilized to address schoolwide issues, and 12 percent more likely to agree that they had a great deal of influence over school decisions.

Although not prescribed by the model, but consistent with the model emphasis on staff involvement with school affairs, teachers in AS schools were more likely than teachers in nonmodel schools to review their students' scores with their principal after all assessments. They did so after "most assessments," while their counterparts did so after "some assessments." Similarly, although not required by AS, teachers in AS schools assigned 20 minutes of homework more frequently than

³ All differences between model school and nonmodel school averages discussed in this section are significant at the 5 percent level or lower.

Table 5.7
Practices That Are Markedly Different Between Accelerated Schools and Matched Comparison Schools

School Practices	Mean Implementation Scores	
	Accelerated Schools	Matched Comparison Schools
Instructional Practices		
Students work collaboratively in groups of pairs every school day	1.28	1.13
Teachers assign 20 minutes or more reading homework daily	1.47	1.23
Governance		
Teachers have a great deal of influence over school decisions	1.34	1.20
School steering committee meets weekly	1.47	1.38
School has 5 or more working groups	1.54	1.26
Teachers participate weekly in working groups addressing curriculum	0.97	0.76
Teachers participate weekly in working groups	0.62	0.53
Principal participates weekly in curriculum and instruction working group	1.36	1.08
Teachers formally meet weekly to develop or review student assessments	1.35	1.11
Teachers formally meet weekly to assess school needs	1.24	1.06
Teachers agree their skills and expertise are utilized to address schoolwide issues	1.66	1.43
Assessment of Students		
Teachers review students' scores after assessment with principal	1.26	0.90
Parental Involvement		
A parental involvement working group meets weekly	0.65	0.88

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold indicates the practice is prescribed by Accelerated Schools. All differences in practices between Accelerated Schools and non-model schools shown in this table are significant at the 5 percent level or lower.

teachers in nonmodel schools, and they also required parents to sign off on their children's homework more frequently. They assigned reading homework on the average about three times a week compared to two times a week for teachers in nonmodel schools. AS teachers are encour-

aged to identify issues in the Taking Stock phase of model implementation and these differences may reflect “solutions” that were adopted by some AS schools to address identified deficiencies in reading.

Overall, there were no differences between model and nonmodel schools in the frequency with which teachers used the instructional techniques of Powerful Learning in their classroom, just as there were no differences in the use of these techniques across the four model schools (as noted earlier). However, as prescribed, AS teachers had students work collaboratively in their classrooms more frequently than teachers in nonmodel schools, although the difference was not large (1.28 versus 1.13, in which 1.5 means “2–4 times a week” and 1.0 means “once a week”).

Unexpectedly, given the AS emphasis on parental involvement in school affairs, the comparison schools were more likely to have a weekly parent involvement working group. Conceivably, AS schools placed a higher priority on establishing working groups focusing on school needs, curriculum, and/or instruction than on parent involvement.

Core Knowledge

What distinguished Core Knowledge schools from their matched nonmodel schools is an integrated comprehensive curriculum covering all academic areas and all grades. Core Knowledge teachers were 18 percent more likely than nonmodel schoolteachers to agree that their curriculum was well coordinated across grades, and 59 percent more likely to agree that their school’s yearlong plan/pacing guide was used to minimize overlaps across grades (Table 5.8). These teachers were also more likely than their counterparts to have contributed to the development of the yearlong plan.

A high level of parent involvement in school activities was another area of difference between CK schools and their matched comparison schools. Principals of CK schools reported that 13 percent of their students’ parents volunteered, compared to 5 percent of parents in matched schools. The difference was similar for parent participation in school working groups and education workshops, although overall participation, at less than 10 percent, was low at both model and comparison schools. And CK parents were 33 percent more likely than their

Table 5.8
Practices That Are Markedly Different Between Core Knowledge Schools
and Matched Comparison Schools

School Practices	Mean Implementation Scores	
	Core Knowledge Schools	Matched Comparison Schools
Curriculum		
Curriculum is well aligned with state standards	1.38	1.64
Yearlong plan/pacing guide is used to minimize curriculum overlaps across grades	1.47	1.07
Teachers contributed to development of yearlong plan	1.08	0.59
Methods of Instruction		
Teachers usually or always follow closely an explicit word-for-word text or script	0.41	0.22
Tutoring		
Students receive supplemental tutoring in reading	1.42	1.68
Students receive tutoring every school day	1.02	1.26
53 % of students receive tutoring in reading	0.65	0.83
Teachers teach reading to students in small groups majority of time	1.06	0.80
Governance		
Teachers agree all staff has a strong sense of school purpose	1.80	1.61
Parental Involvement		
Parents always participate in school steering committee	1.68	1.26
At least 35 % of parents attend education workshops	0.72	0.43
At least 25 % of parents volunteer	1.01	0.42
At least 20 % of parents attend school working groups	0.78	0.43

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold indicates the practice is prescribed by Core Knowledge. All differences in practices between Core Knowledge schools and non-model schools shown in this table are significant at the 5 percent level or lower.

counterparts in nonmodel schools to participate in their school's steering committee. This is consistent with what we were told in case studies about the increased interest in school activities generated among parents by the CK curriculum.

CK also seemed to generate an increased sense of school purpose. Teachers in CK schools reported that they were 12 percent more likely to agree that they had a strong sense of school purpose than teachers in nonmodel schools.

On the other hand, CK schools were less likely than nonmodel schools to provide supplemental tutoring in reading to their students. Seventeen percent of CK students received such services, compared to 22 percent of students in nonmodel schools.

Direct Instruction

Direct Instruction schools differed from their matched comparison schools in only a few prescribed practices for instruction and groupings of students (Table 5.9). Regarding instruction, DI teachers were more likely to follow an explicit word-for-word script as provided by the model than their counterparts in matched schools. They followed their script “somewhat closely,” while teachers in matched schools were likely to follow theirs “not very closely.” Having to follow closely a word-for-word script may partially explain why DI teachers were less likely than their counterparts in nonmodel schools to engage in various instructional practices. They were less likely than their counterparts to have their students work collaboratively in groups or pairs every school day, with DI teachers reporting doing so about “once a week” compared to about “twice a week” for teachers in nonmodel schools. They also devoted somewhat less instructional time to hands-on activities, individual exploration, activities that connect to student backgrounds and thematic instruction than teachers in nonmodel schools, and were less likely to assign 20 minutes of reading homework.

As required by DI, however, teachers were 10 percent more likely to report that students in their school were assigned to classes by reading level.

The use of supplemental tutoring differed between DI and their matched schools, although not in the direction expected, given the model’s emphasis on providing supplemental tutoring to lagging students. Teachers in DI schools were 12 percent less likely than their nonmodel counterparts to have students in their classroom receiving supplemental services in reading.

Table 5.9
Practices That Are Markedly Different Between Direct Instruction Schools
and Matched Comparison Schools

School Practices	Mean Implementation Scores	
	Direct Instruction Schools	Matched Comparison Schools
Instructional Practices		
Students work collaboratively in groups or pairs every school day	1.06	1.24
Teachers devote more than 75% of instructional time on:		
– hands-on activities	1.02	1.14
– individual exploration	0.88	0.95
– activities that connect to students’ backgrounds	0.96	1.07
– thematic instruction	0.92	1.03
Teachers follow an explicit word-for-word script closely	0.95	0.38
Teachers assign 20 minutes of reading homework daily	1.34	1.44
Students receive supplemental tutoring in reading	1.47	1.62
Governance		
School steering committee meets at least weekly	1.39	1.28
Principal participates weekly in the curriculum and instruction working group	1.34	1.19
Grouping of students		
Students are assigned to reading classes based on academic performance	1.50	1.24

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold indicates the practice is prescribed by Direct Instruction. All differences in practices between Direct Instruction schools and non-model schools shown in this table are significant at the 5 percent level or lower.

Success for All

Of the schools that used a CSR model, Success for All schools had the most number of prescribed practices that differed from their matched comparison schools. They differed in select instructional practices, ways of grouping students, frequency of assessing students, and in the extent of parent involvement in school activities and student homework, all practices prescribed by the model (Table 5.10).

Table 5.10
Practices That Are Markedly Different Between Success for All Schools and Matched Comparison Schools

School Practices	Mean Implementation Scores	
	Success for All Schools	Matched Comparison Schools
Instructional Practices		
At least 75% of teachers are certified	1.49	1.25
Students work collaboratively in groups or pairs every school day	1.68	1.27
Teachers usually or always closely follow a script	0.85	0.35
Teachers give students 20 minutes or more reading homework daily	1.72	1.42
Tutoring:		
Students receive supplemental tutoring in reading	1.30	1.60
Tutored students receive tutoring every day	0.93	1.20
53 % of students receive tutoring in reading	0.72	0.93
Governance		
Principal participates weekly in the curriculum and instruction work group	1.34	1.16
Teachers have a great deal of influence	1.16	1.26
Grouping of students		
Students are assigned to reading classes based upon current level of achievement	1.71	1.32
Students in teachers' reading class or groups are at about the same reading level	1.43	1.05
Students are reassigned to reading classes every 6–8 weeks based on a criterion or standardized test	1.49	0.65
Students with lowest reading skills are placed in smaller groups	0.58	0.94
Teachers teach reading in small groups a majority of the time	0.28	0.84
Parent Involvement		
At least 85 % of parents attend special events	1.05	0.84
At least 35 % of parents attend education workshop	0.83	0.51
Teachers require parents to sign off on student's homework	1.69	1.07
At least 98 % of parents return signed student homework	1.05	0.65

SOURCE: RAND-University of Washington principal and teacher surveys.

NOTE: Bold indicates the practice is prescribed by Success For All. All differences in practices between Success For All schools and non-model schools shown in this table are significant at the 5 percent level or lower.

With respect to instructional practices, SFA teachers were more likely to follow a word-for-word script than teachers in nonmodel schools. They followed a script “somewhat closely,” while their counterparts did not follow a script “very closely.” They also had their students work collaboratively in groups or pairs on an average of four to five times per week, compared to one to two times per week for teachers in matched schools. They were similarly giving their students at least 20 minutes of homework four to five times per week, while their counterparts in matched schools did so two to four times a week. And SFA schools were 20 percent more likely than nonmodel schools to have at least 75 percent of their reading teachers certified.

Contrary to expectation, and as was also noted above for DI and CK schools, the use of supplemental tutoring for lagging students in SFA schools was lower than in their matched schools. Students of teachers in SFA schools were 21 percent less likely to be provided with tutoring than students in matched schools, and, when receiving tutoring, were tutored once to twice per week, compared to two to four times per week for their counterparts in matched schools. Overall, SFA schools provided tutoring to 19 percent of their students, compared to 24 percent of students in matched schools. It may be that the use of SFA (and the DI and CK) scripted curriculum reduced the need for tutoring or additional instruction.

Principals in SFA schools were 50 percent more likely than principals in matched schools to report that students were assigned to reading classes based on their current level of achievement. SFA teachers were 33 percent more likely to report that the students’ reading classes or groups were at about the same reading level than comparison school teachers. Students in SFA schools were reassigned to reading classes on the average every 10 weeks compared to less than every 12 weeks for students in matched schools.

SFA’s emphasis on classroom rather than group level instruction and mainstreaming all students may be a reason why its teachers were 40 percent less likely than their counterparts in nonmodel schools to place their lowest-reading students in small groups.

SFA encourages parent involvement in school affairs, and SFA schools had consistently higher parental participation in various school

activities than their matched schools. For instance, on average, 42 percent of SFA parents attended special events, compared to 36 percent of nonmodel school parents. Similarly, 14 percent of SFA parents participated in education workshops, compared to 9 percent of parents in matched schools.

Also, teachers in SFA schools were nearly 80 percent more likely than teachers in matched schools to require parents to sign off on their children's reading homework. On average, 51 percent of SFA parents complied, compared to 30 percent of parents in matched schools.

Discussion

The model schools in our study generally used the same kind of curriculum, instructional, grouping of students, governance, student assessment, and parent involvement practices, regardless of their specific model. Similarly, nonmodel comparison schools generally used the same practices as their matched model schools.

Nevertheless, schools using a particular model practiced a number of select practices at a higher level of intensity or frequency than were practiced by other model schools and/or by their nonmodel comparison schools. These select practices include the following components.

Curriculum

As encouraged by Core Knowledge, teachers in schools using this model were more likely than teachers in other model and nonmodel schools to have contributed to the *development of their yearlong plan and to have used the yearlong plan to minimize curriculum overlap across grades*. These teachers were from 18 to 21 percent more likely to report that they participated in the development of the yearlong plan and that they used the yearlong plan to coordinate curriculum overlaps across grades. The differentials in these practices were smaller between CK and DI and SFA schools than between CK and AS schools, probably because DI and SFA models also provide the schools with a fully developed curriculum, unlike AS, which encourages the schools to develop their own. Otherwise, there were no notable differences across models

and relative to nonmodel schools with regard to alignment with standards, consistency of curriculum within and across grades, and keeping up with the pace of the school's yearlong plan.

Methods of Instruction

Students Working Collaboratively in Groups or Pairs. As prescribed by SFA, teachers in SFA schools encouraged their students to work collaboratively more frequently than teachers in other model and nonmodel schools. The AS model also prescribes this practice. However, AS schools were no more likely than CK and DI schools to do so.

Following an Explicit Word-for-Word Script. Teachers in DI and SFA schools were more likely to follow their scripted lessons, while teachers in the other model and nonmodel schools reported not following such a script very closely.

Daily Reading Homework and Parental Sign-off. Of the four study models, only SFA prescribes that students be given 20 minutes of reading homework every day and that parents be asked to sign off on the homework. SFA schools gave reading homework on an average of "2 to 4 times a week" to "every school day," while other model and nonmodel schools gave reading homework from "once a week" to "2 to 4 times a week." SFA schools were about 75 percent more likely to ask parents to sign off on homework, and parents in SFA schools were 20 percent more likely to comply.

Supplemental Tutoring. Both DI and SFA prescribe that supplemental tutoring be provided to students who may fall behind. Schools that used these models were *less likely* than their matched schools to provide supplemental tutoring in reading and to provide it to tutored students every school day. CK teachers were less likely than their matched nonmodel schools to provide tutoring. All three models (DI, SFA, and CK) provide a well-defined curriculum that may reduce the need for supplemental tutoring. The tutoring provided was typically in group settings rather than one-on-one, regardless of whether the latter was model-prescribed or not.

Grouping of Students

Student Groupings by Current Level of Achievement. DI and SFA schools, as prescribed, were more likely to group students in reading classes or groups by academic achievement, and SFA schools also more frequently reassigned students based on test results than their matched nonmodel schools. DI schools more frequently reassigned students based on test results than their matched nonmodel schools. DI schools, as prescribed, were also more likely to teach reading in small groups than other model schools, but no more likely than their matched model schools.

Governance

There were few notable differences in governance mechanisms and stakeholder participation among model schools. Teachers in AS schools, for which a prescribed form of governance is central, reported meeting slightly more frequently than teachers in other model and nonmodel schools to discuss academic and school issues. AS teachers also reported having somewhat more influence in school affairs. However, AS schools' governance differed in additional ways, as prescribed by the model, from the governance of their matched nonmodel schools. AS schools had more working groups focusing on specific academic issues, and these working groups met more frequently than in nonmodel schools.

Parent Involvement

With the exception of DI, the models encourage more parental involvement. Model schools reported a higher level of parental participation in various school activities than their matched nonmodel schools. For instance, parents in model schools were more than two-thirds likelier than parents in nonmodel schools to participate in schools' working groups.

Overall, there are few variations in the kind and level of practices across schools implementing different models and between model and nonmodel schools. Nevertheless, there were a number of practices prescribed by the models that were practiced at a higher level of intensity or frequency by model schools than by nonmodel schools. Often

the differences in intensity or frequency were not large, however, and further study is required to determine whether they are large enough to translate into a significant impact on student achievement. These findings also suggests that in future studies of student achievement, it will not be enough to use a general measure of model implementation, but that it will be necessary to differentiate between those few practices that differ between model and nonmodel schools, and those that do not.

Supporting CSR Models: Factors That Impact Model Implementation

In this chapter, having examined whether schools actually received the implementation support prescribed by the model developers, and whether schools implemented the model components (see Chapter Four), we examine whether any specific support mechanisms and/or school characteristics affect the degree of implementation. In other words, we investigate the following questions: Which support mechanisms were the most effective in assuring full implementation? Do other school characteristics (such as socioeconomic diversity) affect the degree of implementation?

The mechanisms of model support described in this chapter include external support (including external assistance from model developers and consultants), support internal to the school, district support, model-specific ongoing professional development, commitment of school personnel to the model, and adequacy of financial resources.

Methodological Note

For this analysis, we focused on four of the six core components, as shown in Table 6.1.¹ We investigated the relationship of the aver-

¹ We did not focus on “assessment of students” and parental involvement. The first was because there was little variation among schools regardless of model type, possibly because of the emphasis placed by Florida and Texas, and by the No Child Left Behind Act, on regularly assessing students. The second was because parental involvement requires third-party action, which is beyond the control of the school.

Table 6.1
Model Components Examined

Core Components	Accelerated Schools	Core Knowledge	Direct Instruction	Success for All
Curriculum Content	√	√	√	√
Methods of Instruction	√		√	√
Grouping of Students			√	√
Governance	√	√		√

NOTE: An empty box means that the model does not have specifications or support requirements for this component.

age implementation scores² for each core component of each model, in relation to the support mechanisms prescribed by the model and school characteristics (such as school climate, size, teachers' influence on school affairs, socioeconomic status, and diversity). Appendix I lists the complete set of model support indicators, grouped by support component, and the school characteristics considered in our analysis.

The strength of the relationship between model core component implementation averages and each of the model support indicators and school characteristics was examined individually through correlation,³ using simple linear and multivariate regression models.⁴ The simple regression models allowed an examination of the statistically

² The sets of indicators descriptive of the level of implementation of each of these core components are listed in Table 2.3 in Chapter Two and discussed in Chapter Four.

³ Throughout the text, correlations indicated as significant are in the positive direction unless otherwise stated.

⁴ Results from the multivariate analyses are available in Appendix J, but are not included in this chapter. We investigated the multiple regression models to learn what influence individual support mechanisms may have on implementation in the presence of other support also in use. In the end, because of the high level of multiple correlations within and among the support indicators, the resultant multivariate models must also be interpreted with care. For example, if principal and teacher professional development are both important to implementation and high-implementing schools tend to do both, only one of these may show up as significant in the multivariate model. In such instances, the multivariate model would indicate that professional development is important without being able to sort out whether one or the other (or both) are important. Ultimately, the multivariate regression models did not add to our understanding of how the support components are related to model implementation. However, for completeness, we include these results for the reader in the Appendix (with additional detail as to how these models were constructed).

significant correlations for practical significance and contextual validity through the size and sign⁵ of the applicable regression coefficient. The differences in sample size among the four models imply greater statistical power to detect significant relationships for DI and SFA (93 and 79 schools, respectively) than for the AS and CK schools (36 and 42 schools, respectively), that is, a relationship would need to be stronger to be detected with the AS and CK samples than with the DI and SFA samples: Appendix J contains a further discussion of statistical power. Results of our investigation of support for implementation within each model individually are also included in Appendix J. These include specific correlation and regression coefficients and *p*-values for all the relationships discussed below, as well as multiple regression results for each model component.

Model Support Provided to Schools and Level of Model Implementation

Below, we first discuss the results of the bivariate and simple regression analyses for each type of model support and for school characteristics. We then discuss the results across types of support and across models.

School Staff Commitment

As expected, teachers' commitment to the model was strongly related to level of implementation of most of the models' core components (Table 6.2). An empty box in the tables below means that no correlation was found. For example, for the three models that prescribe gov-

⁵ A negative coefficient on a support variable would imply the additional model support is associated with lower implementation, which, in most cases, would lack contextual validity. For example, if providing a higher level of model-specific professional development was correlated with lower implementation, that would be contrary to what one would reasonably expect, that is, lack contextual validity; after a certain level of professional development, additional hours may be expected to yield diminishing benefit, but not reverse gains in implementation level. Over the course of the full analysis, many individual significance tests are performed (for each of 12 total model components, there is a test for each support and each descriptive variable). At the $\alpha = .05$ level, we expect 5% of these tests to falsely indicate a significant relationship by chance.

Table 6.2
Staff Commitment: Significant Support Indicators, by Core Components and by Type of CSR Model

School Support	Curriculum			Methods of Instruction			Grouping of Students			Governance		
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Principal agrees “most teachers are fully committed to using model”		√√√	√√	√√√	√√							
Principal agrees “most parents are supportive of model”		√√√		√√√	√√		√√		√√			
Teachers agree “principal is committed to using model”		√√		√√√	√√				√√			
Teachers agree “teachers are committed to using model”		√√√	√	√√√	√√		√		√√			

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

ernance practices (AS, CK, and SFA), no relationship between level of implementation and teachers' commitment was found.

Teachers' perception that their principal is committed to using the model adopted by their school was associated with implementation of the curriculum prescriptions for CK and SFA, but not for AS or DI. In the case of AS, the fact that the curriculum guidelines are general, requiring only that it be aligned with the state standards and be coordinated within and across grades, may explain the lack of a relationship.

Principals' perception that "most parents are supportive of the model" was found to be related to the same core components of the same models as teachers' perception of the principal's commitment. Parents' support is highly correlated with teacher commitment, suggesting that parents are greatly impacted by teachers' attitudes.

Professional Development

Increased hours of professional development for principals and/or teachers were associated with high levels of implementation for those model core components that are especially emphasized by the AS, CK, and SFA models (Table 6.3). Principal and teacher professional development, the principal's attendance at AS leadership team training meetings, and use of the Inquiry Process to identify professional development needs were each related to the level of implementation of AS's methods of instruction (Powerful Learning) and with governance. The latter two indicators may reflect AS schools' ability to tailor professional development to their needs and the leadership of the principal.

Increased teacher professional development was also associated with implementation of CK's and SFA's curriculum and SFA's methods of instruction. The close association of teacher professional development with level of implementation of curriculum and methods of instruction reflects that, in practice, these two components are implemented at the classroom level. It also suggests that the practice of providing a higher level of professional development to principals than to teachers (as was described in Chapter Four) should be reconsidered.

In the case of SFA, significant correlations were seen between professional development and implementation of curriculum and instruction, despite the fact that SFA does not require professional

Table 6.3
Professional Development: Significant Support Indicators, by Core Components and by Type of CSR Model

Professional Development	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Principal received model-specified hours				√√	√√√					√√√		
Teachers received model-specified hours		√√		√√√	√√√		√√			√√		
Principal attended all or most leadership team training and network meetings this year					√√√					√√		
The school's professional development is the result of plans developed through the Inquiry Process					√√					√√√		

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

development beyond the first year. SFA schools indicating ongoing professional development for both teachers and principal averaged 0.27 points higher⁶ in curriculum implementation on the 0–2 scale than schools not indicating such activity. Implementation of SFA's student groupings was not associated with either principal or teacher professional development. As discussed below, the level of implementation of specific student grouping practices was associated with external expert assistance.

Implementation of the DI core components was not associated with professional development. The lack of such a relationship is puzzling, given that the level of professional development actually provided, while short of the prescribed amount, was similar to the level provided in the other model schools. However, the fact that we found no relationship in our sample should not be misinterpreted to mean that professional development does not matter for DI implementation; consistent implementation at levels closer to the prescribed level, as is not seen in our sample of schools, could still yield increased implementation.

Financial Resources

We found no relationship between the level of funding schools reported they had allocated for model implementation, and the level of implementation of any of the core components of any of the four models, with the one exception of AS methods of instruction. Similarly, in our sample of model schools, there was no significant relationship between the receipt of federal Comprehensive School Reform Act funds and the level of implementation.

However, for CK schools, there was a relationship between principals' assessment of adequacy of implementation funding and the implementation of the CK curriculum (Table 6.4). A possible reason for this unique relationship is that CK principals were much less likely to report they had sufficient funds than principals in AS, DI, and SFA schools, even though the full costs of CK are lower than the costs for the other three models. As noted in Chapter Four, only one-fourth of CK principals reported they had sufficient funds, compared to three-

⁶ Difference is statistically significant; $p < 0.001$.

Table 6.4
Financial Resources: Significant Support Indicators, by Core Components and by Type of CSR Model

Financial Resources	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Funding allocated (dollars)					√√√							
Principal disagrees "school has insufficient funds to support full implementation of model"		√√										

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

fourths of principals in the other three types of model schools, suggesting that for the latter, funding was not an issue. Also, the majority (73 percent) of CK teachers indicated they were not provided with all the relevant materials to implement the program, which, of course, does not imply that these materials are not necessary for successful implementation.

External Assistance from Model Developers/Consultants

A positive relationship between level of external assistance and schools' implementation of model core components was identified for all four models. What appears most important is not just the availability for consultation and oversight of an external consultant, but the interactions between the consultant(s) and principals and teachers (Table 6.5).

Interactions and/or frequency of interactions between the model developer/consultant and teachers were significantly correlated to the level of implementation of at least one component for all four models: level of implementation of instructional methods for AS and DI; curriculum implementation for DI and SFA; grouping of students for SFA; and governance for AS.

Access to a model developer/consultant for consultation was also correlated with implementation of the prescribed student groupings for DI and SFA schools. Such access was also found to be related to the implementation of prescribed governance practices for AS schools.

Frequency of interactions between the model developer/consultant and principals was weakly correlated with the implementation of governance in AS, CK, and DI student groupings. It was not correlated with any model curriculum or instruction component, with the exception of a weak association with SFA methods of instruction. Again, this suggests that because the classroom is where implementation of the model's curriculum and instruction takes place, teachers, not the principal, are key in determining what is implemented in the classroom and what is not.

None of the external assistance indicators were correlated with implementation of CK. CK relies primarily on an internal facilitator for implementation of its model, so this finding is consistent with CK's approach.

Table 6.5
External Assistance: Significant Support Indicators, by Core Components and by Type of CSR Model

Model Developer Support	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
School has external consultant								√√	√	√√√		
Model staff visited school specified number of days during the year				√√								
Frequency principal met with external consultant							√	√		√	√	
Teachers interact formally with external consultant			√√		√	√√			√√√	√		
Frequency teacher met with external consultant			√						√√			
Principal agrees "model staff provide adequate support to the school"				√		√√			√√	√√		

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

Internal Facilitator

Both the amount of time provided to an internal facilitator and the frequency of interactions between the facilitator and principals and teachers were positively associated with implementation of the DI and SFA curriculum, both of which have more prescriptive and detailed curriculum requirements than the other two models (Table 6.6). This suggests that, when the curriculum is very prescriptive, having an internal facilitator may be particularly important to help teachers with understanding and applying the curriculum in the classroom, and to develop and follow the yearlong plan.

The time an internal facilitator is allocated and the frequency of interactions with principals were also correlated with implementation of student groupings in SFA schools, although not in DI schools. A potential reason for the difference between these two models is that SFA requires students to be grouped by level of performance across classrooms as well as across groups within classrooms, whereas for DI this requirement applies only to grouping of students within classrooms. The internal facilitator may be particularly useful in ensuring student groupings across classrooms, as indeed we were told in our case study visits to SFA schools. Within their classrooms, teachers can do the groupings themselves.

Our results suggest that the internal facilitator may be less important in supporting methods of instruction for models that are fully scripted, such as DI and SFA. But the positive relationship between frequency of meetings between teachers and facilitators and implementation of AS's methods of instruction, although slight, suggests that an internal facilitator may play a useful role in models such as AS that provide general guidelines that need to be translated into specific practices in the classroom.

Table 6.6
Internal Facilitators: Significant Support Indicators, by Core Components and by Type of CSR Model

Internal Facilitator	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Internal facilitator allocated specified amount of time for model coordination			√	√√√					√√			
Frequency principal met with facilitator				√					√√			
Frequency teachers met with facilitator			√√		√							

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

Overall, the relationship between model component implementation and the internal facilitator is less consistent across models than was the case with professional development or model developer support and external assistance.⁷

District Support

Only a weak relationship was found between AS implementation of its curriculum and principals' perceptions that the district gave the school all the support it needed to implement schoolwide programs. A similarly weak association was found between DI implementation of its curriculum and the principals' perceptions that "state and/or district policies and regulations impede schools' efforts to improve student performance" (Table 6.7).

Although our survey results present little evidence of reliance on district support, one should not conclude that district support is unimportant. The indicators collected on the principal survey, while informative, do not measure specific support mechanisms offered by each district, which we were unable to explore in this study. Instead, they measure only the perception of the principal, and each principal may have a different perspective on what district actions constitute support or create impediments.

School Characteristics

The relationship between level of implementation of core components and a broad set of school, student, principal, and teacher characteristics was also explored.⁸ Of this broad set of variables, three were found to be most frequently associated with level of implementation and are discussed in more depth below: teacher level of control, school climate,

⁷ This lack of consistency may be because of the different roles that the internal facilitators are expected to play for the different models, that is, curriculum coordinator, instructional coach, model point person. The significance of these different roles was not investigated in this study.

⁸ See Table I.2, Appendix I, for a list of variables considered.

Table 6.7
District Support: Significant Support Indicators, by Core Components and by Type of CSR Model

District Support	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
District gives the school all the support it needs to implement schoolwide programs	√											
Principal disagrees "state and/or district policies and regulations impede school's efforts to improve student performance"			√									

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

and race/ethnicity (Table 6.8).⁹ The complete list of characteristics that were explored in relation to model implementation may be found in Appendix I, and correlation results for each characteristic may be found in Appendix J.

Teacher level of control is the average teacher responses to three 5-point Likert scale questions (in which 1 = no influence and 5 = a great deal of influence) that asked the level of influence teachers had over (1) developing goals for the school, (2) adjusting the curriculum, and (3) deciding how the school budget will be spent. Level of control may be construed to be a measure of teacher involvement and stake in school academic affairs. This variable was positively and strongly associated with CK's and DI's curriculum implementation, with DI's methods of instruction, and with SFA's governance. This sense of influence on school decisions seems particularly important for implementation of DI. Earlier in this chapter, we noted that DI teachers' commitment to the model was only somewhat associated with implementation of DI curriculum and not associated with DI methods of instruction. It may be that it is easier to implement a model in schools where teachers feel they have influence on school decisions.

School climate, in turn, is the average response to six 5-point Likert scale questions (in which 1 = strongly disagree and 5 = strongly agree) that asked teachers the extent to which they agree that (1) all staff and school administration have a strong sense of the school's purpose, (2) the principal is responsive to their concerns, (3) teacher morale is high, (4) discipline is not a problem in their school, (5) all students in their class are capable of achieving at high standards, and (6) their skills and expertise as a professional are utilized to address schoolwide issues. School climate may be construed as a measure of staff's cohesiveness and positive attitudes toward each other and the school. This variable was associated with the same core components for the same models as teacher level of control, and, in addition, to CK governance (both CK and SFA prescribe regular teacher meetings). These two variables (teacher level of control and school climate), in turn, are highly

⁹ The effects of teacher level of control and school climate were not investigated for AS schools because they characterize prescribed governance and other practices by AS.

Table 6.8
Significant School-Level Descriptive Variables, by Core Components and by Type of CSR Model

School-Level Variable	Curriculum			Methods of Instruction			Grouping of Students			Governance		
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Teacher's Level of Control		√√√	√√√			√√√						√√√
School Climate		√√	√√√			√					√	√√
Students' Race/Ethnicity	√√				√√	√		√√			√√	√√

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

correlated, suggesting that teachers' involvement in school affairs typically is associated with having a more cohesive staff and positive school climate.

Race and ethnicity variables surfaced as significant for all models, although for different core components and occasionally in different directions. AS schools tended to experience lower implementation with higher Hispanic populations (curriculum) and higher percentages of African American populations (methods of instruction). By contrast, higher percentage of Hispanics was associated with higher implementation of DI methods of instruction.

DI schools with a higher minority population were also more likely to rely on grouping students by performance, while governance implementation was likely to be higher for CK schools with higher minority populations and for SFA schools with higher Hispanic populations.

Relative Importance of Mechanisms of Support for Model Implementation: Discussion

Our findings are generally consistent with the findings of previous research (see Chapter One) and provide additional confirmation of the importance that model developers place on the various mechanisms of support in order to successfully implement their respective models according to design. They also provide more detailed information than previous research about which types of support may be most important for the implementation of the various core components for each of the four models. However, our conclusions should be regarded as tentative, based on small sizes, albeit larger than in most previous studies, and lack of randomness and consequent limited generability of our sample of model schools. Before our conclusions can be widely accepted, additional research is needed.

Table 6.9 summarizes the correlations between model support and model implementation discussed throughout this chapter. We also discuss those support mechanisms that are most important to each model's components.

Table 6.9
Significant Support Indicators, by Core Components and by Type of CSR Model

Type of Support	Curriculum			Methods of Instruction			Grouping of Students		Governance			
	AS	CK	DI	SFA	AS	DI	SFA	DI	SFA	AS	CK	SFA
Professional Development		√√		√√√	√√√		√√			√√√		
Model Developer Support			√√	√√	√	√√	√	√√	√√√	√√√	√	
Internal Facilitator			√√	√√√	√				√√			
School Support		√√√	√√	√√√	√√		√√		√√			
District Support	√		√									
Resource Requirements		√√										
Teacher's Level of Control		√√√	√√√			√√√						√√√
School Climate		√√	√√√			√					√	√√
Students' Race/Ethnicity	√√				√√	√		√√			√√	√√

SOURCE: RAND Corporation–University of Washington principal and teacher surveys.

NOTE: One, two, or three check marks indicate a statistically significant correlation between support indicator and level of implementation of core components at the .10, .05, or .01 levels, respectively. An empty box means that no correlation was found.

When the model features a detailed prescribed *curriculum* (e.g., CK, DI, and SFA), a higher level of implementation requires, first and foremost, the commitment of the school's teachers to the model. In addition, several other types of support are associated with higher curriculum implementation, although they differ depending on the type of curriculum being implemented. The more cohesive and positive the school climate, the higher the implementation of the CK and DI curriculum. (CK's curriculum requires teachers to make a major "mind shift" and otherwise to refresh their memory on topics they may have long forgotten; DI's curriculum is scripted in great detail.) By contrast, implementation of SFA's curriculum is related to continuing professional development. Beyond these factors, a high implementation of the DI and SFA scripted curricula are associated with a higher frequency of interactions between teachers and an internal facilitator.

Unlike CK, DI, and SFA, AS does not prescribe a specific curriculum content intended to be implemented uniformly in all AS schools, but rather provides broad guidelines that allow each school to select its own curriculum. For AS, the only curriculum support that is associated with implementation at all is district support, possibly because any changes in the curriculum that individual schools might want may require district approval or at least acquiescence.

Teacher commitment is also important for implementation of *methods of instruction* for AS and for SFA, as is ongoing professional development for both models. However, these variables were not related to the implementation of DI methods of instruction. Instead, for implementation of DI's scripted, word-for-word lessons, the factor most strongly associated with instruction implementation is the frequency of teachers' interactions with an external facilitator. A high level of teacher influence on the school's academic affairs also appears to be related to implementation of DI methods of instruction.

The implementation of *grouping of students* by academic performance in classrooms and/or groups as prescribed by DI and SFA was higher when the availability and/or frequency of interactions with an external contractor was also higher. In addition, for SFA, the frequency of interactions of the principals with an internal facilitator was associated with higher implementation at the classroom level. As noted

in Chapter Four, one of the functions of internal facilitators in SFA schools is to assist in the grouping of students. For DI, no other support component provides any significant association with student grouping implementation, but the grouping of students was more likely to occur in schools with a high percentage of minorities.

Of our four study models, AS is the only one that emphasizes a well-defined process of governance, needs assessment, and problem-solving that should involve all school staff. Two factors were found to be associated with a higher level of implementation of AS governance practices: ongoing professional development and the assistance of an external consultant. School staff typically do not have the problem identification and solving skills required by the AS model, and therefore may rely more on these two types of support. By contrast, governance prescribed practices by CK and SFA are limited to the holding of regular weekly meetings among teachers within grades (SFA) and within and between grades (CK). Conformance to this type of requirement is facilitated by a positive and cohesive school climate. Such meetings are also more likely to take place in schools that have a high Hispanic population.

Conclusions

Our study was designed to accomplish two major goals: (1) to develop a methodology to measure the level of implementation of comprehensive school reform models that can be used for different models, and (2) to apply this methodology to measure actual implementation of a selected group of CSR models in a variety of schools. We have fulfilled these goals by developing a unique methodology that is sensitive enough to capture meaningful variations in implementation levels across model types and across schools, and documenting variations in the implementation practices prescribed by each model.

In this chapter, we revisit our key findings regarding implementation, and note the implications for improving the implementation of CSR models. Throughout this discussion, we recognize that we did not measure all dimensions of the four models included in the study, although we did measure those deemed most important by the model developers. In addition, we recognize our data are cross-sectional and that our sample of schools, although large compared to most other studies, is not fully representative of schools using these models in Florida and Texas. Nevertheless, the analyses presented in this report provide new insights and advance our understanding of how fully CSR models get implemented; how practices of model schools differ from those of nonmodel schools; the implementation challenges encountered by schools; and the types of interventions that might address these challenges. They also provide cautionary insights for future research.

To a large extent, the first year or so of CSR implementation determined the extent of the implementation. Overall, the level of implementation remained constant, regardless of how long

schools had been using the models they had adopted. Hence, the initial preparation and training can be expected to affect how well a school will implement and sustain a model over time. In general, the model schools in our study typically received only a part of the initial training that model developers deem necessary. Moreover, even when given the full amount of training, teachers still felt unprepared to fully implement the curriculum, instructional, and other components of their school's adopted model. These findings suggest that greater emphasis should be placed on preparation and training up-front. They also suggest that model developers should evaluate the effectiveness of their training and consider teachers' suggestions for improvement, including providing more opportunities for modeling new instructional practices.

Overall, staff commitment to the model was insufficient, and external and internal support fell short of model developers' requirements. Before agreeing to work with a school, model designers generally require that a majority of the school staff vote in favor of adopting the model. We found, however, that a majority vote did not translate into teachers' commitment to the model. Teachers reported voting for adoption not because they supported the model, but rather because they felt that the principal (who had typically selected the model without consulting the staff) was going to go ahead anyway. So, although principals perceived that teachers were committed to the school's model, teachers themselves reported only a lukewarm commitment, which did not vary by the length of time the school had been implementing the model. Because staff commitment is vital to implementation, principals should ensure that staff are engaged in model selection, and principals and model developers should work together to gain a greater staff commitment.

Similarly, ongoing support was inadequate. Teachers received about one-quarter of the ongoing professional development prescribed by the model developers. Both the level of external assistance from the model developer/consultant and the time allocated to an internal facilitator fell short of recommended amounts. It may be that schools do not have sufficient time or staff to devote to model implementation, or that they lack the flexibility to reallocate their resources, or, alternatively,

that they are not motivated to do so. In any case, partial implementation is the likely result. The importance of adequate support is more fully discussed below.

The level of implementation of core components was associated with the type and level of external and internal support. Different types of support were associated with the level of implementation of different core components:

- *School staff commitment.* Across all models, commitment of either or both the teacher(s) and the principal was associated with the level of implementation of at least one of three core components: curriculum; methods of instruction; and/or student groupings. This underscores the importance of nurturing commitment through staff involvement in model selection, adequate initial training, and implementation support.
- *Professional development.* Although less important than staff commitment to implementation of a model, the level of ongoing professional development for teachers was also associated with the level of implementation in two core areas: curriculum and methods of instruction. Principals typically received more ongoing professional development related to the model than teachers. However, the level of professional development for teachers was consistently associated with the level of implementation. This suggests that model developers' current emphasis on professional development for principals should be reconsidered to place more emphasis on teachers.
- *External assistance.* The availability of external assistance from model developers/consultants was associated with a higher level of implementation in two core areas: student groupings and governance—both of which require schoolwide mechanisms and processes. For another core area, methods of instruction, whether teachers interacted with the external consultant was associated with the level of implementation.
- *Internal facilitator.* The time allocated to an internal facilitator, and, to a lesser extent, the frequency of meetings between the facilitator and the principal and teachers was associated with implementation of two core areas: curriculum and student group-

ings. Alignment of the model's curriculum with district and state standards, curriculum coordination within and across grades, and student groupings are schoolwide activities that may benefit from the assistance of an internal facilitator. The internal facilitator was not associated with implementation of instructional practices, possibly because it is not that person's role to support instruction, or because the facilitator may be less effective in activities that take place within the classroom. Internal facilitator support was also not associated with governance.

The staff's commitment to the model was closely associated with the implementation of all core components. Other forms of support (including external support from the model developer/consultant and internal support from the internal facilitator) appear to have more specialized roles in supporting implementation.

Schools tended to implement some model practices at a higher level than others. Generally, schools were able to implement their respective adopted model curriculum as designed, with occasional minor departures to compensate for perceived gaps such as placing more emphasis on reading comprehension or altering a topic's sequence or depth of coverage to meet state or district standards. Beyond that, schools and their teachers had particular difficulties in implementing changes in methods of instruction, suggesting that ongoing professional development focusing on the model's instructional practices would be particularly beneficial. Also, the high variations in level of implementation across schools relating to grouping students and reassigning such groupings by level of performance suggest that some schools may have found such practices to be beneficial, while others experienced them as either disruptive or unnecessary. Finally, practices to increase parental involvement were consistently implemented at a lower level than any other model component. To the extent that parental involvement practices are deemed important, more attention should be given to their implementation by school principals and model developers. If this area is not important, model developers should consider deemphasizing or deleting it from model design, to minimize diverting resources to a low-priority area.

Support mechanisms were maintained beyond the first three years of implementation. Typically, model developers recommend that internal and external support be provided for only the first three years of implementation. However, we found that schools that had been using a model for four or more years were just as likely to continue to receive external assistance from a consultant or the model developer, to have a designated internal facilitator, and to provide ongoing professional development to their teachers as schools in their first three years of implementation. We also found, as other researchers had previously documented, that a large proportion of schools that adopt a CSR model later abandon it. These facts suggest that continuing support may be necessary for schools to sustain implementation of a CSR model, and that such support should be included in the model design and explained to prospective model schools before comprehensive reform is undertaken.

Few schools fully implemented all components of the model design. Schools only partially put in place the methods of instruction, grouping of students, governance, assessment of students, and parental involvement prescribed by the models. Although, on the average, some core practices were implemented at a medium to medium-high level, typically no schools implemented all model core components fully. A few schools were model schools in name only, for the reasons discussed in the next paragraph. In between these two extremes, there was a broad range of implementation levels. This broad distribution provides a potential explanation for the broad range of results—some positive, some neutral, and some even negative—that other researchers have found regarding CSR's effects on student achievement (see Chapter One). We would expect that student achievement would be affected by the level of implementation in the sample of schools being analyzed. It may be that those studies that have found positive effects on student achievement were based on a sample of schools that had implemented their models on the high side, and that those that found no effect or even negative effects were on the low side. The level of implementation must be known before one can decide whether a model is effective.

Regardless of model design, few practices differed between schools using different models and between model and nonmodel

schools. Schools that adopted a model generally engaged in the same practices regarding instruction, grouping of students, governance, assessment of students, and parental involvement, and at the same level of intensity or frequency, as other model and nonmodel schools. But a number of prescribed model practices were implemented at a higher level or used more frequently by schools that had adopted that model. They included:

- Teacher participation in development of the yearlong plan and its use to minimize overlaps across grades (prescribed by CK).
- Students working collaboratively in groups or pairs (prescribed by AS and SFA).
- Teacher adherence to lessons' word-for-word script (prescribed by DI).
- Assigning daily homework and requiring that parents sign off on that homework (prescribed by SFA).
- Placement of students into groups by reading performance level (prescribed by DI and SFA) and reassignment of students to classrooms based on standardized or criterion tests (SFA).
- Establishment of teacher working groups to discuss instruction and other school affairs (prescribed by AS and SFA).

Two practices were observed at a different level or frequency in some model versus nonmodel schools. These include:

- Parent involvement was higher in most model schools than in nonmodel schools, most particularly in the schools' working groups.
- Supplemental tutoring, whether prescribed or not, was lower in schools using a prescriptive model (DI and SFA) than in non-model schools, suggesting that such models may decrease the need for it.

Given the above limited differences in actual practices between schools that implement different models and between model and non-model schools, it is not surprising that research to date has found only

only modest effects of CSR models on student achievement.. This finding also suggests that future investigations of the implementation and effect of the CSR models need to be more differentiated; they should focus on which specific practice, or set of practices, prescribed by CSR models contributes the most to student achievement. As noted, only a subset of the practices prescribed by the various models in our study are practiced at a higher intensity or frequency. Isolating which of these are most effective would allow schools and their staff to eventually focus on them.

Our findings that different types of support are associated with the level of implementation of different core components, and, that overall, the level of support received by schools fell short of model developer requirements suggest another potentially fruitful area for future investigation. Here, the key question is which type of support at which level would contribute most to the implementation of which practices.

This study's experience suggests answering these questions using quasi-experienced designs will be difficult because of the dynamic nature of schools' comprehensive school reform implementation. However, studies such as this can produce insights that should eventually lead to the design of studies that can address the kind of differentiated questions posed above.

Finally, the method used in this study to develop a survey instrument that measures implementation of comprehensive school reform in both treatment and control sites can be applied in future studies. While the resulting conceptual framework and actual survey instrument may vary somewhat depending on the reform models and level of schooling, this research lays the groundwork for further investigation of implementation and impact of comprehensive schools reform across a large number of schools.

Protocol for Interviews with Model Developers

General Overview (what we already know is indicated under each question)

- What sets this model apart from others?
- What is its basis, its core, its underlying philosophy?
 - Grade-by-grade core curriculum
 - Based on the latest research from cognitive psychology
 - Schools need solid, sequenced curriculum with defined learning objectives
 - Curriculum can be systematically implemented across schools so that there is greater equity in learning
 - Knowledge makes you smarter, the more broad general knowledge you have, the more broadly competent you become; giving everybody more knowledge makes everybody more competent and creates a more just society
- What are its goals and objectives?
 - Goal of CK is to provide students with a foundation of broad knowledge allowing them to build upon previous knowledge
- What are its essential components?
 - Structured and systematic grade-by-grade curriculum
 - It strikes a balance between being prescriptive and being flexible (it is designed to encompass no more than 50% of the curriculum within a classroom; however, it does require teachers to cover all CK topics in the grade levels specified by a stated sequence)

- Emphasis on learning facts (part of its philosophy is that students can be more critical thinkers, more creative, faster learners, and have greater communication skills if they know a broad range of facts)
- Common teacher planning time (to research topics, to identify resources, and to develop learning goals, activities, and assessment)
- No specified instructional techniques (it does not provide guidelines for how to teach the material)
- Only general guidelines about how a school might implement the sequence are provided to schools
- What is the theory of student development that underscores the model?
 - Children learn by building upon what they already know
 - A broad-based knowledge foundation is necessary for further learning, to acquire cognitive thinking skills, complex concepts, etc.
- How was the curriculum developed?
 - From research on the content and structure of curriculum in the highest-performing elementary schools in the world
 - Curriculum was reviewed and revised by teachers; curriculum is periodically fine-tuned based on feedback from schools using it
- Is there an ESL/ESOL component in Core Knowledge? How do you deal with kids whose first language is not English?
- What is the demand for the model?
- Do you primarily reach out to schools or do schools primarily contact you?
- Do you have a limited capacity?

Implementation

- **What are the necessary steps a school must take in order to begin implementing CK?** (Is there an application? Does a set percentage of the teaching staff have to agree to its implementation? etc.)

- Schools must agree to teach all topics in the specified sequence in the prescribed grades
- Schools must:
 - Schedule an overview presentation, view a documentary on CK, visit CK schools, and view CK materials
 - Decide how to implement CK (e.g., one subject at a time, by certain grades, etc.)
 - Obtain all necessary materials for teachers
 - Schedule training workshops
- How do you determine a school’s readiness for CK implementation?
- What implementation indicators are used to track model implementation progress in schools? Is there a timeframe for each?
- How do you determine whether a school has fully implemented CK? What criteria are used to make this assessment?
- How frequently is a school’s progress assessed and by whom? How are these evaluations used?
- What kind and amount of support and feedback do model staff offer schools throughout the implementation process?
- Who typically initiates CK implementation in schools (e.g., principals, districts)? How does this affect implementation?
- What do CK staff do if a school is not keeping up with the model implementation?
- Is anyone in the school designated as a model facilitator or main contact person with CK? If so, who is this person, typically?
- How do you deal with uneven implementation within a school? What strategies do you recommend to schools to even the implementation across classes?
- What challenges do school and CK staff face during the implementation process?
- What resources or assistance are provided for teachers who lack the background knowledge to teach the CK curriculum?
- How do schools familiarize new teachers with the CK curriculum?
- How do you continue to provide support for the maintenance of CK?

- How challenging is it for a school to implement CK while attempting to respond to state or district accountability pressures?

Model Evolution

- How frequently are changes made in the CK program (especially in the curriculum)?
- How do you help schools adapt to these developments and changes?
- How has the model evolved over time?
- What future model changes do you foresee?
- Do you think there needs to be a CK program for high school?

Model Effects

- What are the model's anticipated outcomes?
- Does the model work equally well in all settings? If not, which settings are ideal? What factors do you believe are necessary for successful model implementation?
- Do you think that allowing total flexibility in instructional practices interferes with schools' ability to attain the desired model outcomes? (i.e., if teacher practices are critical to student achievement, are the effects of CK diminished when teachers are less effective, even when the school has fully implemented the model?)
- To what degree do you think disparate model effects across schools are due to differences in the level of implementation?

“Should Have or Do” CSR Model Requirements

This appendix contains the list of key “should have or do” practices prescribed by each of the study’s four models: Accelerated Schools, Core Knowledge, Direct Instruction, and Success for All.

ACCELERATED SCHOOLS*

I. CURRICULUM

Content	Teachers' instructional goals for each lesson should be linked to state, district, and/or school standards.
Supporting Materials	Classrooms should contain materials that students can easily and independently access, including books, equipment, references, and primary resources.

II. INSTRUCTION

Methods of Instruction	<ol style="list-style-type: none"> 1. Instruction should be tied to the school's written goals. 2. All teachers should be implementing Powerful Learning in their classrooms (after year one). <ul style="list-style-type: none"> • Teachers expect all students to learn at high levels. • Instruction reflects the constructivist philosophy (e.g., hands-on activities; building on students' prior knowledge, interests, and strengths; independent student projects) • Instruction is differentiated or individualized to suit students' varying learning styles and needs. • Teachers broaden instruction to community values and resources. • Teachers connect instruction to real-life situations or issues (e.g., the work world, the discipline, real-world problems). • Collaborative learning occurs in classrooms. • Teachers use the Inquiry Process to make decisions about student learning. • Students practice/develop self-critiquing and revision skills. 3. All students have access to the same challenging curriculum.
Student Groupings	None prescribed

III. STAFF DEVELOPMENT

Initial (i.e., year 1) Training	<ol style="list-style-type: none"> 1. School leadership team (including the principal) should receive 9 days of training by model staff — 5 days generally before school, and then 2 days on Powerful Learning, and 2 days on Inquiry, during the school year. <i>The leadership team consists of the principal, external coach (an external person typically identified by the school, with assistance from the districts, service center — if appropriate — and ASP), internal facilitator, and two school community members. Coaches also receive training prior to the summer training they attend with their schools.</i> 2. During year one, all school staff should receive at least 6 staff development days, as well as small-group staff development and ongoing coaching. 3. During year 1 all school staff should attend at least 3 staff development days to attend meetings that engage the entire school in governance and other key school processes (e.g., identifying school goals). Includes: <ul style="list-style-type: none"> • ½-day reporting/staff development with community after Taking Stock; • 1-day on Forging a Shared Vision with community; • Celebration after FaSV is completed, with community; • ½-day to establish schoolwide priorities with community 4. New school staff should receive training.
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Professional Development

1. School leadership team (described above) should receive up to 9 days of targeted professional development from model staff.
2. In years 2 and 3, all school staff should receive 6 days of professional development.
3. All school staff should receive ongoing coaching on instruction.
4. Professional development should be the result of using the Inquiry Process at the school.
5. During years 2 and 3, school staff should participate in 1 to 3 staff development days for meetings. Includes:
 - *At least 1 staff development day each year to engage the entire school in governance and other key school processes.*
 - *1–2 days every two to three years for a mini Taking Stock.*

IV. GOVERNANCE STRUCTURE AND PRACTICES

1. The entire school community should be aware of and strive toward common goals by end of year 1.
 - *Working groups (e.g., grade-level teams) focus on solving problems related to the school's goals for reform by year 2.*
 - *The working groups meet at least weekly by year 2.*
 - *At least two of the working groups focus on curriculum/ instruction or student achievement by year 2.*
 - *The working groups consist of school staff, parents, community members, and students where appropriate by year 2.*
 - *A steering committee (e.g., school council, school improvement team) monitors the activities of the working groups by year 2.*
 - *The steering committee meets at least twice a month by year 2.*
 - *The steering committee consists of school staff, parents, community members, students where appropriate, principal, and district representatives by year 2.*
 - *At least 80% of the school staff — and 100% of classroom teachers — participate in the working groups by year 2.*
 - *The school's governance bodies use a scientific method to solve problems (e.g., define problem, research, pilot-test, and evaluate potential solutions).*
 - *Members of all sectors of the school community (including staff, parents, community members, and students where appropriate) participate in making important decisions for the school through the working groups, steering committee, and other governance bodies.*
 - *Members of all sectors of the school community make important decisions for the school by consensus (i.e., group agreement) rather than by vote through the working groups, steering committee, and other governance bodies.*
 - *School "builds on the strengths" of school community in governance*

V. ACCOUNTABILITY

Assessment of Students

1. Multiple methods of assessment should be used (e.g., traditional tests, creating portfolios, writing essays, conducting a science experiment, describing process used to solve a math problem).

- Feedback on Instruction and Implementation
2. Students should demonstrate knowledge through authentic (i.e., real-world situations and contexts) performances and the creation of authentic products (e.g., creating portfolios, writing essays, conducting a science experiment, describing process used to solve a math problem).
 1. In later stages, coach helps evaluate school's progress, and serves as trouble-shooter and motivator.
 2. Designated staff member(s) should serve as internal facilitator(s) of reform. This person(s) should conduct training, plan staff development, and serve as resource for the school.
 3. Schools in year 3 ("mature" schools) will receive implementation ratings from ASP. Ratings will be based on:
 - *School self-assessment: Teachers complete Powerful Learning questionnaire; major stakeholder representatives (staff, parents, students, community) complete School Implementation questionnaire; steering committee tabulates results and also reviews agenda, minutes, and reports of governance bodies, as well as testing data, portfolios, and other evidence of student work; then, steering committee completes school implementation checklist based on this analysis and generates a summary.*
 - *Satellite Center external observation: Center representative(s) visit at least three classrooms randomly for 1–1.5-hour observations; attend at least one working group (cadre) meeting; study steering committee report; interview students, staff, and parents using semistructured interview protocol; meets with coach and principal; discusses discrepancies between school's and center's assessment of implementation; with coach and principal, completes a summary rubric.*
 4. School action plan: Steering committee should prepare an action plan that details how areas of low implementation will be improved.

VI. PARENTAL INVOLVEMENT

1. Parents should be represented on all decisionmaking governance bodies.

VII. RESOURCE REQUIREMENTS

1. *Training.* ASP charges \$45,000 per year for a minimum three-year commitment.
2. *Coach and facilitator.* See Professional Development section for external coach/internal facilitator responsibilities. School should provide salary and benefits for coaching support. In years 1 through 3, coaching support is the equivalent of a minimum of 1.0 FTE, to be shared by external and internal coaches, with the external coaching support a minimum of .33 FTE. Person serving as external coach must be approved by the satellite center.
3. *Time and resources.* As indicated in Governance section, school should provide time and resources for planning and other meetings for whole-school engagement in implementation of the governance structures.
4. *Release time and substitute teachers (as needed).* School should provide for initial training of five-member leadership team, and travel expenses for team to participate in monthly professional development, training, and the national conference.

5. Staff development. Already covered in the Staff Development section.

VIII. MODEL DEVELOPER SUPPORT

1. An external coach trained by the model design team should provide support to the school 1.25 – 2.5 days per week during year 1 (1.25 days/week at schools with < 1000 students, 2.5 days/week at schools with 1000+), and 1 day per week during subsequent years.
2. The coach provides two days of training for whole-school community right before school year begins. During year 1, the coach provides at least four days of additional training. In early stages, coach is more of a trainer and facilitator of change.

IX. SUPPORT

School and district authorities (e.g., the principal, central office staff) support decisionmaking at the school.

- Requirements for Becoming Official
1. At least 90% of school staff, along with representatives from the school community, should have voted to adopt the model.

CORE KNOWLEDGE

I. CURRICULUM

Content

- A specified core of topics and facts should be covered sequentially from grade-to-grade in each of the following academic areas: Language Arts, Mathematics, Sciences, History, and Visual Art (*The Core Knowledge sequence*).
- A detailed yearlong plan should be developed that specifies all items that will be covered (including e.g., each story, poem, and speech), state standards and skills to be taught
- The topics should be covered in monthly or weekly time periods.
- An approved structured reading program should be used: Open Court, Direct Instruction, or Success for All
- An approved mathematics program should be used: Direct Instruction, Saxon, or Singapore.
- All grades should use CK.
- CK curriculum covers 50% of each grade's curriculum.
- CK curriculum should be aligned with state and district standards (note: many times the timing of state standards and skills are not lined up to the timing of the *Core Knowledge Sequence*).
- Teachers should be provided a common planning time: A minimum of 90 minutes a week of uninterrupted planning time per grade level team is strongly encouraged. These common planning times should be used to research topics, develop yearlong curriculum plans, daily lesson plans, and to develop learning goals, activities, and assessment.

- Supporting Materials
- Teachers should have access to the *Core Knowledge Sequence*, *What Your Nth Grader Needs to Know*, *Dictionary of Cultural Literacy*, and the *Core Knowledge K–8 Guide*.
 - All teachers should refer to the *Core Knowledge Sequence* monthly.
 - Every teacher should have a map and/or globe in the classroom.

II. INSTRUCTION

- Methods of Instruction
- None prescribed

- Student Groupings
- None prescribed

III. STAFF DEVELOPMENT

- Initial Training
- Five days of initial training is provided covering an overview of CK, getting started, developing CK daily lesson plans and assessments, and unit writing.
 - The principal and the CK coordinator should visit a school fully implementing CK during the first year of implementation
 - Teachers are strongly encouraged to visit other CK schools.
 - Teachers should make a comparison of the *Core Knowledge Sequence* to the curriculum previously taught.
 - Principal and Core Knowledge Coordinator are encouraged to attend a 2-day Leadership and Core Knowledge Coordinator Institute.

- Professional Development
- Professional development should occur both externally (through CK staff visits and trips to national conferences) and internally (through feedback from classroom observations and internal staff development meetings).
 - Principals should attend all CK internal training.
 - Teachers' attendance at national or regional conferences is encouraged.
 - CK staff should provide training to new teachers.
 - The CK coordinator (see below) should receive intensive training in on-site coaching, monitoring, and evaluation.
 - Ongoing staff development includes site visits of implementation analysis, new teacher orientation, and developing CK units.

IV. GOVERNANCE STRUCTURE AND PRACTICES

- A school CK coordinator should be designated to coordinate CK training and CK-related meetings, order CK materials, observe classrooms to provide feedback to teachers. The coordinator is also the liaison with the CK Foundation.
- Teachers should hold weekly CK-related meetings.
- Teachers should collaborate to write lesson plans and define research topics.

V. ACCOUNTABILITY

- Assessment of Students
- The TASA/Core Knowledge test should be administered to grades 1-5 to measure students' progress.
- Feedback on Instruction and Implementation
- CK staff, the principal, and the CK coordinator and parents should observe classrooms to provide feedback to teachers on their level of CK implementation.
 - CK staff should assess implementation. The full staff should participate in implementation analysis that is to be used to adjust the yearlong plan and schoolwide plan for implementation.

- CK staff should provide feedback to teachers in personal conferences after each visit.

VI PARENTAL INVOLVEMENT

- Parents should participate in CK training sessions, CK meetings, and observe classrooms.
- Parental involvement is encouraged.

VII. RESOURCE REQUIREMENTS

- Sufficient money per teacher should be allocated to incorporate materials into CK.
- A plan should be developed to acquire additional resources to implement CK. This could come from the schools PTA/PTO, grant writing, or the reallocation of resources.
- There should be a list of CK resources available on campus.

VIII. MODEL DEVELOPER SUPPORT

- CK staff should make up to three two-days school visits annually (ideally in winter, fall, spring) to observe classrooms, confer with the principal, CK coordinator, and grade-level groups, and to assist as needed.
- In years 2 and 3, schools should receive 5 to 10 days of ongoing support.

IX. SUPPORT

- Requirements for Becoming Official
- At least 80% of teachers should commit to implement CK for three years.

DIRECT INSTRUCTION

I. CURRICULUM

Content

- A carefully scripted curriculum should be covered sequentially. Curricula are available commercially for Reading, Language Arts, DISTAR Language, Cursive Writing, Expressive Writing, Spelling, Mathematics, DISTAR Mathematics (see attached).
- If Reading is taught, Language should also be taught.
- All classes should use DI curriculum in full immersions programs.
- No conflicting curriculum textbooks and workbooks (e.g., word attacks skills, or above instructional level of students) should be used.
- Reading and Language should be scheduled every day.
- Reading should be taught in the morning and in the afternoon according to the required time given in the DI lesson. A reading or language group will typically meet for 30 minutes although the time should be sufficient to allow presentation of the whole lesson to the entire group and to allow teachers to work with individuals having difficulty on that day's or previous day's lessons and students to complete and revise independent work.

- Supporting Materials
- Schools should provide teachers with teaching manuals for DI program and these should be the only manuals used.
 - Critical rules and procedures (especially correction procedures) should be posted and easily visible to teachers and students.
 - All necessary DI textbooks, readers, and workbooks should be readily available for students. Children should not have to share.
- II. INSTRUCTION
- Methods of Instruction
- Teachers should follow the DI format as scripted.
 - Teachers should make clear, consistent signals so that student responses can be initiated in unison and then cease in unison.
 - Teachers should speak scripted lessons fluently without having to read the script.
 - When presenting a lesson, key instructional terms should be emphasized. For example, before saying aloud key words teachers should pause immediately before such words and then emphasize the word.
 - Teachers should verify all student responses by repeating the correct response. Teachers repeat steps in the format until at least 90% of children's responses are firm and fluent.
 - Students should be regrouped if they do not perform at 90% accuracy every day.
 - Teachers should provide individual students turns at the end of each task. The majority of individual turns should be presented to the lowest performers of the group.
 - Teachers should correct all errors immediately. The corrections should be appropriate to the errors.
 - Lessons should follow the DI recommend length of time for a lesson for all groups.
 - Lessons should be completed on schedule to meet expectations by the end of the first year of implementation (see attachment 2 for performance expectations). In the second year of the program, expectations are 20–30% higher.
 - Teachers should provide tutoring to students
- Student Groupings
- Student should be grouped in classes by performance not by learning style.
 - Within classes students should be placed in homogeneous small groups of 6-9 children according to performance level by the end of the first week of school.
 - Reading and Language should be at the same time for all classes in a grade to allow for cross-class groupings.
 - Cross-grade grouping should not involve more than two grades.
 - Low-performing students should be in smaller groups that are seated closest to the teacher.
 - Children should be placed in groups that are functioning at their independent reading level.
 - Formal regrouping should occur at least 3 times during the year: after the first week, three months, and five months. If obviously inappropriate regrouping should be done immediately.
 - Regrouping should be done in consultation with the contractors.

III. STAFF DEVELOPMENT

- Initial Training
- All staff should participate in a pre-service (four six-hour days) training in Direct Instruction.
 - All teachers should “Check out” on the subject that they teach. This means they should be able to identify the types of mistakes a student makes and make the appropriate correction.
 - During the pre-service, teachers should have practiced at least the first 30 lessons of the DI subject(s) they teach.
 - Teachers who are already good DI teachers should not be required to go through pre-service training, but they should check out.
 - In the first two months new DI teachers and teachers having difficulties with DI should have 30–40 minutes of in-class help every week.
- Professional Development
- All teachers should receive 40 hours of in-service professional development on Direct Instruction.
 - During in-service, teachers should practice lessons and focus on current common problems.
 - In-service should be appropriate to the grade level being taught.
 - All teachers of DI at the same grade level should participate in in-service at the same time.
 - At the beginning of the year, in-service should be held twice weekly.
 - In-service should be conducted by the external trainer, DI facilitator, or a good teacher.

IV. GOVERNANCE STRUCTURE AND PRACTICES

- An internal coach should be designated to assist the external trainer in pre-service training and in-service staff development.

V. ACCOUNTABILITY

- Assessment of Students
- State test preparation should not affect the daily schedule for teaching DI and should be limited to the two months prior to taking the test.
 - State test scores should be reported according to the length of time the student has been in the DI sequence. Only students who begin DI in K and remain in DI measure the full potential of DI.
 - Direct Instruction in-program assessments should be administered approximately every 10th lesson.
 - The external contractor and principal should be given the results of in-program assessments promptly.
 - Teachers should maintain a daily record of lessons presented and mastered (i.e., 90% of students mastered the day's lesson[s]).
 - Progress (scores and number of lessons mastered) should be reported weekly to principal and external contractor.
 - If students are appropriately grouped, but do not progress, teaching should be addressed.
 - The external contractor and on-site coordinator or principal should hold weekly conference calls about problems with students' progress, solutions to solve problems, and methods to check up on solutions.

- Schoolwide evaluation should have three components: student performance on standardized achievement tests for grades K–3, comparison of performance pre- and post-DI implementation or comparison of performance with comparable school(s) without DI, and information about how well DI is implemented.
- Feedback on Instruction and Implementation
- External contractor should assess level of implementation using in-program test scores, judgment about classroom-level implementation, and the number of lessons mastered.
 - Teachers should be observed in the classroom by the external trainer or, under his /her guidance, by experienced DI teachers, the principal, and/or facilitator.
 - The feedback to teachers should be immediate.
 - The coaching should include future plans for solving problems. If 15 or more classes are implementing DI, a full-time facilitator or coordinator should monitor records, identify problems, problem-solve, intervene, and communicate with the external contractor.

VI. PARENTAL INVOLVEMENT

- Parents should be given the *Parent and Child Home Practice Guide*.

VII. RESOURCE REQUIREMENTS

- First-year cost for professional development, staff release time, materials, and new staff should be about \$244,000 for a school with 500 students and 20–25 teachers. If school provides a facilitator to do in-class observations and in-service activities, the cost is about \$194,000.
- In subsequent years, the cost is about \$65,000 plus cost of faculty time devoted to training and staff time for submitting data on student progress.
- Post-implementation costs include time to train an in-staff facilitator to take on the trainer role—reviewing records, training and coaching new staff.
- Teachers should not have to spend out-of-pocket for activities related to Direct Instruction.

VIII. MODEL DEVELOPER SUPPORT

- The ratio of external contractors to teachers should be 20 teachers to 1 contractor for the pre-service.
- In the first few months of the school year, the external contractor should be on-site one week a month for every 20 teachers.
- For every 20 teachers, an external contractor should provide 30–50 days’ time monitoring classes.
- External contractor should help school find funds to finance implementation of DI.
- An external contractor should direct pre-service training (one for every 20 teachers) and in-service staff development, monitor records for problems, propose solutions, and observe classrooms.

IX. SUPPORT

- Support for DI should begin with the district.
- Eighty% of teachers must agree to follow the specifications of the program and discontinue programs that conflict with DI.

SUCCESS FOR ALL

I. CURRICULUM

- | | |
|----------------------|---|
| Content | <ol style="list-style-type: none"> 1. School should at least be using SFA reading program. 2. All grades K–5 or 6 should be using SFA. 3. At least 90 minutes/day should be devoted to SFA reading curriculum. 4. All teachers should have implemented the two-week Getting Along Together lessons. 5. Teachers should be using SFA lesson plan pacing guide for reading and should be keeping up with the pace. |
| Supporting Materials | <ol style="list-style-type: none"> 1. SFA materials (teacher’s manuals for each subject taught: Early Learning, Reading Roots, Reading Wings) should be easily accessible to all teachers — i.e., they should have a copy. |

II. INSTRUCTION

- | | |
|------------------------|---|
| Methods of Instruction | <ol style="list-style-type: none"> 1. All certified staff in the building should teach a reading class. 2. There should be at least one certified tutor in school. Certified staff should provide supervision of assistants and volunteers. 3. 30% or more 1st graders should be tutored regularly. 4. 1st graders are given tutoring priority. 5. Tutoring sessions should be at least 20 minutes/day and mirror class content. 6. Teachers should communicate with reading tutors regularly and communication should be well documented. 7. Students should read at home for 20 minutes each night. Most students (80%) should return their home reading forms weekly. 8. Students should often work collaboratively (emphasis is placed on individual accountability, common goals, and recognition of group success). 9. All or almost all special education students should be using SFA curriculum. Teachers can make adaptations where necessary. |
| Student Groupings | <ol style="list-style-type: none"> 1. Class size should be small (e.g., 15 for Roots classes) 2. Special education students should be mainstreamed to the greatest extent possible. Special ed teachers should work closely with regular teachers. 3. Groups containing students who are reading below the grade level should be small and briskly paced. Struggling students should be distributed evenly among the classes of the same level, to the degree possible. 4. Students should be grouped homogeneously by reading level for reading class. They should be placed in an instructional level that is higher than their independent reading level. 5. Older Roots readers should be placed in fast-paced groups. If multiple-level groups exist, struggling students should be distributed evenly among the groups and groups should be small. 6. Teachers should group students into teams of 4. 7. Assessments should be used to regroup reading classes to maintain the homogeneity of the class by students’ reading level, to assign students to tutoring, and to address problems interfering with students’ ability to learn. |

III. STAFF DEVELOPMENT

1. Principal should have participated in SFA initial training — given by SFA staff (one week long).
 2. Teachers should have participated in SFA initial training (teachers are introduced to the program; they spend three days learning how the reading program works and how to instruct students using the reading program; they also are trained in cooperative learning, getting along together strategies, and family support. Given by SFA staff (one week long).
 3. New teachers should be trained by facilitator or may be sent to new SFA schools to receive training.
 4. There also are a couple days of training for family support team members and tutors (also given by SFA staff).
- Professional Development
1. Principal should have attended SFA annual conference with facilitator if possible (it's recommended). There are conferences for new SFA schools and "experienced" SFA schools. Professional development seminars in SFA program are provided.
 2. Amount of professional development depends on the size of the school. For instance, a school with 500 students should have received 26 hours of initial training (per teacher).
 3. Teachers should regularly work with the school's facilitator to solve problems, identify ongoing training needs, or receive mini-trainings.
 4. Staff development: At least six staff development days needed during first year, and time for bimonthly grade-level team meetings and other staff development opportunities.

IV. GOVERNANCE STRUCTURE AND PRACTICES

1. Schools should have a staff support team — frequency of meetings can vary. Also, teachers should support one another through the training and implementation process in coaching partnerships, grade-level teams, and other staff team configurations.
2. Teachers from each component (e.g., early learning) should attend at least one component meeting per month.
3. Principal should meet with the facilitator at least weekly.
4. Component meetings should be held for early learning, Roots, Wings, tutoring every two weeks (all of the components of SFA). The purpose of the meetings is to set goals for student achievement, discuss problems and find solutions, and review achievement data.
5. SFA component meetings should occur regularly every two weeks. Agenda should be clear, focus should be on problem solving, tone should be positive and productive. Achievement should be reviewed regularly.
6. School should have a person on staff who acts as a full-time facilitator for SFA.
7. School's facilitator should regularly work with teachers to implement the reading program; coordinate SFA assessments; assist the family support team; facilitate staff support teams; plan and implement staff development.

V. ACCOUNTABILITY

- | | |
|--|---|
| Assessment of Students | <ol style="list-style-type: none"> 1. Assessments should be completed regularly, as planned, every 6–9 weeks (usually every 8 weeks). 2. The principal or facilitator should review with teachers their student assessment results after each assessment and should set goals for individual student achievement. |
| Feedback on Instruction and Implementation | <ol style="list-style-type: none"> 1. SFA staff visit schools to assess model implementation 3–4 times in first year, 2–3 times second year, 2 times third year, and 1–2 times fourth year. 2. SFA facilitator should spend time daily in reading classrooms making observations, modeling part of curriculum, etc. 3. Teachers should work with facilitator to solve problems, identify ongoing training needs, and receive mini-trainings. |

VI. PARENTAL INVOLVEMENT

1. School should have a family support team. Should include principal, facilitator, and staff and should meet weekly.
2. School should be using the SFA attendance plan: includes having an attendance monitor who calls parents immediately when child is absent and documents all absences; intervenes when children are chronically absent or tardy (by contacting or visiting families, giving families wake-up calls, escorting parents to school, monitoring local convenience stores to make sure students aren't skipping school).
3. School should work to increase parental involvement with: family support team visits to the homes of first graders to explain SFA; Raising Readers workshops for parents to familiarize them in reading program and show them ways to support the program at home; volunteer listeners, which are parents who volunteer to listen to children read at school; parent's club, which is an informal meeting of parents intended to help build parent support for the school; site-based management teams, which encourage parents to be involved in developing the SFA program and help develop "ownership" — the board meets 4–6 times/year and evaluates school climate and advises on general direction and goals of the program.
4. Students should be required to bring in a form signed by their parents every day confirming that they read for at least 20 minutes.

VII. RESOURCE REQUIREMENTS

1. Tutoring: For a school with 75% or more Title I students, tutors, usually from existing school personnel, must be provided (see above for tutoring expectations).
2. Facilitator: A full-time facilitator, typically from existing school personnel, must be supported.
3. Family Support Team: Schools with under 95% attendance must implement an attendance program, usually with a half-time attendance monitor, and additional staff, including social workers or counselors, are recommended for this team.
4. Other: A full-day kindergarten and/or half-day pre-kindergarten is desirable, and use of curricula, scheduling adjustments, students regrouped across grade lines for reading, and additional school and classroom library materials.

VIII. MODEL DEVELOPER SUPPORT

1. Model developer staff should have visited school for 12 person days in first year (two people at the school for two days three times a year). Diminishes after that: second year 2–3 times, third year 2 times, and fourth year 1–2 times. The purpose of the visit is to assess the model implementation (observe teachers, students, etc.).

IX. SUPPORT

Requirements for Becoming Official At least 80% of teachers should have voted to adopt SFA (only teachers who were there during adoption year).

Number of Schools with Longitudinal Data, by Years of Implementation

Table C.1

Model	Three Consecutive Years		Model	Two Consecutive Years	
	Years of Implementation	n		Years of Implementation	n
Accelerated Schools	1 & 2 & 3	5	Accelerated Schools	1 & 2	1
Total N = 6	3 & 4 & 5	1	Total N = 10	2 & 3	3
				3 & 4	2
				5 & 6	1
				Missing	3
Core Knowledge	1 & 2 & 3	1	Core Knowledge	1 & 2	1
Total N = 4	3 & 4 & 5	2	Total N = 12	5 & 6	2
	9 & 10 & 11	1		6 & 7	2
				7 & 8	2
				8 & 9	1
				12 & 13	1
				13 & 14	1
				Missing	2
Direct Instruction	1 & 2 & 3	1	Direct Instruction	1 & 2	4
Total N = 23	2 & 3 & 4	2	Total N = 24	2 & 3	1
	3 & 4 & 5	4		3 & 4	2
	4 & 5 & 6	6		4 & 5	1
	5 & 6 & 7	1		5 & 6	3
	7 & 8 & 9	2		6 & 7	1

Model	Three Consecutive Years		Model	Two Consecutive Years	
	Years of Implementation	n		Years of Implementation	n
	8 & 9 & 10	1		7 & 8	2
	Missing	6		Missing	10
Success for All	1 & 2 & 3	2	Success for All	1 & 2	3
Total N = 26	3 & 4 & 5	4	Total N = 18	2 & 3	1
	4 & 5 & 6	2		4 & 5	1
	5 & 6 & 7	3		5 & 6	4
	6 & 7 & 8	11		6 & 7	2
	7 & 8 & 9	2		7 & 8	3
	8 & 9 & 10	2		10 & 11	1
				Missing	3

Principal and Teacher Questionnaires

For the most part, the principal and teacher surveys included the same set of questions regardless of the model. Only a few questions were unique to each model and therefore were different for each model. These unique model-specific questions were not included in the non-model school questionnaires. This Appendix contains copies of the 2004 principal questionnaire for DI and the 2004 teacher questionnaire for SFA.

COMPREHENSIVE SCHOOL REFORM STUDY

PRINCIPAL SURVEY

Completion of this questionnaire is voluntary. You may choose to decline to answer any question. All responses to this survey will be strictly confidential. Individual respondents will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer his/her identity.

RAND Santa Monica, CA	University of Washington Seattle, WA
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A. School Characteristics

1. Please write today's date here: ____/____/____

2. How many students were enrolled in your school on January 31, 2004? Students

3. How many weeks constitute a marking period in your school? Weeks

4. How many regular classroom teachers teach in your school? Teachers

5. **FOR THIS SCHOOL YEAR**, how many teachers: Write '0' if none.

a. Are new to your school (either newly hired or transferred in) Teachers

b. Left your school (transferred out, retired, or were terminated)..... Teachers

6. How many students are repeating a grade in each of the following grades this school year?

Grade	Number of Students Repeating each Grade Write '0' if none.
K	<input type="text"/> <input type="text"/>
1	<input type="text"/> <input type="text"/>
2	<input type="text"/> <input type="text"/>
3	<input type="text"/> <input type="text"/>
4	<input type="text"/> <input type="text"/>
5	<input type="text"/> <input type="text"/>

7. **AFTER THE SCHOOL YEAR HAD BEGUN**, how many students: Write '0' if none.

a. Transferred INTO your school Students

b. Transferred OUT OF your school Students

8. How many students have been disciplined in the following ways this school year? (**WRITE IN THE NUMBER OF STUDENTS, NOT THE NUMBER OF INCIDENTS.**)

a. Referred beyond classroom (e.g., sent to the principal's office)..... Students

b. Suspended IN school Students

c. Suspended OUT of school Students

B. School Practices & Work Environment

9. **IN ADDITION TO REGULAR CLASSROOM TEACHERS**, do any other staff in your school teach reading? (For example, specialist teachers such as art, music, or gym teachers.)

- No → Skip to Question 11.
- Yes →

10. (If yes) What percentage of these additional reading teachers have standard state teaching certification or licensure in any subject? (Do not include teachers with emergency certification or those working toward certification.)

Check only one.

- Over 90% of the additional reading teachers are certified.
- 75-90% of the additional reading teachers are certified.
- Less than 75% of the additional reading teachers are certified.

11. How many **HOURS PER WEEK** do full-time teachers have for:

Write '0' if none.

- a. Individual planning time

--	--

 Hours per week
- b. Common planning time

--	--

 Hours per week

12. **IN YOUR SCHOOL**, is reading scheduled every day?

- No
- Yes

13. Do you schedule reading for all classes at the same time?

- No
- Yes

14. Are students assigned to any of the following classes based upon their **CURRENT LEVEL OF ACHIEVEMENT** (as opposed to by age alone)? (Circle a number in each row.)

	NO	YES
a. Reading classes	0	1
b. Math classes.....	0	1

15. **THIS SCHOOL YEAR**, what is your school's average daily attendance rate (ADA) for:

- a. Students.....

--	--	--	--

 %
- b. Teachers.....

--	--	--	--

 %

16. Please give your BEST ESTIMATE of the percentage of parents (of students in your school) who regularly do the following THIS SCHOOL YEAR.

Write '0' if none.

- a. Volunteer in classrooms.....

--	--	--

 %
- b. Attend special events.....

--	--	--

 %
- c. Attend parent education workshops.....

--	--	--

 %
- d. Attend school committees or working groups

--	--	--

 %

17. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	▼	▼	▼	▼	▼
a. The state and/or district policies and regulations impede this school's effort to improve student performance	1	2	3	4	5
b. Lack of educational support in the home hinders our efforts to improve student performance.....	1	2	3	4	5
c. The local union requirements hinder our efforts to improve student performance	1	2	3	4	5

18. Other than the state standardized test (FCAT in Florida or TEKS in Texas), how frequently are the students in your school evaluated using criterion-referenced, norm-referenced, or other tests designed to assess student performance in an entire grade in the following subjects? (Circle a number in each row.)

	Never	About once a year	About once every other marking period	About once a marking period	Multiple times a marking period
	▼	▼	▼	▼	▼
a. Reading	1	2	3	4	5
b. Math.....	1	2	3	4	5

C. School Governance

19. THIS SCHOOL YEAR, how frequently does your school steering committee meet? (A school steering committee is a group that makes decisions or recommendations for the school.)

Check only one.

- This school does not have a steering committee. → Skip to Question 21.
- About once a year
- About every marking period
- About monthly
- About weekly

20. How often do the following participate on your school steering committee? (Circle a number in each row.)

	Never	Rarely	Sometimes	Always
a. District representatives.....	1	2	3	4
b. Parents.....	1	2	3	4
c. Community members other than parents of children at this school.....	1	2	3	4
d. Students.....	1	2	3	4

21. How many working groups does your school have? Working groups focus on specific school-wide goals such as curriculum or instruction throughout the year.

Check only one.

- None → Skip to Question 23, page 5.
- 1-2
- 3-4
- 5 or more

22. How often do you participate in the following working groups? If you do not have such a working group, circle N/A. (Circle a number in each row.)

	Never	Less than monthly	About monthly	About bi-weekly	About weekly	N/A
a. Parental involvement.....	1	2	3	4	5	6
b. Curriculum and instruction.....	1	2	3	4	5	6
c. Discipline and school safety.....	1	2	3	4	5	6
d. Budgetary issues.....	1	2	3	4	5	6
e. Other (please specify): _____	1	2	3	4	5	6

23. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Whenever I can, I rely on a consensus decision-making process in my school.....	1	2	3	4	5
b. Most of my time is used on administrative matters	1	2	3	4	5

24. Please indicate how much influence YOUR SCHOOL has over the following. (Circle a number in each row.)

	No influence				Complete control
a. Developing goals for the school	1	2	3	4	5
b. Setting performance standards for students in this school.....	1	2	3	4	5
c. Adjusting the curriculum.....	1	2	3	4	5
d. Deciding how the school budget will be spent	1	2	3	4	5
e. Choosing improvement programs....	1	2	3	4	5

D. School Improvement Activities

25. THIS SCHOOL YEAR which of the following school-wide improvement programs designed to improve student achievement is your school using?

Check all that apply.

- N/A (This school is not using any school-wide improvement programs.) → Skip to Question 40, page 8.
- Accelerated Schools
- America's Choice
- AVID
- Coalition of Essential Schools
- Co-nect
- Core Knowledge
- Direct Instruction
- HOSTS
- Lightspan
- Microsociety
- Reading Recovery
- Success for All
- Other(s) (please specify): _____

26. Does your school have a **STAFF MEMBER** whose **FORMAL RESPONSIBILITIES** include coordinating or facilitating the implementation of school-wide improvement programs and activities?

No → Skip to Question 31.

Yes ↓

27. (If yes) What is the staff member's official title? _____

28. What is the staff member's name? _____

29. Please indicate the time allocated to this function in terms of full time equivalent (FTE), such as .40. _____

Write '0' if none.

30. How many times have you met with this staff member this school year? _____ Number of times

31. This school year, does your school have any **EXTERNAL CONSULTANTS** (someone **NOT** on the school staff) who visits the school to assist in implementing school-wide improvement programs and activities?

No → Skip to Question 38, page 7.

Yes ↓

32. (If yes) With which organization(s) is(are) the external consultant(s) affiliated?

33. Have you communicated with the external consultant(s) this school year?

No → Skip to Question 36, page 7.

Yes ↓

34. How many times have you met face-to-face with the external consultant(s) this school year?..... Write '0' if none
_____ Number of times

35. How many times have you communicated (not face-to-face) with the external consultant(s) this school year? Write '0' if none
_____ Number of times

36. Has/Have the external consultant(s) helped you in any of the following ways this school year? (Circle a number in each row.)

<i>Has/Have the external consultant(s) ...</i>	NO ▼	YES ▼
a. helped you with interpreting student assessment data?.....	0	1
b. assessed the progress you were making implementing your school-wide improvement program?.....	0	1
c. provided on-site training to teachers?.....	0	1
d. observed teachers in classrooms?	0	1
e. helped align your school-wide improvement program with the state standards?	0	1

37. How many FULL DAYS this school year did the external consultant(s) visit your school to assess progress or assist you and the staff? Write '0' if none. Full days

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38. THIS SCHOOL YEAR, has your school district supported your school's implementation of school-wide improvement programs or activities in the following ways? (Circle a number in each row.)

<i>Has your district...</i>	NO ▼	YES ▼
a. conducted/assisted with a needs assessment related to a school-wide improvement program?	0	1
b. provided or arranged for professional development pertaining to a school-wide improvement program?	0	1
c. provided technical assistance such as helping to align a school-wide improvement program with district requirements or monitoring its implementation?	0	1
d. had a district staff member participate in training on school-wide improvement programs?	0	1
e. had a district staff member attend school meetings related to school-wide improvement programs?	0	1
f. granted in-service days or release time to teachers to spend on school-wide improvement program activities?	0	1

39. Keeping in mind all the ways a district can support a school, please indicate the extent to which you believe your district has supported your school's implementation of school-wide programs or activities this school year.

Check only one.

The district has provided...

- No support at all
- Some support
- All the support the school needs

40. THIS SCHOOL YEAR, is your school using Direct Instruction in one or more grades as one of your school-wide improvement programs?

- No → Skip to Question 50, page 11.
- Yes ↓

41. Write in the year each grade began using Direct Instruction in reading and math. If a grade never implemented Direct Instruction in either of the subjects, circle N/A.

Grade	Year Started Using DI in Reading		Year Started Using DI in Math	
K	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A
1	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A
2	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A
3	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A
4	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A
5	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	N/A

42. In addition to adopting Direct Instruction, what other programs or activities have you implemented to complement it?

1. _____
2. _____
3. _____
4. _____

43. During THIS SCHOOL YEAR, including the summer, in how many hours of professional development directly related to Direct Instruction have you participated? Write '0' if none.

Hours

44. Has your school ever received Federal Comprehensive School Reform Demonstration Project funds?

- No → Skip to Question 46.
- Yes →

45. (If yes) For which school year did you begin receiving CSRD funds?.....

--	--	--	--

 School year

46. THIS SCHOOL YEAR, how much money from the following sources is being used directly to implement Direct Instruction? (If you do not know the exact dollar amount, please offer your best estimate.)

Write '0' if none.

- a. Federal CSRD funds..... \$ _____
- b. Title I funds \$ _____
- c. Private grants or donations to the school..... \$ _____
- d. Funds from school-based organizations \$ _____
- e. Other (please specify): _____ \$ _____

47. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	▼	▼	▼	▼	▼
a. Direct Instruction staff provide adequate support to the school	1	2	3	4	5
b. Direct Instruction provides the type of reform that helps students in this school achieve at higher levels	1	2	3	4	5
c. There are insufficient funds to support the full implementation of Direct Instruction.....	1	2	3	4	5
d. Most teachers in my school are fully committed to using Direct Instruction	1	2	3	4	5
e. Most parents of the children in this school are supportive of the Direct Instruction program	1	2	3	4	5

48. Please indicate whether the following statements about Direct Instruction are true or false. (Circle a number in each row.)

	FALSE ▼	TRUE ▼
a. Students should be grouped by the same skill level for reading groups.....	0	1
b. Classroom schedules should be designed so that students may be grouped for reading across classes	0	1
c. Formats should be repeated until students respond with about 70 percent accuracy	0	1
d. Data from mastery tests should be discussed with the principal and designated coach every six weeks.....	0	1
e. Reading groups that are not reaching their goals should have an extra reading lesson each week.....	0	1

49. Do you plan to continue to use Direct Instruction next year?

Check only one.

- No
- Yes
- Unsure

Please Skip to Question 52, page 11.

50. Has your school ever used Direct Instruction?

No → Skip to Question 52.

Yes ↓

51. (If yes) Please indicate whether any of the following are reasons your school is no longer using Direct Instruction. (Circle a number in each row.)

	NO ▼	YES ▼
a. The school could not secure enough funding to support Direct Instruction this year.	0	1
b. Direct Instruction did not lead to improvements in student achievement.	0	1
c. The school district did not support this school's implementation of Direct Instruction.	0	1
d. District regulations, policies, or programs conflicted with Direct Instruction.	0	1
e. Direct Instruction did not fit with the state standards.	0	1
f. Teachers in this school did not support Direct Instruction.	0	1
g. Parents of students in this school did not support Direct Instruction.	0	1
h. Direct Instruction did not provide enough support and assistance in implementation.	0	1
i. The school chose to adopt a different reform program.	0	1
j. Other (please specify): _____ _____	0	1

F. Your Background and Experience

52. Are you male or female?

Male

Female

53. With which racial and/or ethnic group(s) do you identify?

Check all that apply.

Asian or Pacific Islander

American Indian or Alaska Native

Black or African American

Hispanic

White

Other

54. What is the HIGHEST degree you hold?

Check only one.

- I do not have a degree
- High school degree / GED
- Associate's Degree
- Bachelor's Degree (B.A., B.S., B.E., etc.)
- Master's Degree (M.A., M.Ed., etc.)
- Education Specialist or professional diploma (at least one year beyond Master's)
- Doctorate or first professional degree (Ph.D., Ed.D., etc.)

55. Including this year (2003-2004), how many years have you been a principal:

- a. at ANY school, INCLUDING this one:

--	--

 Years
- b. at THIS SCHOOL:

--	--

 Years

56. Over the past five years, how many principals, INCLUDING YOURSELF, has this school had? (Do not include assistant principals.)

--	--

 Principals

57. Prior to becoming a principal, did you hold any of the following positions? (Circle a number in each row.)

	NO	YES
a. Teacher.....	0	1
b. Administrative position in a school (e.g., vice principal).....	0	1
c. Administrative position in a district or state office	0	1
d. Other (please specify): _____	0	1

**Thank you for completing this survey.
Please return it in the enclosed envelope to:**

**Lauren Cramer
324 Parrington Hall
Box 353055
The University of Washington
Seattle, WA 98195-3055**

COMPREHENSIVE SCHOOL REFORM STUDY

TEACHER SURVEY

Completion of this questionnaire is voluntary. You may choose to decline to answer any question. All responses to this survey will be strictly confidential. Individual respondents will never be identified by name or any other manner that could allow another researcher, government official, or member of the public to infer his/her identity.

RAND Santa Monica, CA	University of Washington Seattle, WA
--	---

1. Please write today's date here: ____/____/____

2. This school year, are you a **REGULAR FULL-TIME CLASSROOM TEACHER** who teaches **READING** at least part of the day?

- No → If you are **NOT** a **REGULAR, FULL-TIME CLASSROOM TEACHER** who teaches **READING** at least part of the day, do **NOT** complete this survey. Please return the survey in the enclosed envelope.
- Yes → Continue to Question 3.

3. Which grade or grades are you teaching this school year?

Check all that apply.

- Kindergarten
- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th-12th grades → If you teach **ONLY** 6th-12th grades, do **NOT** complete this survey. Please return the survey in the enclosed envelope.

A. Curriculum & Instruction

4. What is the total number of students enrolled in your regular homeroom class this school year? Students

5. How many **HOURS** and **MINUTES** of class time do your students receive in a typical day? (Do not include break time.) : Hours & minutes of class time
Write '0' if none.

6. How many **MINUTES** of instruction in the following subjects do your students receive in a typical day? (Do not include break time.)

	Minutes of Instruction
	Write '0' if none.
a. Reading.....	<input type="text"/> <input type="text"/> <input type="text"/>
b. Math.....	<input type="text"/> <input type="text"/> <input type="text"/>
c. Science	<input type="text"/> <input type="text"/> <input type="text"/>
d. Social Studies	<input type="text"/> <input type="text"/> <input type="text"/>

7. **This school year, do you use a year-long plan, pacing guide, or other document to help you follow the curriculum?** (A year-long plan or pacing guide outlines the sequence of lessons or topics to be covered in class.)

No → Skip to Question 12.

Yes ↓

8. (If yes) **In planning your instructional time, how often do you consult the year-long plan/pacing guide?**

Check only one.

- Never
 About monthly
 About weekly
 About daily

9. **How well do you usually keep up with the suggestions in the year-long plan/pacing guide?**

Check only one.

- I rarely keep up with the pace
 I usually keep up with or move faster than the pace

10. **Is the year-long plan/pacing guide used to minimize overlap of curriculum topics across grades?**

- No
 Yes

11. **How many hours did you contribute to the development of the year-long plan/pacing guide in preparation for this school year?** Hours

Write '0' if none.

12. **Do you use an explicit word-for-word text or script for presenting READING lessons?**

No → Skip to Question 14.

Yes ↓

13. (If yes) **How closely do you follow this text?**

Check only one.

- I do not follow it very closely
 I follow it somewhat closely
 I usually follow it closely

14. **IN THE PAST WEEK, how many hours did you spend developing units and preparing lessons either individually or with other teachers?** Hours

Write '0' if none

15. Which best describes the students to whom you teach READING? (If you teach reading to more than one class or group of students per day, please refer to your first reading class or group of the day.)

The students to whom I teach reading...

Check only one.

- Are the same students I have the majority of the day (i.e., they are in my main, homeroom class)
- Are a different group of students (i.e., they come from other classrooms)

16. During READING instruction, which of the following approaches do you use the MAJORITY of the time? (If you teach reading to more than one class or group of students per day, please refer to your first reading class or group of the day.)

Check only one.

The majority of the time, I instruct the ENTIRE CLASS as one group.

OR

The majority of the time, I instruct SMALL GROUPS within my class.

If you checked "entire class," only complete parts a, b, and c of this question.

If you checked "small groups," only complete parts d, e, f, g, and h of this question.

a. What is the average number of students in your reading class?

d. What is the average number of students in your small groups?

b. Which of the following best describes the students in your reading class?

e. Which of the following best describes the students in your reading group?

Check only one.

Check only one.

- The students in my reading class are at about the SAME level of achievement.
- The students in my reading class are at MIXED levels of achievement.

- The students in my reading group are at about the SAME level of achievement.
- The students in my reading group are at MIXED levels of achievement.

c. How many MINUTES of READING instruction do these students receive FROM YOU in a typical day?

f. How many MINUTES of READING instruction do these students receive FROM YOU in a typical day?.....

Skip to Question 17, page 4.

g. Do you place the students with the LOWEST READING SKILLS in smaller reading groups than students with average or high reading skills?

- No → Skip to Question 17, page 4.
- Yes ↓

h. (If yes) How many students are in your lowest reading skills group?...

17. During a typical **READING** lesson, what percent of time do you use the following teaching strategies?

- Write '0' if none.
- a. Teach to the whole class

--	--	--

 %
- b. Teach to small groups of students.....

--	--	--

 %

18. Do you teach at an instructional level in **READING** that is lower, about the same, or higher than the independent reading level of most of your students?

Check only one.

- I teach at a **LOWER** instructional level than the independent reading level of most of my students.
- I teach at an instructional level that is **ABOUT THE SAME** as the independent reading level of most of my students.
- I teach at a **HIGHER** instructional level than the independent reading level of most of my students.

19. How often do you assign 20 minutes or more of **READING** homework? (Please refer to your first reading class or group of the day.)

Check only one.

- Never
- Less than once a week
- Once a week
- 2-4 times a week
- Every school day

20. Do you require parents of the students to whom you teach **READING** to sign their child's completed reading homework? (Please refer to your first reading class or group of the day.)

- No → Skip to Question 22.
- Yes ↓

21. (If yes) Approximately what percentage of your students return their signed homework to you in an average week?

--	--	--

 % of students

22. Do any of the students to whom you teach reading regularly receive supplemental tutoring or instruction in **READING** either during or after school? (Please refer to your first reading class or group of the day.)

- No → Skip to Question 26, page 5.
- Yes ↓

23. (If yes) How many of these students receive supplemental tutoring or instruction in **READING**?

--	--

 students

24. How frequently do these students receive supplemental tutoring or instruction in READING?

Check only one.

- Less than once a week
- Once a week
- 2-4 times a week
- Every school day

25. Do these students PRIMARILY receive one-on-one tutoring or group instruction?

Check only one.

- Primarily one-on-one
- Primarily group instruction

26. How frequently do your students work collaboratively in groups or pairs during READING instruction?

Check only one.

- Never
- Less than once a week
- Once a week
- 2-4 times a week
- Every school day

27. IN A TYPICAL WEEK in your classroom, what percentage of instructional time do you devote to the following? (Circle a number in each row.)

	0%	1-25%	26-50%	51-75%	76-100%
a. Thematic instruction (i.e., interdisciplinary instruction organized around the exploration of a broad subject)	1	2	3	4	5
b. Hands-on activities.....	1	2	3	4	5
c. Higher-order thinking skills.....	1	2	3	4	5
d. Students' individual exploration.....	1	2	3	4	5
e. Activities based on real-life situations or issues...	1	2	3	4	5
f. Activities that connect to students' unique background or interests.....	1	2	3	4	5

B. School Practices & Work Environment

28. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. All staff and administration have a strong sense of the school's purpose	1	2	3	4	5
b. The principal is responsive to my concerns.....	1	2	3	4	5
c. Teacher morale is low	1	2	3	4	5
d. Discipline is a problem in this school.....	1	2	3	4	5
e. All students in my class are capable of achieving at high standards.....	1	2	3	4	5
f. My skills and expertise as a professional are utilized to address school-wide issues	1	2	3	4	5
g. Teachers in this school emphasize immediate correction of student academic errors	1	2	3	4	5

29. How much influence do TEACHERS in your school have over each of the following areas? (Circle a number in each row.)

	No influence				A great deal of influence
a. Developing goals for the school.....	1	2	3	4	5
b. Adjusting the curriculum	1	2	3	4	5
c. Deciding how the school budget will be spent	1	2	3	4	5

30. This school year, how frequently do you FORMALLY MEET WITH OTHER TEACHERS to do the following? (Circle a number in each row.)

	Never	About Annually	About once a marking period	About monthly	About weekly
a. Assess school needs.....	1	2	3	4	5
b. Set school goals	1	2	3	4	5
c. Implement plans to meet school goals	1	2	3	4	5
d. Develop or revise curriculum	1	2	3	4	5
e. Develop or review student assessments	1	2	3	4	5
f. Discuss or practice instructional strategies....	1	2	3	4	5

31. How often do you participate in the following working groups? Working groups focus on specific school-wide goals such as curriculum or instruction throughout the year. If your school does not have such a working group, circle N/A. (Circle a number in each row.)

	Never ▼	Less than monthly ▼	About monthly ▼	About bi-weekly ▼	About weekly ▼	N/A ▼
a. Parental involvement	1	2	3	4	5	6
b. Curriculum and instruction	1	2	3	4	5	6
c. Discipline and school safety.....	1	2	3	4	5	6
d. Budgetary issues	1	2	3	4	5	6
e. Other (please specify): _____	1	2	3	4	5	6

32. How frequently do you receive FORMAL feedback or structured critiques on your teaching from the following? (Circle a number in each row.)

	Never ▼	About annually ▼	About once a marking period ▼	About monthly ▼	About weekly ▼
a. District staff.....	1	2	3	4	5
b. The school principal or vice principal.....	1	2	3	4	5
c. Someone <u>ON THE SCHOOL STAFF</u> other than the principal or vice principal	1	2	3	4	5
d. Someone contracted by the district or school who is <u>NOT A DISTRICT EMPLOYEE</u>	1	2	3	4	5
e. Parents	1	2	3	4	5

33. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree ▼	Disagree ▼	Neither agree nor disagree ▼	Agree ▼	Strongly agree ▼
a. Many special initiatives come and go in this school	1	2	3	4	5
b. Once we start a new initiative, we follow up to make sure it's working	1	2	3	4	5
c. We have so many different academic initiatives in this school that I can't keep track of them all	1	2	3	4	5
d. Curriculum, instruction, and learning materials are well-coordinated from one level to the next	1	2	3	4	5
e. There is consistency in curriculum, instruction, and learning materials among teachers in the same grade	1	2	3	4	5

34. Please identify the number of children in your class whose parents YOU'VE CONTACTED IN THE PAST MONTH about the following:

Write '0' if none.

- a. Their child's academic performance Number of children whose parents you've contacted
- b. Their child's behavior in school Number of children whose parents you've contacted

35. Please identify the number of children in your class whose parents have CONTACTED YOU IN THE PAST MONTH to discuss the following:

Write '0' if none.

- a. Their child's academic performance Number of children whose parents have contacted you
- b. A concern about discipline in the classroom Number of children whose parents have contacted you

36. Overall, in how many HOURS OF PROFESSIONAL DEVELOPMENT have you participated this school year (2003-2004), including last summer? Hours

Write '0' if none.

37. Overall, how many HOURS OF ONE-ON-ONE COACHING have you received this school year (2003-2004), including last summer?..... Hours

Write '0' if none.

C. Assessments, Standards, & Accountability

38. Please indicate how frequently you review your students' scores on criterion-referenced or norm-referenced tests with the following individuals. (Circle a number in each row.)

	Never ▼	After <u>SOME</u> assessments ▼	After <u>MOST</u> assessments ▼	After <u>ALL</u> assessments ▼
a. The school principal	1	2	3	4
b. A coach or facilitator <u>ON THE SCHOOL STAFF</u>	1	2	3	4
c. An <u>EXTERNAL</u> coach or consultant....	1	2	3	4
d. Other teachers, excluding coaches.....	1	2	3	4

39. Are criterion-referenced or other standardized test assessment data in READING used to assign or reassign students to READING CLASSES?

- No → Skip to Question 41.
- Yes ↓

40. (If yes) How frequently are students FORMALLY reassigned to READING CLASSES?

Check only one.

- Only once at the beginning of the year
- Less often than every 12 weeks
- Every 9-12 weeks
- Every 6-8 weeks
- More often than every 6 weeks

41. Are criterion-referenced or other standardized test assessment data in READING used to assign or reassign students to INSTRUCTIONAL GROUPS WITHIN READING CLASSES?

- No → Skip to Question 43, page 10.
- Yes ↓

42. (If yes) How frequently are students FORMALLY reassigned to GROUPS within reading classes?

Check only one.

- Only once at the beginning of the year
- Less often than every 12 weeks
- Every 9-12 weeks
- Every 6-8 weeks
- More often than every 6 weeks

43. How well aligned do you think the state standardized test (FCAT in Florida or TEKS in Texas) is with what you are teaching in the following subjects? (Circle a number in each row.)

	Poorly aligned	Somewhat aligned	Well aligned	Not applicable
a. Reading	▼ 1	▼ 2	▼ 3	▼ N/A
b. Math.....	1	2	3	N/A

44. **THIS SCHOOL YEAR**, approximately how many **WEEKS** did you spend preparing your students to take the state standardized test (FCAT in Florida or TEKS in Texas)? Weeks Write '0' if none.

45. **DURING THE WEEKS SPECIFIED IN QUESTION 42**, approximately how many **HOURS PER WEEK** did you spend preparing your students to take the state standardized test (FCAT in Florida or TEKS in Texas)? Hours per week Write '0' if none.

D. School Improvement Activities

46. **THIS SCHOOL YEAR**, have you interacted with a **STAFF MEMBER** from your school whose **FORMAL RESPONSIBILITIES** include coordinating or facilitating school-wide improvement programs and activities?

- No → Skip to Question 49.
- Yes ↓

47. (If yes) How many times have you met with this school staff member this school year? Number of times Write '0' if none.

48. Has this school staff member helped you in any of the following ways this school year? (Circle a number in each row.)

	NO	YES
Has the school staff coordinator/facilitator...	▼	▼
a. trained or coached you in using school-wide improvement programs or activities	0	1
b. coordinated or prepared your teaching materials for school-wide improvement programs or activities	0	1
c. answered your questions about school-wide improvement programs or activities	0	1
d. Other (please specify): _____	0	1

49. This school year, have you interacted with an **EXTERNAL CONSULTANT** to assist with the implementation of school-wide improvement programs and activities?

- No → Skip to Question 52, page 11.
- Yes ↓

50. (If yes) How many times have you met with the external consultant this school year? Number of times Write '0' if none.

51. Has the external consultant helped you in any of the following ways this school year?(Circle a number in each row.)

Has the external consultant...	NO ▼	YES ▼
a. trained or coached you in using school-wide improvement programs or activities	0	1
b. coordinated or prepared your teaching materials for school-wide improvement programs or activities	0	1
c. answered your questions about school-wide improvement programs or activities	0	1
d. Other (please specify): _____	0	1

52. THIS SCHOOL YEAR, is your school using Success for All in one or more grades as one of your school-wide improvement programs?

- No → Skip to Question 61, page 13.
- Yes →

53. THIS SCHOOL YEAR, are you using Success for All in your classroom?

- No → Skip to Question 61, page 13.
- Yes →

Continue with Question 54.

54. DURING THIS SCHOOL YEAR, including the summer, in how many hours of professional development directly related to Success for All have you participated? Write '0' if none. Hours

55. This school year, how often has the PRINCIPAL taken each of the following actions to assure that you follow the curriculum and instructional practices recommended by Success for All? (Circle a number in each row.)

	Never ▼	Once a year ▼	Every marking period ▼	About Monthly ▼	About Biweekly ▼	About Weekly ▼
a. Observed your classroom looking specifically at the implementation of Success for All	1	2	3	4	5	6
b. Reviewed your students' assessments with you to determine if you are following the recommendations of Success for All	1	2	3	4	5	6
c. Held meetings with you individually or with other teachers to discuss issues related to Success for All	1	2	3	4	5	6
d. Asked a model specialist (internal or external) to help you implement Success for All	1	2	3	4	5	6

11

Questions? Call 800-506-1321.

56. To what extent do you agree or disagree with the following statements? (Circle a number in each row.)

	Strongly disagree ▼	Disagree ▼	Neither agree nor disagree ▼	Agree ▼	Strongly agree ▼
a. The prescriptiveness of Success for All has made it difficult to use in my classroom	1	2	3	4	5
b. Success for All materials are easy to use...	1	2	3	4	5
c. I usually have enough time to plan and use the Success for All materials.....	1	2	3	4	5
d. The Success for All-related professional development or coaching I have received has helped me use the program	1	2	3	4	5
e. The principal is committed to using Success for All	1	2	3	4	5
f. Most teachers in my school are committed to using Success for All	1	2	3	4	5

57. How frequently do you do the following? (Circle a number in each row.)

	Never ▼	Less than once a week ▼	Once a week ▼	2-4 times a week ▼	Every school day ▼
a. Award team points to teams that effectively use the cooperative learning standards.....	1	2	3	4	5
b. Use Getting Along Together strategies in your classroom	1	2	3	4	5

58. What percent of the READING INSTRUCTION MATERIALS that you and your students use are produced by Success for All?

--	--	--	--

Write '0' if none. % of reading materials

59. Please indicate whether the following statements about Success for All are true or false. (Circle a number in each row.)

	FALSE ▼	TRUE ▼
a. During reading time, students should have time to take turns reading to each other	0	1
b. Struggling students should receive small group tutorials during or after class.....	0	1
c. Students should be formally assessed in reading every 12 weeks.....	0	1
d. Struggling students in reading, especially in lower grades, should be tutored at least once per week for twenty minutes.....	0	1
e. Children should work in pairs or teams to do projects relating to the current reading theme.....	0	1

60. If there were a vote today, would you vote to continue to use Success for All in your school next year?

Check only one.

- No
- Yes
- Unsure

E. Your Background & Experience

61. Are you male or female?

- Male
- Female

62. With which racial/ethnic group(s) do you identify?

Check all that apply.

- Asian or Pacific Islander
- American Indian or Alaska Native
- Black or African American
- Hispanic
- White
- Other

63. What is the HIGHEST degree you hold?

Check only one.

- I do not have a degree
- High school degree / GED
- Associate's Degree
- Bachelor's Degree (B.A., B.S., B.E., etc.)
- Master's Degree (M.A., M.A.T., M.Ed., etc.)
- Education Specialist or professional diploma (at least one year beyond Master's)
- Doctorate or first professional degree (Ph.D., Ed.D., etc.)

64. What type of teaching certificate do you hold?

Check all that apply.

- Regular or standard state certificate or advanced professional certificate
- National Board Certification
- Probationary certificate (the initial certificate issued after satisfying all requirements except the completion of probationary period)
- Provisional or other type given to persons who are still participating in what the state calls an "alternative certification program"
- Temporary certificate (requires some additional college coursework and/or student teaching before regular certification can be obtained)
- Emergency certificate or waiver (issued to persons with insufficient teacher preparation who must complete a regular certification program in order to continue teaching)

65. Including this year (2003-2004), how many years have you been a teacher:

- a. at ANY school INCLUDING this one:

--	--

 years
- b. at THIS SCHOOL:

--	--

 years

66. So far this school year, approximately how much out-of-pocket money have you spent for materials for your class? Write '0' if none.
 \$ _____ .00

**Thank you for completing this questionnaire.
Please return it in the enclosed envelope to:**

**Lauren Cramer
324 Parrington Hall
Box 353055
The University of Washington
Seattle, WA 98195-3055**

Imputation for Missing Data

In all three survey years, there is a subset of schools for which teacher responses were received but the principal did not respond; thus the teacher indicators are available for those schools but the principal indicators are not.

We consider the imputation of missing item data (i.e., missing responses to individual survey items from a school that did respond to the survey) for several reasons. When implementation indicators within a model component are aggregated into average implementation scores, the missing items need to be accounted for in order to keep the meaning of the component average consistent across schools. With analyses on the matched pairs of model and comparison schools, missing item data for a given model indicator will eliminate both the school with the missing item and that school's complement from analyses involving that indicator. Additionally, missing item data denigrates the statistical power available to detect significant correlations between model component averages and model support indicators.

To mitigate the denigration of statistical power, we consider the imputation of missing item data within individual model components. When a school presents responses to some but not all survey items in a given component, we use the following two-way random effects model to predict the missing observations:

$$Y_{ij} = \alpha_j + \beta_i + \varepsilon_{ij}$$

$$\alpha_j \sim \text{Normal}(\mu_j, \sigma_a^2)$$

$$\beta_i \sim \text{Normal}(0, \sigma_b^2)$$

$$\varepsilon_{ij} \sim \text{Normal}(0, \sigma_e^2)$$

Y_{ij} is the missing response to item j from school i . Here, α_j represents an effect attributable to item j , centered at μ_j , the mean of all responses to item j . That is offset by a school-level effect, β_i , and random noise ε_{ij} . The model asserts that school i 's response to item j will differ from the average response to item j by an amount comparable to school i 's deviation from the average item response values of the other items in the component observed for school i , and accounts for random error at the item, school, and observation levels (i.e., the relationship is not assumed to be deterministic).

This imputation approach does not address missing data from a school across an entire component or missing item data compiled from sources outside the survey. When we examine multivariate models of support factors that impact model imputation (Chapter Six and Appendix I), this leaves an unequal number of observations in the candidate independent variables to be included in a multivariate regression. This makes model comparison among candidate models challenging; to use only the complete observations common to all candidate models would reduce the number of observations used to fit the models, and thus the power to detect significant predictors; however, to use the complete observations available in fitting each model individually yields a set of models with differing degrees of freedom and making the usual statistics for model selection incomparable.

For the multivariate regression analyses, to ensure a dataset with an equal number of observations for all variables, we employed a multiple imputation approach. For a given dependent component, the set of candidate explanatory variables and the dependent component average are modeled jointly following approximately a Multivariate Normal distribution (e.g., Schafer, 1997). Based upon the distribution param-

eters, the missing item response values are imputed as random draws from this distribution. Essentially, this approach generates an imputed value for a missing observation of a given variable based upon the average value for that variable and its multiple correlation with all the other variables. Instead of generating just one random draw for each missing value, we generate a set of 20 imputed values for each one missing, in order to examine a range of possible imputed values. This produces 20 imputed versions of the dataset. The imputations are carried out using the “norm” package available for the R Project for Statistical Computing (<http://www.r-project.org/>). Multivariate models of interest are fit to each of the 20 versions of the 20 imputed datasets, and the results are pulled to generate overall estimates using the method of Rubin (1987).

References

- Rubin, D. B., *Multiple Imputation for Nonresponse in Surveys*, New York: John Wiley & Sons, Inc., 1987.
- Schafer, J. L., *Analysis of Incomplete Multivariate Data*, London: Chapman and Hall, 1997.

Implementation Standardized Scores, by Years of Implementation

This Appendix contains the standardized implementation scores by years schools have used the model for each core component of each model, as discussed in Chapter Four. Because the number of schools by each year (year 1, year 2, and so on) of implementation is too small for reliable statistical analysis, we grouped schools into three “age” categories: schools in years 1, 2, and 3 of implementation; schools in years 4, 5, and 6 of implementation; and schools in years 7 or more of implementation. Tables F.1 to F.4 contain the scores for Accelerated Schools, Core Knowledge, Direct Instruction, and Success for All.

Table F.1
Accelerated Schools: Implementation Standardized Scores by Age of Model Use

Accelerated Schools	Years 1-3		Years 4+	
	Mean score	Std error	Mean score	Std error
Curriculum Content				
Teachers teach at least 1.5 hours daily				
Teachers agree "reading curriculum is well aligned with state standards"	1.52	0.10	1.52	0.12
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.10	0.12	1.05	0.17
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.57	0.07	1.67	0.13
<i>Component Average</i>	<i>1.40</i>	<i>0.07</i>	<i>1.41</i>	<i>0.10</i>
Methods of Instruction				
Students work collaboratively in groups or pairs during reading instruction every school day	1.32	0.06	1.20	0.10
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.27	0.04	1.01	0.05
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.36	0.05	1.19	0.05
Teachers devote more than 75% of their instructional time on "students' individual exploration"	0.96	0.04	0.81	0.05
Teachers devote more than 75% of their instructional time on "activities based on real-life situations or issues"	1.19	0.05	1.03	0.05
Teachers devote more than 75% of their instructional time on "activities that connect students to their unique background and interests"	1.15	0.06	1.01	0.05
Teachers devote more than 75% of their instructional time on "thematic instruction"	1.04	0.06	0.95	0.10
Teachers agree "all students in their class can achieve high standards"	1.61	0.08	1.43	0.18

Table F.1—Continued

	Accelerated Schools		Years 1-3		Years 4+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers use the Inquiry Process to a great extent to make key decisions about student learning	1.32	0.09	0.86	0.20		
Teachers use Powerful Learning Framework to a great extent to inform lesson plans in all academic areas	1.41	0.08	0.78	0.13		
<i>Component Average</i>	<i>1.26</i>	<i>0.05</i>	<i>1.03</i>	<i>0.05</i>		
Governance						
Teachers agree “all staff and administration have a strong sense of school purpose”	1.77	0.07	1.50	0.19		
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.89	0.09	2.00	0.00		
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.42	0.05	1.53	0.07		
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum, allocating school budget”	1.30	0.04	1.33	0.09		
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.71	0.06	1.61	0.14		
School steering committee meets at least weekly	1.55	0.03	1.50	0.01		
Stakeholders always participate in school steering committee	1.07	0.14	1.10	0.20		
The school has 5 or more working groups	1.47	0.08	1.66	0.12		
The principal participates weekly in the curriculum and instruction working group	1.33	0.11	1.14	0.26		
Teachers participate weekly in working groups addressing curriculum	1.10	0.06	1.04	0.01		
Teachers participate weekly in working groups addressing parental involvement	0.50	0.04	0.53	0.01		
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.63	0.03	0.65	0.01		

Table F.1—Continued

Accelerated Schools	Years 1-3		Years 4+	
	Mean score	Std error	Mean score	Std error
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies and develop or revise curricula”	1.27	0.06	1.23	0.11
At least 80% of teachers work on a cadre	1.60	0.06	1.31	0.22
Cadre plans are “always brought through the steering committee and school as a whole for final decisions”	1.93	0.03	1.67	0.28
<i>Component Average</i>	<i>1.37</i>	<i>0.03</i>	<i>1.32</i>	<i>0.05</i>
Assessment of Students				
School assesses students on Reading multiple times per marking period	1.29	0.011	1.57	0.17
Parental Involvement				
Parents always participate on school steering committee	1.35	0.21	1.36	0.29
At least 30% of parents attend school committees or working groups	0.86	0.20	0.11	0.09
<i>Component Average</i>	<i>1.10</i>	<i>0.16</i>	<i>0.74</i>	<i>0.16</i>
Professional Development				
Principal received specified hours of CSRSM related professional development this year	1.24	0.18	0.35	0.19
Teachers received specified hours of CSRSM related professional development this year	1.03	0.13	0.35	0.19
<i>Component Average</i>	<i>1.14</i>	<i>0.14</i>	<i>0.35</i>	<i>0.18</i>
Resources				
Principal disagrees “school has insufficient funds to support full implementation of Model”	1.31	0.24	1.00	0.45
Model Developer Support				
School has external consultant who assists in implementing schoolwide improvement programs	1.37	0.14	1.10	0.20
CSRSM staff visited AS schools 36 days	0.37	0.13	0.40	0.25

Table F.1—Continued

	Accelerated Schools		Years 4+	
	Mean score	Std error	Mean score	Std error
Principal agrees “model staff provide adequate support to the school”	1.53	0.17	1.36	0.28
Principal met with external consultant 25 times this year	0.67	0.12	0.49	0.12
Teachers interact formally with external consultant for implementation of improvement programs	1.19	0.11	0.94	0.09
Teachers met with external consultant 6 times this year	0.61	0.14	0.38	0.13
<i>Component Average</i>	<i>0.96</i>	<i>0.11</i>	<i>0.78</i>	<i>0.14</i>
Internal Facilitator				
Staff member spends time coordinating schoolwide improvement programs as required by model	1.10	0.31	0.00	0.00
Principal met with staff member 41 times this year	0.82	0.25	0.00	0.00
Teacher met with facilitator 11 times this year	1.40	0.17	1.38	0.00
<i>Component Average</i>	<i>1.11</i>	<i>0.23</i>	<i>0.46</i>	<i>0.00</i>
School Support				
Principal agrees “most teachers are fully committed to using CSR model”	1.49	0.12	1.31	0.29
Principal agrees “most parents are supportive of CSR model”	1.69	0.09	1.57	0.18
Teachers strongly agree “principal is committed to using CSR model”	1.49	0.06	1.14	0.23
Teachers strongly agree “teachers are committed to using CSR model”	1.17	0.06	1.11	0.06
<i>Component Average</i>	<i>1.46</i>	<i>0.07</i>	<i>1.25</i>	<i>0.17</i>
District Support				
Principal disagrees “state and/or district policies and regulations impede school’s efforts to improve student performance”	1.35	0.21	2.00	0.00
District gives the school all the support it needs to implement schoolwide programs	1.24	0.06	1.18	0.20
<i>Component Average</i>	<i>1.30</i>	<i>0.13</i>	<i>1.59</i>	<i>0.10</i>

Table F.2
Core Knowledge: Implementation Standardized Scores by Age of Model Use

Core Knowledge	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Content						
Teachers agree "reading curriculum is well aligned with state standards"	1.56	0.19	1.27	0.15	1.51	0.09
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.44	0.13	1.46	0.15	1.53	0.13
Teachers use yearlong plan to minimize curriculum overlap	1.58	0.15	1.28	0.16	1.65	0.12
Teachers contribute to the development of the yearlong plan or pacing guide	1.18	0.26	0.99	0.14	1.21	0.14
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.68	0.09	1.64	0.11	1.80	0.08
CSRM is used for reading instruction at each grade level	1.84	0.12	2.00	0.00	1.91	0.07
CK history and geography curriculum is used in all grades	1.60	0.15	1.52	0.17	1.69	0.11
School provides teachers with at least 90 minutes per week for structured planning time	0.91	0.15	0.73	0.08	0.89	0.10
<i>Component Average</i>	<i>1.47</i>	<i>0.11</i>	<i>1.36</i>	<i>0.09</i>	<i>1.52</i>	<i>0.04</i>
Curriculum Supporting Materials						
School provided materials with "CK Sequence," "What Your X Graders Need to Know," "CK K-8 Guide," "Dictionary of Cultural Literacy"	1.17	0.17	0.92	0.19	1.46	0.14
Governance						
Teachers formally meet weekly to discuss instruction	1.36	0.10	1.39	0.09	1.53	0.08
Teachers formally meet weekly to assess "school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies and develop or revise curricula"	0.96	0.08	1.10	0.07	1.11	0.05
<i>Component Average</i>	<i>1.16</i>	<i>0.08</i>	<i>1.25</i>	<i>0.07</i>	<i>1.32</i>	<i>0.06</i>

Table F.2—Continued

Core Knowledge	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Assessment of Students						
School assesses students on reading multiple times per marking period	1.44	0.20	1.46	0.16	1.50	0.15
Parental Involvement						
At least 90% of parents attend special events	0.68	0.23	0.88	0.22	0.89	0.20
At least 20% of parents attend education workshops	1.24	0.32	0.81	0.20	1.10	0.20
At least 30% of parents volunteer	0.49	0.19	0.78	0.19	1.33	0.20
At least 30% of parents attend school committees or working groups	0.28	0.08	0.44	0.09	0.99	0.24
<i>Component Average</i>	<i>0.67</i>	<i>0.08</i>	<i>0.73</i>	<i>0.14</i>	<i>1.08</i>	<i>0.18</i>
Professional Development						
Principal received specified hours of CSRM-related professional development this year	0.71	0.36	0.65	0.21	0.68	0.21
Teachers received specified hours of CSRM-related professional development this year	0.54	0.26	0.45	0.12	0.473	0.16
<i>Component Average</i>	<i>0.63</i>	<i>0.30</i>	<i>0.55</i>	<i>0.12</i>	<i>0.70</i>	<i>0.12</i>
Feedback on Instruction						
Teachers receive weekly formal feedback on their teaching from principals	0.90	0.08	0.82	0.05	0.91	0.06
Teachers receive weekly formal feedback on their teaching from school staff	0.39	0.14	0.35	0.02	0.58	0.13
Teachers receive weekly formal feedback on their teaching from contractor	0.00	0.00	0.04	0.02	0.04	0.02
Teachers receive weekly formal feedback on their teaching from parents	0.48	0.16	0.51	0.08	0.69	0.13
Teachers receive weekly formal feedback on their teaching from district staff	0.18	0.09	0.18	0.08	0.24	0.05
<i>Component Average</i>	<i>0.39</i>	<i>0.06</i>	<i>0.38</i>	<i>0.03</i>	<i>0.49</i>	<i>0.05</i>

Table F.2—Continued

Core Knowledge	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Resources						
Principal disagrees “school has insufficient funds to support full implementation of model”	1.00	0.37	0.46	0.18	0.85	0.25
Model Developer Support						
School has external consultant who assists in implementing schoolwide improvement programs	1.51	0.19	1.09	0.18	0.91	0.20
CSRM staff visited CK schools 6 days	0.53	0.14	0.40	0.25	0.02	0.03
Principal agrees “model staff provide adequate support to the school”	1.30	0.24	0.85	0.19	1.14	0.22
Principal met with external consultant 5 times this year	0.68	0.06	0.48	0.06	0.53	0.14
Teachers interact formally with external consultant for implementation of improvement programs	0.26	0.08	0.54	0.10	0.60	0.12
Teachers met with external consultant at least once this year	0.81	0.25	0.68	0.09	0.68	0.15
<i>Component Average</i>	<i>0.83</i>	<i>0.12</i>	<i>0.61</i>	<i>0.05</i>	<i>0.69</i>	<i>0.09</i>
Internal Facilitator						
Staff member spends time coordinating schoolwide improvement programs as required by model	0.88	0.52	0.52	0.39	1.08	0.30
Principal met with staff member 50 times this year	0.69	0.47	0.09	0.08	0.62	0.21
Teacher met with facilitator 8 times this year	0.67	0.18	1.26	0.14	0.88	0.23
<i>Component Average</i>	<i>0.74</i>	<i>0.33</i>	<i>0.62</i>	<i>0.16</i>	<i>0.86</i>	<i>0.18</i>
School Support						
Principal agrees “most teachers are fully committed to using CSRM model”	0.99	0.38	0.77	0.21	1.62	0.14
Principal agrees “most parents are supportive of CSRM model”	1.44	0.29	1.07	0.20	1.71	0.13

Table F.2—Continued

Core Knowledge	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers strongly agree “principal is committed to using CSRM model”	1.34	0.21	1.12	0.09	1.49	0.12
Teachers strongly agree “teachers are committed to using CSRM model”	1.21	0.18	1.06	0.08	1.39	0.10
<i>Component Average</i>	<i>1.24</i>	<i>0.24</i>	<i>1.01</i>	<i>0.13</i>	<i>1.55</i>	<i>0.12</i>
District Support						
District gives the school all the support it needs to implement schoolwide programs	2.00	0.00	1.60	0.24	1.50	0.27

Table F.3
Direct Instruction: Implementation Standardized Scores by Age of Model Use

Direct Instruction	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Content						
Teachers teach at least 1.5 hours daily	1.97	0.01	2.00	0.00	1.92	0.06
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.63	0.08	1.65	0.08	1.71	0.09
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.34	0.10	1.30	0.10	1.47	0.17
Teachers consult the yearlong plan/pacing guide on a daily basis	1.18	0.07	1.10	0.08	1.08	0.09
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.55	0.09	1.64	0.09	1.34	0.18
<i>Component Average</i>	<i>1.53</i>	<i>0.05</i>	<i>1.54</i>	<i>0.05</i>	<i>1.50</i>	<i>0.03</i>
Methods on Instruction						
Teachers agree "teachers in the school emphasize immediate correction of student academic errors"	1.62	0.06	1.63	0.08	1.58	0.14
Teachers "usually" or "always" follow closely an explicit word-for-word text or script for presenting reading lessons	0.61	0.10	1.27	0.13	1.37	0.21
Students receive supplemental tutoring in reading	1.58	0.10	1.31	0.14	1.21	0.29
Tutored students receive tutoring every school day	1.20	0.08	0.98	0.12	0.76	0.22
55% of students are receiving tutoring	1.04	0.08	0.79	0.11	0.66	0.22
<i>Component Average</i>	<i>1.21</i>	<i>0.06</i>	<i>1.19</i>	<i>0.06</i>	<i>1.12</i>	<i>0.13</i>
Grouping of Students						
Students are assigned to reading classes based on current academic performance	1.47	0.17	1.53	0.18	1.63	0.28

Table F.3—Continued

Direct Instruction	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Students in reading classes or groups are at about the same reading skill level	1.24	0.12	1.42	0.17	1.47	0.20
Student tests are used to assign students to reading classes at least every 9–12 weeks	0.79	0.10	0.80	0.12	0.78	0.16
Student tests are used to assign students to reading groups at least every 9–12 weeks	1.05	0.11	0.66	0.11	0.80	0.21
Students with lowest reading skills are placed in smaller reading groups	0.97	0.12	0.81	0.14	0.89	0.30
Teachers teach reading to students in small groups most of the time	1.05	0.11	0.85	0.15	1.57	0.20
Reading groups have no more than 9 students	1.77	0.09	1.70	0.08	1.41	0.27
<i>Component Average</i>	<i>1.19</i>	<i>0.07</i>	<i>1.11</i>	<i>0.08</i>	<i>1.22</i>	<i>0.07</i>
Assessment of Students						
School assesses students on reading multiple times per marking period	1.50	0.07	1.47	0.11	1.39	0.26
Teachers review student scores with principal after all assessments	1.02	0.07	1.20	0.09	1.02	0.15
Teachers review student scores with school coach after all assessments	0.79	0.08	1.01	0.09	1.13	0.13
Teachers review student scores with external coach after all assessments	0.34	0.06	0.43	0.07	0.33	0.08
<i>Component Average</i>	<i>0.91</i>	<i>0.04</i>	<i>1.03</i>	<i>0.05</i>	<i>0.97</i>	<i>0.11</i>
Professional Development						
Principal received specified hours of CSRM-related professional development this year	0.58	0.14	0.81	0.16	0.75	0.27
Teachers received specified hours of CSRM-related professional development this year	0.39	0.08	0.51	0.07	0.51	0.09
<i>Component Average</i>	<i>0.49</i>	<i>0.08</i>	<i>0.66</i>	<i>0.09</i>	<i>0.63</i>	<i>0.13</i>

Table F.3—Continued

Direct Instruction	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Feedback on Instruction						
Teachers receive weekly formal feedback on their teaching from principals	0.90	0.06	1.01	0.08	1.01	0.10
Teachers receive weekly formal feedback on their teaching from school staff	0.53	0.07	0.71	0.09	0.74	0.19
Teachers receive weekly formal feedback on their teaching from contractor	0.13	0.04	0.26	0.07	0.34	0.06
Teachers receive weekly formal feedback on their teaching from district staff	0.31	0.06	0.48	0.09	0.38	0.10
<i>Component Average</i>	<i>0.47</i>	<i>0.04</i>	<i>0.62</i>	<i>0.06</i>	<i>0.62</i>	<i>0.10</i>
Resources						
Principal disagrees "school has insufficient funds to support full implementation of model"	1.56	0.15	1.05	0.20	0.83	0.40
Model Developer Support						
School has external consultant who assists in implementing schoolwide improvement programs	1.14	0.17	1.18	0.20	1.10	0.32
CSRM staff visited DI schools 30 days	0.48	0.14	0.40	0.13	0.40	0.27
Principal agrees "model staff provide adequate support to the school"	1.69	0.09	1.67	0.14	1.76	0.16
Principal met with external consultant 15 times this year	0.72	0.10	0.84	0.17	0.56	0.18
Teachers interact formally with external consultant for implementation of improvement programs	0.70	0.11	0.53	0.10	0.97	0.23
Teachers met with external consultant 2 times this year	0.79	0.12	0.69	0.14	1.25	0.30
<i>Component Average</i>	<i>0.92</i>	<i>0.08</i>	<i>0.88</i>	<i>0.09</i>	<i>1.01</i>	<i>0.17</i>

Table F.3—Continued

Direct Instruction	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Internal Facilitator						
Staff member spends time coordinating schoolwide improvement programs as required by model	0.63	0.18	0.71	0.20	0.16	0.16
Principal met with staff member 66 times this year	0.61	0.16	0.54	0.16	0.15	0.15
Teacher met with facilitator 7 times this year	0.86	0.14	0.75	0.17	1.00	0.30
<i>Component Average</i>	<i>0.70</i>	<i>0.12</i>	<i>0.67</i>	<i>0.13</i>	<i>0.44</i>	<i>0.16</i>
School Support						
Principal agrees “most teachers are fully committed to using CSRM model”	1.44	0.18	1.52	0.16	1.35	0.28
Principal agrees “most parents are supportive of CSRM model”	1.60	0.13	1.71	0.10	1.37	0.28
Teachers strongly agree “principal is committed to using CSRM model”	1.20	0.07	1.35	0.09	1.34	0.09
Teachers strongly agree “teachers are committed to using CSRM model”	1.35	0.16	1.19	0.20	1.33	0.42
<i>Component Average</i>	<i>1.40</i>	<i>0.07</i>	<i>1.52</i>	<i>0.09</i>	<i>1.39</i>	<i>0.16</i>
District Support						
Principal disagrees “state and/or district policies and regulations impede school’s efforts to improve student performance”	1.38	0.07	1.49	0.10	1.52	0.12
District gives the school all the support it needs to implement schoolwide programs	1.34	0.08	1.41	0.13	1.27	0.17
<i>Component Average</i>	<i>1.34</i>	<i>0.10</i>	<i>1.30</i>	<i>0.14</i>	<i>1.32</i>	<i>0.26</i>

Table F.4
Success for All: Implementation Standardized Scores by Age of Model Use

Success for All	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Content						
Teachers teach at least 1.5 hours daily	2.00	0.00	1.91	0.03	1.92	0.03
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.71	0.07	1.64	0.05	1.58	0.08
CSRM is used for reading instruction at each grade level	1.82	0.11	1.87	0.05	1.98	0.01
Teachers use Getting Along Together strategies in their classroom every school day	1.32	0.11	1.09	0.09	1.17	0.11
<i>Component Average</i>	<i>1.71</i>	<i>0.04</i>	<i>1.63</i>	<i>0.03</i>	<i>1.66</i>	<i>0.04</i>
Curriculum Supporting Materials						
100% of the reading materials teachers use are produced by model developer	1.19	0.16	1.12	0.10	1.28	0.11
School uses SFA reading materials for Spanish-dominant children	1.98	0.01	1.82	0.08	1.98	0.02
Most or all special education classes uses SFA	1.45	0.24	1.34	0.12	0.69	0.13
<i>Component Average</i>	<i>1.54</i>	<i>0.10</i>	<i>1.43</i>	<i>0.08</i>	<i>1.65</i>	<i>0.06</i>
Methods of Instruction						
At least 75% of other reading teachers are certified	1.74	0.17	1.34	0.14	1.76	0.12
Students work collaboratively in groups or pairs during reading instruction every school day	1.74	0.05	1.64	0.05	1.77	0.05
Teachers assign 20 minutes of reading homework every school day	1.74	0.08	1.69	0.06	1.79	0.04
Teachers teach at an instructional level that is higher than the level of most of the students	1.25	0.10	1.17	0.06	1.16	0.06
Students receive supplemental tutoring in reading	1.44	0.16	1.22	0.08	1.30	0.12

Table F.4—Continued

Success for All	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Tutored students receive tutoring every school day	1.03	0.13	0.88	0.06	0.94	0.10
Tutored students receive one-on-one tutoring	0.52	0.12	0.53	0.07	0.55	0.09
55% of students are receiving tutoring	0.84	0.11	0.60	0.05	0.77	0.10
At least 30% of first graders in the school are tutored at least weekly	1.64	0.10	1.48	0.09	1.64	0.08
Teachers award team points to teams that effectively use the cooperative learning standards every school day	1.05	0.13	1.17	0.10	1.31	0.11
<i>Component Average</i>	<i>1.30</i>	<i>0.05</i>	<i>1.17</i>	<i>0.03</i>	<i>1.30</i>	<i>0.05</i>
Grouping of Students						
Students are assigned to reading classes based on current academic performance	1.44	0.25	1.72	0.11	1.96	0.02
Students in reading classes or groups are at about the same reading skill level	1.00	0.17	1.49	0.08	1.63	0.08
Student tests are used to assign students to reading classes at least every 6–8 weeks	1.23	0.10	1.19	0.08	1.39	0.08
Reading groups have no more than 4 students for SFA and 9 students for DI	1.36	0.14	1.40	0.07	1.34	0.09
Classes have 20 or fewer students	1.42	0.10	1.47	0.06	1.62	0.08
<i>Component Average</i>	<i>1.27</i>	<i>0.11</i>	<i>1.47</i>	<i>0.05</i>	<i>1.65</i>	<i>0.03</i>
Governance						
Teachers participate weekly in working groups addressing parental involvement	0.66	0.07	0.62	0.03	0.64	0.07
Teachers formally meet weekly to develop or review student assessments	1.12	0.11	1.17	0.05	1.13	0.08
Teachers formally meet weekly to discuss instruction	1.40	0.13	1.48	0.04	1.41	0.08
<i>Component Average</i>	<i>1.06</i>	<i>0.07</i>	<i>1.09</i>	<i>0.03</i>	<i>1.06</i>	<i>0.06</i>

Table F.4—Continued

Success for All	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Assessment of Students						
School assesses students on reading multiple times per marking period	1.41	0.18	1.44	0.06	1.54	0.08
Teachers review student scores with principal after all assessments	1.15	0.15	1.06	0.06	0.95	0.09
Teachers review student scores with school coach after all assessments	1.05	0.14	0.89	0.06	0.96	0.09
<i>Component Average</i>	<i>1.20</i>	<i>0.08</i>	<i>1.13</i>	<i>0.04</i>	<i>1.15</i>	<i>0.06</i>
Parental Involvement						
Parents always participate on school steering committee	1.46	0.13	1.60	0.08	1.62	0.09
A parental involvement working group meets weekly	0.86	0.06	0.93	0.08	0.88	0.11
At least 80% of parents attend special events	1.26	0.15	1.08	0.11	1.07	0.13
At least 40% of parents attend education workshops	1.06	0.20	0.72	0.07	0.50	0.10
At least 24% of parents volunteer	1.08	0.17	0.70	0.09	0.54	0.08
At least 15% of parents attend school committees or working groups	1.17	0.18	0.80	0.11	0.61	0.10
Teachers require parents to sign reading homework	1.56	0.19	1.67	0.08	1.85	0.05
At least 98% of students return homework signed by parents	0.86	0.15	0.96	0.08	1.37	0.11
<i>Component Average</i>	<i>1.16</i>	<i>0.09</i>	<i>1.06</i>	<i>0.05</i>	<i>1.06</i>	<i>0.04</i>
Professional Development						
Principal received specified hours of CSR-related professional development this year	1.10	0.17	0.58	0.09	0.78	0.12
Teachers received specified hours of CSR-related professional development this year	0.82	0.10	0.52	0.06	0.56	0.06
<i>Component Average</i>	<i>0.96</i>	<i>0.11</i>	<i>0.55</i>	<i>0.06</i>	<i>0.67</i>	<i>0.08</i>

Table F.4—Continued

Success for All	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
Feedback on Instruction						
Teachers receive weekly formal feedback on their teaching from school staff	0.55	0.12	0.60	0.06	0.60	0.07
Teachers receive weekly formal feedback on their teaching from contractor	0.35	0.09	0.19	0.03	0.19	0.04
<i>Component Average</i>	<i>0.45</i>	<i>0.10</i>	<i>0.39</i>	<i>0.04</i>	<i>0.40</i>	<i>0.05</i>
Resources						
Principal disagrees “school has insufficient funds to support full implementation of Model”	1.00	0.33	1.09	0.16	1.20	0.20
Model Developer Support						
School has external consultant who assists in implementing schoolwide improvement programs	1.78	0.18	1.79	0.07	1.86	0.09
CSRM staff visited SFA schools 4 to 6 days this year	1.49	0.20	1.31	0.12	1.52	0.14
Principal agrees “model staff provide adequate support to the school”	1.77	0.13	1.68	0.10	1.83	0.10
Principal met with external consultant 10 times this year	0.86	0.18	0.52	0.05	0.69	0.12
Teachers interact formally with external consultant for implementation of improvement programs	0.93	0.16	0.73	0.08	1.02	0.12
Teachers met with external consultant 2 times this year	1.03	0.17	0.66	0.08	0.99	0.12
<i>Component Average</i>	<i>1.31</i>	<i>0.14</i>	<i>1.11</i>	<i>0.07</i>	<i>1.32</i>	<i>0.08</i>
Internal Facilitator						
Staff member spends time coordinating schoolwide improvement programs as required by model	1.08	0.26	1.34	0.20	1.23	0.19
Principal met with staff member 75 times this year	0.89	0.27	1.29	0.19	1.01	0.15
Teacher met with facilitator 8 times this year	0.97	0.22	1.04	0.20	1.14	0.13
<i>Component Average</i>	<i>0.98</i>	<i>0.19</i>	<i>1.22</i>	<i>0.15</i>	<i>1.13</i>	<i>0.12</i>

Table F.4—Continued

Success for All	Years 1-3		Years 4-6		Years 7+	
	Mean score	Std error	Mean score	Std error	Mean score	Std error
School Support						
Principal agrees “most teachers are fully committed to using CSRM model”	1.22	0.23	1.43	0.12	1.66	0.15
Principal agrees “most parents are supportive of CSRM model”	1.52	0.15	1.61	0.10	1.67	0.13
Teachers strongly agree “principal is committed to using CSRM model”	1.44	0.09	1.48	0.07	1.67	0.07
Teachers strongly agree “teachers are committed to using CSRM model”	0.78	0.14	1.08	0.08	1.26	0.08
<i>Component Average</i>	<i>1.24</i>	<i>0.11</i>	<i>1.40</i>	<i>0.09</i>	<i>1.56</i>	<i>0.09</i>
District Support						
District gives the school all the support it needs to implement schoolwide programs	1.57	0.20	1.38	0.21	1.67	0.13

Implementation Standardized Scores Specific to Each Model

This Appendix contains the standardized implementation scores of each indicator for each support and core components specific to each model discussed in Chapter Four. These scores are computed differently for each model as defined by their specific requirements.

**Table G.1
Implementation Standardized Scores Specific to Each Model**

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Content								
Teachers teach at least 1 hour of reading per day for DI and 1.5 hours per day for SFA					1.98	0.01	1.93	0.02
Teachers agree "reading curriculum is well aligned with state standards"	1.56	0.07	1.40	0.08				
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.19	0.08			1.61	0.04		
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.64	0.05	1.45	0.08	1.31	0.05		
Teachers use yearlong plan to minimize curriculum overlap			1.46	0.08				
Teachers contribute to the development of the yearlong plan or pacing guide			1.06	0.09				
Teachers consult the yearlong plan or pacing guide on a daily basis					1.16	0.04		
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster			1.71	0.05	1.60	0.05	1.64	0.04
CSRM is used for reading instruction at each grade level			1.91	0.04			1.90	0.03
CK history and geography curriculum is used in all grades			1.59	0.08				
School provides teachers with at least 90 minutes per week for structured planning time			0.84	0.06				
Teachers use Getting Along Together strategies in their classroom every school day							1.15	0.06

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Supporting Materials								
School provided materials with “CK Sequence,” “What Your X Graders Need to Know,” “CK K-8 Guide,” “Dictionary of Cultural Literacy”			1.18	0.10				
100% of the reading materials teachers use are produced by model developer							1.17	0.07
School uses SFA reading materials for Spanish-dominant children							1.90	0.04
Most or all special education classes uses SFA							1.47	0.08
Classroom Instruction								
At least 75% of other reading teachers are certified							1.49	0.09
Students work collaboratively in groups or pairs during reading instruction every school day	1.28	0.05					1.68	0.04
Teachers devote more than 75% of their instructional time on “students doing hands-on activities”	1.19	0.04						
Teachers devote more than 75% of their instructional time on “developing higher-order thinking skills”	1.32	0.04						
Teachers devote more than 75% of their instructional time on “students’ individual exploration”	0.91	0.03						
Teachers devote more than 75% of their instructional time on “activities based on real-life situations or issues”	1.15	0.04						
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	1.13	0.05						
Teachers devote more than 75% of their instructional time on “thematic instruction”	1.00	0.04						

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers agree “all students in their class can achieve high standards”	1.53	0.07						
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”					1.61	0.04		
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons					0.95	0.07		
Teachers assign 20 minutes of reading homework every school day							1.72	0.04
Teachers teach at an instructional level that is higher than the level of most of the students							1.16	0.04
Students receive supplemental tutoring in reading					1.47	0.06	1.30	0.06
Tutored students receive tutoring every school day					1.08	0.05	0.93	0.05
Tutored students receive one-on-one tutoring							0.54	0.05
75% of students are receiving tutoring					0.87	0.05	0.72	0.05
At least 30% of first graders in the school are tutored at least weekly							1.55	0.05
Teachers award team points to teams that effectively use the cooperative learning standards every school day							1.18	0.07
Teachers use the Inquiry Process to a great extent to make key decisions about student learning	1.19	0.07						
Teachers use Powerful Learning Framework to a great extent to inform lesson plans in all academic areas	1.24	0.07						
Grouping of Students								
Students are assigned to reading classes based on current academic performance					1.49	0.08	1.73	0.07

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Students in reading classes or groups are at about the same reading skill level					1.25	0.07	1.43	0.06
Student tests are used to assign students to reading classes at least every 9–11 weeks for DI and 6–8 weeks for SFA					0.73	0.05	1.25	0.05
Student tests are used to assign students to reading groups at least every 9–11 weeks for DI and 6–8 weeks for SFA					0.85	0.06		
Students with lowest reading skills are placed in smaller reading groups					0.82	0.07		
Teachers teach reading to students in small groups most of the time					0.94	0.06		
Reading groups have no more than 4 students for SFA and 9 students for DI					1.72	0.04	1.38	0.05
Classes have 20 or fewer students							1.51	0.04
Governance								
Teachers agree “all staff and administration have a strong sense of school purpose”	1.73	0.06						
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.94	0.06						
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.47	0.04						
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum, allocating school budget”	1.34	0.04						

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.66	0.05						
School steering committee meets at least weekly	1.50	0.03						
Stakeholders always participate in school steering committee	1.09	0.09						
The school has 5 or more working groups	1.54	0.06						
Teachers participate weekly in working groups addressing curriculum	1.04	0.05						
Teachers participate weekly in working groups addressing parental involvement	0.52	0.04					0.62	0.03
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.62	0.02						
The principal participates weekly in the curriculum and instruction working group	1.36	0.09						
Teachers formally meet weekly to develop or review student assessments							1.15	0.04
Teachers formally meet weekly to discuss instruction			1.44	0.05			1.43	0.04
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.24	0.04	1.08	0.03				
At least 80% of teachers work on a cadre	1.53	0.06						
Cadre plans are “always brought through the steering committee and school as a whole for final decisions”	1.86	0.06						

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Accountability-Assessment of Students								
School assesses students on reading multiple times per marking period	1.30	0.09	1.47	0.09	1.40	0.05	1.46	0.05
Teachers review student scores with principal after all assessments					1.02	0.04	1.03	0.05
Teachers review student scores with school coach after all assessments					0.83	0.05	0.91	0.05
Teachers review student scores with external coach after all assessments					0.36	0.03		
Parental Involvement								
Parents always participate on school steering committee	1.45	0.13					1.58	0.05
A parental involvement working group meets weekly							0.91	0.05
At least 90% of parents for CK and 80% of parents for SFA attend special events			0.86	0.11			1.11	0.07
At least 20% of parents for CK and 40% of parents for SFA attend education workshops			1.01	0.12			0.71	0.06
At least 30% of parents for CK and 24% of parents for SFA volunteer			0.89	0.12			0.72	0.06
At least 30% of parents for AS and CK and 15% of parents for SFA attend school committees or working groups	0.57	0.12	0.59	0.10			0.81	0.07
Teachers require parents to sign reading homework							1.69	0.06
At least 96% of students return homework signed by parents							1.05	0.06
Professional Development								
Principal received 16 hours of professional development training for CK this year, 60 hours for SFA, 42 hours for AS, and 40 hours for DI	0.98	0.16	0.66	0.12	0.65	0.07	0.71	0.07

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers received 20 hours of professional development training for CK this year, 42 hours for AS and SFA, and 40 hours for DI	0.83	0.12	0.56	0.09	0.50	0.05	0.57	0.04
Principal attended all or most leadership team training and network meetings this year	1.06	0.15						
To a great extent, the school's professional development is "the result of plans developed through the Inquiry Process"	1.14	0.12						
Feedback on Instruction								
Teachers receive weekly formal feedback on their teaching from principals			0.87	0.03	0.92	0.03		
Teachers receive weekly formal feedback on their teaching from school staff			0.47	0.06	0.59	0.04	0.58	0.04
Teachers receive weekly formal feedback on their teaching from contractor			0.05	0.02	0.21	0.03	0.22	0.03
Teachers receive weekly formal feedback on their teaching from parents			0.58	0.06				
Teachers receive weekly formal feedback on their teaching from district staff			0.23	0.04	0.35	0.03		
Resources								
Principal disagrees "school has insufficient funds to support full implementation of model"	1.24	0.21	0.68	0.14	1.17	0.13	1.10	0.12
Model Developer Support								
School has external consultant who assists in implementing schoolwide improvement programs	1.31	0.13	1.12	0.11	1.21	0.09	1.82	0.05
CSRM staff visited AS schools 36 days, CK schools 6 days, DI schools 30 days, SFA schools 4 to 6 days	0.31	0.10	0.27	0.08	0.43	0.07	1.41	0.08

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Principal agrees “model staff provide adequate support to the school”	1.39	0.12	1.09	0.12	1.66	0.05	1.72	0.07
Principal met with external consultant 25.5 times for AS, 12 times for CK, 15 times for DI, and 11 times for SFA this school year	0.54	0.09	0.55	0.07	0.68	0.05	0.74	0.05
Teachers interact formally with external consultant for implementation of improvement programs	0.99	0.10	0.45	0.06	0.63	0.06	0.86	0.06
Teachers met with external consultant 20 times for AS, 7 times for CK, 10 times for DI, and 7 times for SFA this year	0.72	0.08	0.40	0.06	0.45	0.05	0.53	0.04
Internal Facilitator								
Staff member spends time coordinating schoolwide improvement programs 100% time for DI and SFA, 25% time for AS, and 33% time for CK	0.87	0.23	1.01	0.20	0.67	0.09	1.18	0.11
Principal met with staff member 52 times for AS, and 99 times for CK, DI, and SFA this year	0.52	0.14	0.66	0.17	0.66	0.08	1.02	0.10
Teacher met with facilitator 25 times for AS and 20 times for CK, DI, and SFA this year	0.74	0.09	0.68	0.10	0.56	0.04	0.59	0.06
School Support								
Principal agrees “most teachers are fully committed to using CSR model”	1.44	0.11	1.15	0.13	1.44	0.08	1.46	0.08
Principal agrees “most parents are supportive of CSR model”	1.66	0.08	1.38	0.11	1.60	0.06	1.61	0.07
Teachers strongly agree “principal is committed to using CSR model”	1.40	0.08	1.31	0.07	1.27	0.04	1.54	0.05
Teachers strongly agree “teachers are committed to using CSR model”	1.11	0.06	1.20	0.06	1.36	0.10	1.09	0.05

Table G.1—Continued

	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
District Support								
Principal disagrees “state and/or district policies and regulations impede school’s efforts to improve student performance”	1.34	0.16			1.43	0.05		
District gives the school all the support it needs to implement schoolwide programs	1.26	0.08	1.60	0.13	1.38	0.06	1.54	0.10

Implementation Standardized Scores, by Model and Nonmodel Schools

This Appendix contains the standardized implementation scores computed similarly for each indicator common to all study models as discussed in Chapter Five (Table 5.1). It also contains the scores for each indicator common to each type of model school and matched non-model school.

Table H.1
Implementation Standardized Scores by Type of CSR Model

Dependent Variable	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Curriculum Content								
Teachers teach at least 1.5 hours daily	1.87	0.03	1.82	0.03	1.88	0.02	1.93	0.02
Teachers agree "reading curriculum is well aligned with state standards"	1.56	0.07	1.40	0.07	1.45	0.04	1.49	0.05
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.64	0.07	1.64	0.06	1.61	0.04	1.67	0.04
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.19	0.08	1.45	0.07	1.32	0.05	1.36	0.05
Teachers use yearlong plan to minimize curriculum overlap	1.21	0.10	1.46	0.09	0.92	0.06	1.06	0.07
Teachers contribute to the development of the yearlong plan or pacing guide	0.90	0.10	1.06	0.09	0.76	0.06	0.62	0.07
Teachers consult the yearlong plan or pacing guide on a daily basis	1.12	0.05	1.22	0.05	1.15	0.03	1.18	0.03
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.59	0.07	1.71	0.06	1.60	0.04	1.64	0.05
Classroom Instruction								
At least 75% of other reading teachers are certified	1.43	0.14	1.12	0.13	1.45	0.08	1.49	0.09
Students work collaboratively in groups or pairs during reading instruction every school day	1.28	0.06	1.21	0.05	1.06	0.03	1.68	0.04
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.14	0.04	1.04	0.04	1.02	0.03	1.10	0.03
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.31	0.04	1.18	0.04	1.27	0.03	1.30	0.03

Table H.1—Continued

Dependent Variable	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers devote more than 75% of their instructional time on “students’ individual exploration”	0.90	0.04	0.84	0.03	0.88	0.02	0.92	0.03
Teachers devote more than 75% of their instructional time on “activities based on real-life situations or issues”	1.13	0.04	1.04	0.04	1.06	0.03	1.12	0.03
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	1.07	0.04	0.93	0.04	0.96	0.03	1.03	0.03
Teachers devote more than 75% of their instructional time on “thematic instruction”	0.97	0.04	0.96	0.04	0.92	0.03	0.92	0.03
Teachers agree “all students in their class can achieve high standards”	1.53	0.08	1.27	0.08	1.36	0.05	1.37	0.06
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”	1.59	0.06	1.64	0.05	1.61	0.04	1.60	0.04
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons	0.23	0.09	0.40	0.08	0.95	0.06	0.85	0.06
Teachers assign 20 minutes of reading homework every school day	1.47	0.06	1.33	0.06	1.34	0.04	1.72	0.04
Teachers teach at an instructional level that is higher than the level of most of the students	1.23	0.05	1.15	0.04	1.19	0.03	1.20	0.03
Students receive supplemental tutoring in reading	1.72	0.09	1.42	0.08	1.47	0.05	1.30	0.06
Tutored students receive tutoring every school day	1.29	0.08	1.01	0.07	1.08	0.05	0.93	0.05
Tutored students receive one-on-one tutoring	0.46	0.07	0.40	0.07	0.37	0.05	0.54	0.05
53% of students are receiving tutoring	1.07	0.07	0.65	0.07	0.90	0.04	0.72	0.05

Table H.1—Continued

Dependent Variable	AS		CK		DI		SFA		
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error	
Grouping of Students									
Students are assigned to reading classes based on current academic performance	1.38	0.13	1.45	0.12	1.50	0.08	1.71	0.09	
Students in reading classes or groups are at about the same reading skill level	1.09	0.10	1.05	0.09	1.25	0.06	1.43	0.07	
Student tests are used to assign students to reading classes at least every 9–12 weeks	0.66	0.09	0.79	0.08	0.73	0.05	1.49	0.06	
Student tests are used to assign students to reading groups at least every 9–12 weeks	1.13	0.09	0.79	0.08	0.85	0.06	0.74	0.06	
Students with lowest reading skills are placed in smaller reading groups	1.14	0.12	0.86	0.11	0.82	0.07	0.58	0.08	
Teachers teach reading to students in small groups most of the time	1.06	0.09	0.60	0.09	0.94	0.06	0.29	0.06	
Governance									
Teachers agree “all staff and administration have a strong sense of school purpose”	1.73	0.06	1.81	0.06	1.73	0.04	1.74	0.04	
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.93	0.07	1.90	0.06	1.84	0.04	1.89	0.05	
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.48	0.04	1.52	0.04	1.49	0.02	1.56	0.03	
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum, allocating school budget”	1.34	0.04	1.24	0.04	1.23	0.03	1.16	0.03	

Table H.1—Continued

Dependent Variable	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.66	0.06	1.59	0.05	1.55	0.04	1.50	0.04
School steering committee meets at least weekly	1.47	0.04	1.38	0.03	1.39	0.02	1.37	0.02
Stakeholders always participate in school steering committee	1.10	0.06	1.18	0.05	1.13	0.04	1.12	0.04
The principal participates weekly in the curriculum and instruction working group	1.36	0.09	1.20	0.08	1.34	0.05	1.34	0.06
The school has 5 or more working groups	1.54	0.09	1.44	0.08	1.42	0.05	1.43	0.06
Teachers participate weekly in working groups addressing curriculum	0.97	0.05	0.86	0.05	0.84	0.03	0.82	0.04
Teachers participate weekly in working groups addressing parental involvement	0.57	0.05	0.61	0.04	0.58	0.03	0.61	0.03
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.62	0.04	0.58	0.03	0.57	0.02	0.58	0.02
Teachers formally meet weekly to develop or review student assessments	1.35	0.06	1.16	0.06	1.21	0.04	1.15	0.04
Teachers formally meet weekly to discuss instruction	1.54	0.06	1.44	0.05	1.41	0.04	1.43	0.04
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.24	0.04	1.08	0.04	1.07	0.03	1.06	0.03
Assessment of Students								
School assesses students on reading multiple times per marking period	1.30	0.08	1.47	0.07	0.40	0.05	1.46	0.05

Table H.1—Continued

Dependent Variable	AS		CK		DI		SFA	
	Mean score	Std error	Mean score	Std error	Mean score	Std error	Mean score	Std error
Teachers review student scores with principal after all assessments	1.27	0.07	1.01	0.07	1.02	0.04	1.03	0.05
Teachers review student scores with school coach after all assessments	0.86	0.07	0.75	0.07	0.83	0.05	0.91	0.05
Teachers review student scores with external coach after all assessments	0.36	0.05	0.22	0.05	0.36	0.03	0.25	0.03
Parental Involvement								
Parents always participate on school steering committee	1.32	0.11	1.69	0.10	1.48	0.07	1.38	0.07
A parental involvement working group meets weekly	0.65	0.08	0.89	0.07	0.82	0.05	0.92	0.05
At least 85% of parents attend special events	1.11	0.10	0.98	0.10	0.82	0.06	1.05	0.07
At least 35% of parents attend education workshops	0.82	0.10	0.73	0.09	0.70	0.06	0.83	0.07
At least 25% of parents volunteer	0.81	0.10	0.99	0.09	0.66	0.06	0.73	0.07
At least 20% of parents attend school committees or working groups	0.71	0.11	0.76	0.10	0.65	0.07	0.70	0.07
Teachers require parents to sign reading homework	1.16	0.09	1.08	0.09	0.92	0.06	1.69	0.06
At least 98% of students return homework signed by parents	0.76	0.08	0.70	0.08	0.56	0.05	1.06	0.06

Table H.2
Implementation Standardized Scores by Accelerated Schools and Matched Comparison Schools

	AS Model		AS Comparison	
	Mean score	Std error	Mean score	Std error
Curriculum Content				
Teachers teach at least 1.5 hours of reading per day	1.87	0.03	1.85	0.03
Teachers agree "reading curriculum is well aligned with state standards"	1.56	0.07	1.44	0.06
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.64	0.05	1.71	0.06
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.19	0.08	1.11	0.09
Teachers use yearlong plan to minimize curriculum overlap	1.21	0.12	1.02	0.08
Teachers contribute to the development of the yearlong plan or pacing guide	0.90	0.10	1.02	0.09
Teachers consult the yearlong plan or pacing guide on a daily basis	1.12	0.06	1.13	0.04
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.59	0.09	1.54	0.07
Methods of Instruction				
At least 75% of other reading teachers are certified	1.43	0.14	1.44	0.13
Students work collaboratively in groups or pairs during reading instruction every school day	1.28	0.05	1.13	0.05
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.14	0.04	1.09	0.04
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.31	0.04	1.28	0.03
Teachers devote more than 75% of their instructional time on "students' individual exploration"	0.90	0.02	0.93	0.03
Teachers devote more than 75% of their instructional time on "activities based on real-life situations or issues"	1.13	0.03	1.10	0.04

Table H.2—Continued

	AS Model		AS Comparison	
	Mean score	Std error	Mean score	Std error
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	1.07	0.04	1.03	0.04
Teachers devote more than 75% of their instructional time on “thematic instruction”	0.97	0.04	0.95	0.03
Teachers agree “all students in their class can achieve high standards”	1.53	0.07	1.38	0.08
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”	1.59	0.05	1.63	0.05
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons	0.23	0.05	0.25	0.05
Teachers assign 20 minutes of reading homework every school day	1.47	0.06	1.23	0.06
Teachers teach at an instructional level that is higher than the level of most of the students	1.23	0.04	1.25	0.03
Students receive supplemental tutoring in reading	1.72	0.06	1.75	0.06
Tutored students receive tutoring every school day	1.29	0.06	1.40	0.05
Tutored students receive one-on-one tutoring	0.46	0.07	0.41	0.07
53% of students are receiving tutoring	1.07	0.07	0.98	0.06
Grouping of Students				
Students are assigned to reading classes based on current academic performance	1.38	0.15	1.20	0.14
Students in reading classes or groups are at about the same reading skill level	1.09	0.09	0.92	0.10
Student tests are used to assign students to reading classes at least every 9–12 weeks	0.66	0.09	0.63	0.08
Student tests are used to assign students to reading groups at least every 9–12 weeks	1.13	0.08	1.00	0.09
Students with lowest reading skills are placed in smaller reading groups	1.14	0.12	0.91	0.12
Teachers teach reading to students in small groups most of the time	1.06	0.10	0.80	0.10
Reading groups have no more than 9 students	1.92	0.08	1.96	0.04

Table H.2—Continued

	AS Model		AS Comparison	
	Mean score	Std error	Mean score	Std error
Governance				
Teachers agree “all staff and administration have a strong sense of school purpose”	1.73	0.06	1.68	0.07
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.93	0.06	1.77	0.09
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.48	0.04	1.42	0.03
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum and school budget allocation”	1.34	0.23	1.20	0.22
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.66	0.05	1.43	0.06
School steering committee meets at least weekly	1.47	0.03	1.38	0.03
Stakeholders always participate in school steering committee	1.10	0.09	1.12	0.06
The school has 5 or more working groups	1.55	0.06	1.26	0.09
Teachers participate weekly in working groups addressing curriculum	0.97	0.05	0.76	0.06
Teachers participate weekly in working groups addressing parental involvement	0.57	0.04	0.57	0.03
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.62	0.03	0.53	0.03
The principal participates weekly in the curriculum and instruction working group	1.36	0.09	1.08	0.08
Teachers formally meet weekly to develop or review student assessments	1.35	0.06	1.11	0.06
Teachers formally meet weekly to discuss instruction	1.54	0.05	1.38	0.08
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.24	0.04	1.06	0.04

Table H.2—Continued

	AS Model		AS Comparison	
	Mean score	Std error	Mean score	Std error
Accountability-Assessment of Students				
School assesses students on reading multiple times per marking period	1.30	0.08	1.38	0.07
Teachers review student scores with principal after all assessments	1.27	0.07	0.90	0.07
Teachers review student scores with school coach after all assessments	0.86	0.07	0.57	0.07
Teachers review student scores with external coach after all assessments	0.36	0.06	0.20	0.05
Parental Involvement				
Parents always participate on school steering committee	1.32	0.13	1.45	0.11
A parental involvement working group meets weekly	0.65	0.08	0.88	0.07
85% of parents attend special events	1.11	0.09	1.07	0.09
35% of parents attend education workshops	0.82	0.12	0.69	0.09
25% of parents volunteer	0.81	0.11	0.86	0.11
20% of parents attend school committees or working groups	0.71	0.12	0.74	0.11
Teachers require parents to sign reading homework	1.16	0.09	0.85	0.11
At least 98% of students return homework signed by parents	0.76	0.09	0.56	0.09

Table H.3
Implementation Standardized Scores by Core Knowledge Schools and Matched Comparison Schools

	CK Model		CK Comparison	
	Mean score	Std error	Mean score	Std error
Curriculum Content				
Teachers teach at least 1.5 hours of reading per day	1.83	0.03	1.81	0.03
Teachers agree "reading curriculum is well aligned with state standards"	1.39	0.08	1.64	0.05
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.63	0.07	1.55	0.07
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.45	0.08	1.41	0.07
Teachers use yearlong plan to minimize curriculum overlap	1.47	0.08	1.07	0.10
Teachers contribute to the development of the yearlong plan or pacing guide	1.08	0.09	0.59	0.09
Teachers consult the yearlong plan or pacing guide on a daily basis	1.22	0.04	1.17	0.04
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.71	0.05	1.58	0.07
Methods of Instruction				
At least 75% of other reading teachers are certified	1.15	0.14	0.99	0.14
Students work collaboratively in groups or pairs during reading instruction every school day	1.22	0.04	1.17	0.05
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.04	0.04	1.10	0.03
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.18	0.04	1.27	0.03
Teachers devote more than 75% of their instructional time on "students' individual exploration"	0.84	0.03	0.89	0.02
Teachers devote more than 75% of their instructional time on "activities based on real-life situations or issues"	1.04	0.04	1.11	0.03

Table H.3—Continued

	CK Model		CK Comparison	
	Mean score	Std error	Mean score	Std error
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	1.00	0.04	0.84	0.03
Teachers devote more than 75% of their instructional time on “thematic instruction”	0.96	0.04	0.97	0.04
Teachers agree “all students in their class can achieve high standards”	1.26	0.09	1.22	0.08
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”	1.64	0.04	1.69	0.05
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons	0.41	0.07	0.22	0.05
Teachers assign 20 minutes of reading homework every school day	1.32	0.05	1.40	0.06
Teachers teach at an instructional level that is higher than the level of most of the students	1.15	0.04	1.21	0.03
Students receive supplemental tutoring in reading	1.43	0.08	1.68	0.06
Tutored students receive tutoring every school day	1.02	0.08	1.26	0.05
Tutored students receive one-on-one tutoring	0.41	0.07	0.48	0.08
53% of students are receiving tutoring	0.65	0.06	0.83	0.05
Grouping of Students				
Students are assigned to reading classes based on current academic performance	1.44	0.14	1.16	0.14
Students in reading classes or groups are at about the same reading skill level	1.05	0.08	1.16	0.09
Student tests are used to assign students to reading classes at least every 9–12 weeks	0.80	0.09	0.68	0.08
Student tests are used to assign students to reading groups at least every 9–12 weeks	0.81	0.08	1.15	0.09
Students with lowest reading skills are placed in smaller reading groups	0.87	0.11	0.88	0.11
Teachers teach reading to students in small groups most of the time	0.61	0.09	0.89	0.10
Reading groups have no more than 9 students	1.81	0.10	1.95	0.03

Table H.3—Continued

	CK Model		CK Comparison	
	Mean score	Std error	Mean score	Std error
Governance				
Teachers agree “all staff and administration have a strong sense of school purpose”	1.80	0.05	1.61	0.07
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.89	0.07	1.90	0.04
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.52	0.04	1.45	0.03
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum and school budget allocation”	1.24	0.04	1.24	0.03
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.58	0.05	1.49	0.06
School steering committee meets at least weekly	1.38	0.03	1.37	0.03
Stakeholders always participate in school steering committee	1.16	0.05	1.10	0.06
The school has 5 or more working groups	1.42	0.09	1.33	0.10
Teachers participate weekly in working groups addressing curriculum	0.86	0.05	0.82	0.04
Teachers participate weekly in working groups addressing parental involvement	0.61	0.05	0.57	0.04
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.58	0.04	0.56	0.03
The principal participates weekly in the curriculum and instruction working group	1.20	0.09	1.17	0.08
Teachers formally meet weekly to develop or review student assessments	1.18	0.05	1.16	0.05
Teachers formally meet weekly to discuss instruction	1.43	0.05	1.36	0.06
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.08	0.04	1.05	0.03

Table H.3—Continued

	CK Model		CK Comparison	
	Mean score	Std error	Mean score	Std error
Accountability-Assessment of Students				
School assesses students on reading multiple times per marking period	1.46	0.08	1.30	0.07
Teachers review student scores with principal after all assessments	1.02	0.07	1.10	0.07
Teachers review student scores with school coach after all assessments	0.75	0.07	0.84	0.06
Teachers review student scores with external coach after all assessments	0.23	0.04	0.28	0.05
Parental Involvement				
Parents always participate on school steering committee	1.68	0.10	1.26	0.11
A parental involvement working group meets weekly	0.89	0.08	0.72	0.07
85% of parents attend special events	0.98	0.11	0.85	0.09
35% of parents attend education workshops	0.72	0.10	0.43	0.08
25% of parents volunteer	1.01	0.11	0.42	0.05
20% of parents attend school committees or working groups	0.78	0.10	0.44	0.05
Teachers require parents to sign reading homework	1.09	0.08	0.88	0.07
At least 98% of students return homework signed by parents	0.72	0.08	0.52	0.07

Table H.4
Implementation Standardized Scores by Direct Instruction Schools and Matched Comparison Schools

	DI Model		DI Comparison	
	Mean score	Std error	Mean score	Std error
Curriculum Content				
Teachers teach at least 1.5 hours of reading per day	1.88	0.02	1.89	0.01
Teachers agree "reading curriculum is well aligned with state standards"	1.45	0.05	1.48	0.04
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.61	0.04	1.54	0.04
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.32	0.05	1.27	0.05
Teachers use yearlong plan to minimize curriculum overlap	0.92	0.06	0.89	0.06
Teachers contribute to the development of the yearlong plan or pacing guide	0.76	0.06	0.67	0.06
Teachers consult the yearlong plan or pacing guide on a daily basis	1.15	0.04	1.10	0.03
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.89	0.05	1.60	0.05
Classroom Instruction				
At least 75% of other reading teachers are certified	1.45	0.08	1.22	0.09
Students work collaboratively in groups or pairs during reading instruction every school day	1.06	0.04	1.25	0.03
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.02	0.03	1.14	0.02
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.27	0.03	1.28	0.03
Teachers devote more than 75% of their instructional time on "students' individual exploration"	0.88	0.02	0.95	0.02
Teachers devote more than 75% of their instructional time on "activities based on real-life situations or issues"	1.06	0.03	1.12	0.03

Table H.4—Continued

	DI Model		DI Comparison	
	Mean score	Std error	Mean score	Std error
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	0.96	0.03	1.06	0.03
Teachers devote more than 75% of their instructional time on “thematic instruction”	0.92	0.03	1.03	0.03
Teachers agree “all students in their class can achieve high standards”	1.36	0.05	1.35	0.05
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”	1.61	0.04	1.63	0.03
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons	0.95	0.07	0.38	0.05
Teachers assign 20 minutes of reading homework every school day	1.34	0.04	1.45	0.04
Teachers teach at an instructional level that is higher than the level of most of the students	1.19	0.03	1.21	0.02
Students receive supplemental tutoring in reading	1.47	0.06	1.62	0.05
Tutored students receive tutoring every school day	1.08	0.05	1.21	0.04
Tutored students receive one-on-one tutoring	0.37	0.05	0.48	0.05
53% of students are receiving tutoring	0.90	0.05	0.92	0.04
Grouping of Students				
Students are assigned to reading classes based on current academic performance	1.50	0.08	1.24	0.09
Students in reading classes or groups are at about the same reading skill level	1.25	0.07	1.19	0.07
Student tests are used to assign students to reading classes at least every 9–12 weeks	0.73	0.05	0.79	0.06
Student tests are used to assign students to reading groups at least every 9–12 weeks	0.85	0.06	1.07	0.06
Students with lowest reading skills are placed in smaller reading groups	0.82	0.07	0.94	0.07
Teachers teach reading to students in small groups most of the time	0.94	0.06	1.10	0.06
Reading groups have no more 9 students	1.66	0.07	1.82	0.06

Table H.4—Continued

	DI Model		DI Comparison	
	Mean score	Std error	Mean score	Std error
Governance				
Teachers agree “all staff and administration have a strong sense of school purpose”	1.73	0.04	1.63	0.04
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.84	0.05	1.86	0.04
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.49	0.02	1.52	0.02
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum and school budget allocation”	1.23	0.02	1.26	0.03
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.55	0.04	1.50	0.04
School steering committee meets at least weekly	1.39	0.02	1.28	0.03
Stakeholders always participate in school steering committee	1.13	0.03	1.14	0.04
The school has 5 or more working groups	1.42	0.06	1.32	0.05
Teachers participate weekly in working groups addressing curriculum	0.84	0.04	0.78	0.03
Teachers participate weekly in working groups addressing parental involvement	0.58	0.03	0.57	0.02
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.57	0.02	0.53	0.02
The principal participates weekly in the curriculum and instruction working group	1.34	0.05	1.34	0.05
Teachers formally meet weekly to develop or review student assessments	1.21	0.04	1.10	0.04
Teachers formally meet weekly to discuss instruction	1.41	0.04	1.40	0.04
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.07	0.03	1.04	0.03

Table H.4—Continued

	DI Model		DI Comparison	
	Mean score	Std error	Mean score	Std error
Accountability-Assessment of Students				
School assesses students on reading multiple times per marking period	1.40	0.05	1.30	0.06
Teachers review student scores with principal after all assessments	1.02	0.04	1.03	0.05
Teachers review student scores with school coach after all assessments	0.83	0.05	0.81	0.06
Teachers review student scores with external coach after all assessments	0.36	0.03	0.24	0.04
Parental Involvement				
Parents always participate on school steering committee	1.48	0.06	1.38	0.07
A parental involvement working group meets weekly	0.82	0.04	0.84	0.05
85% of parents attend special events	0.82	0.06	1.07	0.07
35% of parents attend education workshops	0.70	0.06	0.66	0.06
25% of parents volunteer	0.66	0.06	0.67	0.06
20% of parents attend school committees or working groups	0.65	0.06	0.69	0.06
Teachers require parents to sign reading homework	0.92	0.06	0.95	0.06
At least 98% of students return homework signed by parents	0.56	0.05	0.66	0.06

Table H.5
Implementation Standardized Scores by Success for All Schools and Matched Comparison Schools

	SFA Model		SFA Comparison	
	Mean score	Std error	Mean score	Std error
Curriculum Content				
Teachers teach at least 1.5 hours of reading per day	1.93	0.02	1.84	0.02
Teachers agree "reading curriculum is well aligned with state standards"	1.49	0.04	1.55	0.04
Teachers agree "there is consistency in curriculum/instruction among teachers in the same grade"	1.67	0.04	1.56	0.04
Teachers agree "curriculum/instruction materials are well coordinated across levels"	1.36	0.05	1.34	0.05
Teachers use yearlong plan to minimize curriculum overlap	1.06	0.06	1.01	0.06
Teachers contribute to the development of the yearlong plan or pacing guide	0.62	0.06	0.74	0.07
Teachers consult the yearlong plan or pacing guide on a daily basis	1.18	0.03	1.19	0.03
Teachers use yearlong plan or pacing guide and usually keep up with it or move faster	1.64	0.04	1.62	0.05
Methods of Instruction				
At least 75% of other reading teachers are certified	1.49	0.09	1.25	0.09
Students work collaboratively in groups or pairs during reading instruction every school day	1.68	0.04	1.27	0.04
Teachers devote more than 75% of their instructional time on "students doing hands-on activities"	1.10	0.03	1.11	0.03
Teachers devote more than 75% of their instructional time on "developing higher-order thinking skills"	1.30	0.03	1.27	0.03
Teachers devote more than 75% of their instructional time on "students' individual exploration"	0.92	0.03	0.96	0.03
Teachers devote more than 75% of their instructional time on "activities based on real-life situations or issues"	1.12	0.03	1.12	0.03

Table H.5—Continued

	SFA Model		SFA Comparison	
	Mean score	Std error	Mean score	Std error
Teachers devote more than 75% of their instructional time on “activities that connect students to their unique background and interests”	1.03	0.03	1.04	0.03
Teachers devote more than 75% of their instructional time on “thematic instruction”	0.92	0.03	0.98	0.04
Teachers agree “all students in their class can achieve high standards”	1.37	0.05	1.29	0.05
Teachers agree “teachers in the school emphasize immediate correction of student academic errors”	1.60	0.04	1.48	0.05
Teachers “usually” or “always” follow closely an explicit word-for-word text or script for presenting reading lessons	0.85	0.06	0.35	0.05
Teachers assign 20 minutes of reading homework every school day	1.72	0.04	1.42	0.04
Teachers teach at an instructional level that is higher than the level of most of the students	1.20	0.03	1.21	0.03
Students receive supplemental tutoring in reading	1.30	0.06	1.63	0.05
Tutored students receive tutoring every school day	0.93	0.05	1.20	0.05
Tutored students receive one-on-one tutoring	0.54	0.05	0.50	0.05
53% of students are receiving tutoring	0.72	0.05	0.93	0.04
Grouping of Students				
Students are assigned to reading classes based on current academic performance	1.71	0.07	1.32	0.09
Students in reading classes or groups are at about the same reading skill level	1.43	0.06	1.05	0.07
Student tests are used to assign students to reading classes at least every 9–12 weeks	1.49	0.06	0.65	0.05
Student tests are used to assign students to reading groups at least every 9–12 weeks	0.74	0.06	0.93	0.07
Students with lowest reading skills are placed in smaller reading groups	0.58	0.08	0.94	0.09
Teachers teach reading to students in small groups most of the time	0.29	0.05	0.84	0.06
Reading groups have no more than 9 students	1.60	0.16	1.96	0.04

Table H.5—Continued

	SFA Model		SFA Comparison	
	Mean score	Std error	Mean score	Std error
Governance				
Teachers agree “all staff and administration have a strong sense of school purpose”	1.74	0.04	1.68	0.05
Principal agrees “I rely on a consensus decisionmaking process in my school”	1.89	0.04	1.82	0.06
The school has “complete control” over developing goals, setting student performance standards, adjusting the curriculum, budget allocation, choosing improvement programs	1.56	0.03	1.50	0.03
Teachers have a great deal of influence “developing school goals, setting performance standards, adjusting the curriculum and school budget allocation”	1.16	0.03	1.26	0.02
Teachers agree “my skills and expertise as a professional are utilized to address schoolwide issues”	1.50	0.04	1.51	0.04
School steering committee meets at least weekly	1.37	0.03	1.35	0.02
Stakeholders always participate in school steering committee	1.12	0.04	1.12	0.03
The school has 5 or more working groups	1.51	0.04	1.43	0.06
Teachers participate weekly in working groups addressing curriculum	0.82	0.03	0.73	0.03
Teachers participate weekly in working groups addressing parental involvement	0.61	0.03	0.55	0.02
Teachers participate weekly in working groups addressing budgets, curriculum, parental involvement, discipline, and school safety	0.58	0.02	0.52	0.02
The principal participates weekly in the curriculum and instruction working group	1.34	0.06	1.16	0.06
Teachers formally meet weekly to develop or review student assessments	1.15	0.04	1.11	0.04
Teachers formally meet weekly to discuss instruction	1.43	0.04	1.41	0.04
Teachers formally meet weekly to assess “school needs, set school goals, implement plans to meet goals, develop/review assessments, discuss instructional strategies, and develop or revise curricula”	1.06	0.03	1.05	0.03

Table H.5—Continued

	SFA Model		SFA Comparison	
	Mean score	Std error	Mean score	Std error
Accountability-Assessment of Students				
School assesses students on reading multiple times per marking period	1.46	0.05	1.31	0.06
Teachers review student scores with principal after all assessments	1.03	0.05	1.04	0.05
Teachers review student scores with school coach after all assessments	0.91	0.05	0.73	0.05
Teachers review student scores with external coach after all assessments	0.25	0.03	0.29	0.04
Parental Involvement				
Parents always participate on school steering committee	1.38	0.08	1.49	0.07
A parental involvement working group meets weekly	0.92	0.05	0.89	0.05
85% of parents attend special events	1.05	0.07	0.84	0.08
35% of parents attend education workshops	0.83	0.06	0.51	0.05
25% of parents volunteer	0.73	0.06	0.68	0.07
20% of parents attend school committees or working groups	0.70	0.07	0.59	0.06
Teachers require parents to sign reading homework	1.69	0.06	1.07	0.06
At least 98% of students return homework signed by parents	1.06	0.06	0.66	0.05

Model Support and School Background Variables

This Appendix presents the model support and school background variables that were used in the analysis in order to explain their relationship to level of implementation of the core components of each model. Table I.1 lists the support indicators for model implementation that were used for analyses in Chapter Six. Table I.2 lists the school-related variables included in these same analyses.

Table I.1
List of Support Indicators by Core Components, by Survey and by Model

Professional Development	Survey	AS	CK	DI	SFA
Principal received specified hours of CSRM-related professional development this year	P	X	X	X	X
Teachers received specified hours of CSRM-related professional development this year	T	X	X	X	X
Principal attended all or most leadership team training and network meetings this year	P	X			
To a great extent, the school's professional development is "the result of plans developed through the Inquiry Process"	P	X			
Resource Requirement					
Principal disagrees "school has insufficient funds to support full implementation of Model"	P	X	X	X	X
Model Developer Support					
School has external consultant who assists in implementing schoolwide improvement programs	P	X	X	X	X

Table I.1—Continued

Professional Development	Survey	AS	CK	DI	SFA
Principal met with external consultant 25.5 times for AS, 12 for CK, 15 for DI, and 11 for SFA this school year	P	X	X	X	X
CSRM staff visited school specified days during the year	P	X	X	X	X
Principal agrees "model staff provide adequate support to the school"	P	X	X	X	X
Teachers interact formally with external consultant for implementation of improvement programs	T	X	X	X	X
Teacher met with external consultants 20 times for AS, 7 times for CK, 10 times for DI, and 7 times for SFA this year	T	X	X	X	X
School Support					
Principal agrees "most teachers are fully committed to using CSRM"	P	X	X	X	X
Principal agrees "most parents are supportive of CSRM"	P	X	X	X	X
Teachers strongly agree "principal is committed to using CSRM model"	T	X	X	X	X
Teachers strongly agree "teachers are committed to using CSRM model"	T	X	X	X	X
District Support					
District gives the school all the support it needs to implement schoolwide programs	P	X	X	X	X
Principal disagrees "state and/or district policies and regulations impede school's efforts to improve student performance"	P	X		X	
Internal Facilitator					
Teacher met with facilitator 25 times for AS and 20 times for CK, DI, and SFA this year	T	X	X	X	X
Staff member spends time coordinating schoolwide improvement programs as required by model	P	X	X	X	X
Principal met with staff member prescribed number of times for CSRM this year	P	X	X	X	X

NOTE: P = principal survey; T = teacher survey.

Table I.2
List of School-Level Variables, by Variable Source

Common Core of Data (CCD)

- Percent free lunch eligible students
- Percent reduced-price lunch eligible students
- Percent free or reduced-price lunch eligible students
- Percent black non-Hispanic students
- Percent Hispanic students
- Percent white non-Hispanic students
- Percent minority
- Locality: 1 = urban, 7 = rural
- Pupil/teacher ratio
- Percent limited English proficiency

Principal Survey

- Enrollment on January 31st of survey year
- School has received federal comprehensive school reform demonstration project funds (any year)
- Total funds available for model implementation
- Principal highest degree (Master's = 5; Doctorate = 7)
- Number of years as principal at school
- Four full years of implementation
- School's level of control^a (AS excluded)
- School uses consensus driven leadership (AS excluded)

Teacher Survey

- Teachers highest degree (Bachelor's = 4; Master's = 5)
- Hours per week of planning for teachers (CK excluded)
- Number of hours of one-on-one coaching (annual)
- Teachers' level of control^b (AS excluded)
- School climate^c (AS excluded)

NOTE: School-level teacher variables are the average of all responding teachers. CCD percents are derived from school totals.

^a School control is the average response to five 5-point Likert scale items. The items ask principals how much influence they have (1 = no influence, 5 = a great deal of influence) over developing goals for the school, setting performance standards for students in their school, adjusting the curriculum, deciding how the school budget will be spent, and choosing improvement programs. It is derived from the governance requirements of the AS model.

^b Teachers' level of control is the average response to three 5-point Likert scale items. The three items ask teachers how much influence they have (1 = no influence, 5 = a great deal of influence) over developing goals for the school, adjusting the curriculum, and deciding how the school budget will be spent. It is derived from the governance requirements of the AS model.

^c School climate is the average response to six 5-point Likert scale items. The items ask teachers the extent to which they agree (1 = strongly disagree, 5 = strongly agree) that all staff and administration have a strong sense of the school's purpose, the principal is responsive to their concerns, teacher morale is high, discipline is not a problem in their school, all students in their class are capable of achieving at high standards, and their skills and expertise as professionals are utilized to address school-wide issues. It is derived from the governance requirements of the AS model.

Support of Implementation of Individual Models

In Chapter Six, we look across models for general themes regarding the relationship between model support mechanisms and model implementation. Here we display outcomes of our analysis of the support for implementation of each model individually, including correlation, simple regression, and multiple regression results.

Table J.1 displays, for each of the four models, the minimum correlation level that can be detected as significant with 80 percent power at the $\alpha = 0.05$ significance level. The available data for each CSR model separates our four models into two classes with regard to statistical power. With the fewer number of observations, correlations for AS and CK need to be at least 10 percentage points higher than those for DI or SFA to be identified as significant. The reader should keep this discrepancy in mind, particularly when considering the results across model types. We consider bivariate results with p -values of 0.10 or less,

Table J.1
Minimum Detectable Correlation Levels in Cross-Sectioned Analytical Sample

Model Type	Number of Schools	Minimum Detectable Significant Correlation
Accelerated Schools	36	0.447
Core Knowledge	42	0.416
Direct Instruction	93	0.286
Success for All	79	0.309

NOTE: Power = 80%, $\alpha = 0.05$.

in part out of deference to these less-than-ideal levels of power. The multivariate regression models investigated followed a standard fixed effects multiple regression formulation, with an independent model component average serving as the dependent outcome variable. The set of potential independent variables consisted of the individual support indicators and the school-level variables enumerated in Tables I.1 and I.2 above. As detailed in Appendix E, a second stage of multiple imputation was used to account for missing values in fitting the multiple regression models.

As the number of observations per model was less than desirable, particularly for AS and CK, relative to the number of individual support indicators and school-level variables that were candidates for the model, care had to be taken with respect to available degrees of freedom in the model selection process. For each model component, the field of candidate independent variables was first narrowed by eliminating all those that did not have a p -value for bivariate correlation with implementation of the model component of under 0.20. When necessary, the list of remaining candidates were paired down further by fitting the multiple regression model first on subsets of the candidates and eliminating the weakest candidates. The remaining candidates were then added into the model using a combination of forward and backward stepwise procedures. Where those procedures disagreed, additional permutations among the candidates chosen in at least one of the procedures were examined, and a final model selection was made based upon a combination of criteria, including coefficient p -values, adjusted R-squared, and likelihood-based measures of model fit.

In the end, because of the high level of multiple correlation within and among the support indicators, the resultant multicollinearity in the multivariate regression models diminished their relative importance, and these multivariate models must also be interpreted with care. For example, if principal and teacher professional development are both important to implementation and high-implementing schools tend to do both, only one of these may show up as significant in the multivariate model. In such instances, the multivariate model would indicate that professional development is important without being able to sort out whether one or the other (or both) are important. There are two

individual instances in which an indicator for a support component was included in the multivariate model, but did not have a significant bivariate correlation; these were resource requirements for SFA curriculum implementation (Table J.9) and internal facilitator for DI methods of instruction (Table J.7).

Results

Tables J.2 through J.9 display the support for implementation results for each model.

Accelerated Schools Support of Implementation Results

Table J.2
Support Indicators and Descriptive Variables Correlated with the Implementation of Accelerated Schools

ACCELERATED SCHOOLS BIVARIATE ANALYSES (<i>N</i> = 36)	Curriculum		Methods of Instruction			Governance			
	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value
Professional Development									
Principal received specified hours of DI-related professional development this year				0.518	0.135	0.004	0.566	0.083	0.001
Teachers received specified hours of DI-related professional development this year				0.508	0.175	0.005	0.456	0.088	0.013
Principal attended all or most leadership team training and network meetings this year				0.668	0.177	< 0.001	0.442	0.066	0.016
To a great extent, the school's professional development is "the result of plans developed through the Inquiry Process"				0.379	0.124	0.043	0.474	0.086	0.009

Table J.2—Continued

ACCELERATED SCHOOLS BIVARIATE ANALYSES (N = 36)	Curriculum			Methods of Instruction			Governance		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Model Developer Support									
School has external consultant who assists in implementing schoolwide improvement programs							0.529	0.094	0.002
Frequency principal met with external consultant							0.319	0.075	0.07
Principal agrees "model staff provide adequate support to the school"							0.354	0.067	0.043
Teachers interact formally with external consultant for implementation of improvement programs				0.296	0.109	0.094	0.319	0.075	0.07
School Support									
Principal agrees "most teachers are fully committed to using CK"				0.376	0.139	0.048			
Principal agrees "most parents are supportive of CK"				0.457	0.249	0.015			
Teachers strongly agree "principal is committed to using model"				0.448	0.249	0.017			

Table J.2—Continued

ACCELERATED SCHOOLS BIVARIATE ANALYSES (N = 36)	Curriculum			Methods of Instruction			Governance		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Teachers strongly agree "teachers are committed to using DI"				0.441	0.312	0.019			
District Support									
District gives the school support needed to implement schoolwide programs	0.33	0.206	0.065						
Internal Facilitator									
Teacher met with facilitator specified number of times				0.406	0.104	0.094			
Descriptive Variables									
Enrollment (in 100's)	-0.42	-0.074	0.017						
Total funds available (in \$1000's)				0.642	0.002	0.001			
Greater than three years of implementation				-0.467	-0.235	0.012			
Principal's highest degree							0.408	0.11	0.023
Percent white non- Hispanic students	0.327	0.263	0.059						
Percent African American non-Hispanic students				-0.402	-0.346	0.018			

Table J.2—Continued

ACCELERATED SCHOOLS BIVARIATE ANALYSES (<i>N</i> = 36)	Curriculum			Methods of Instruction			Governance		
	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value
Percent Hispanic students	-0.365	-0.258	0.034	0.312	0.18	0.072			
Percent minority	-0.337	-0.267	0.052						
Percent limited English proficiency				0.296	0.282	0.084			
Percent free lunch eligible students							0.344	0.194	0.046
Percent reduced-price lunch eligible students	0.401	2.414	0.019						
Percent free or reduced- price lunch eligible students							0.367	0.186	0.033

(EMPTY cells indicate no significant relationship with that component.)

Table J.3
Multivariate Regression Models Describing Accelerated Schools Implementation

ACCELERATED SCHOOLS MULTIPLE REGRESSION MODELS (N = 36)	Curriculum		Methods of Instruction		Governance	
	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value
Intercept	0.938	< 0.001	0.912	< 0.001	0.58	0.01
Professional Development						
Principal received specified hours of AS-related professional development this year					0.58	0.01
Principal attended all or most leadership team training and network meetings this year			0.134	< 0.001		
Model Developer Support						
School has external consultant who assists in implementing schoolwide improvement programs					0.05	0.047
School Support						
Teachers strongly agree "teachers are committed to using AS"			0.181	0.052		
District Support						
District gives the school support needed to implement schoolwide programs	0.246	0.009				
Descriptive Variables						
Principal's highest degree					0.11	0.019
Percent reduced-price lunch eligible students	2.92	0.004				

Table J.3—Continued

ACCELERATED SCHOOLS MULTIPLE REGRESSION MODELS (N = 36)	Curriculum		Methods of Instruction		Governance	
	Multiple Regression Coefficient	<i>p</i> -value	Multiple Regression Coefficient	<i>p</i> -value	Multiple Regression Coefficient	<i>p</i> -value
Percent African American			-0.28	0.013		
Percent free or reduced-price lunch eligible students					0.24	< 0.001
Multiple R-squared	0.35		0.6		0.68	

Core Knowledge Support of Implementation Results

Table J.4
Support Indicators and Descriptive Variables Correlated with the Implementation of Core Knowledge

CORE KNOWLEDGE BIVARIATE ANALYSES (<i>N</i> = 42)	Curriculum			Governance		
	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value
Professional Development						
Teachers received specified hours of CK-related professional development this year	0.384	0.185	0.016			
Model Developer Support						
Frequency principal met with external consultant				0.292	0.159	0.064
Resource Requirements						
Principal disagrees "school has insufficient funds to support full implementation of CK"	0.422	0.149	0.013			
School Support						
Principal agrees "most teachers are fully committed to using CK"	0.491	0.17	0.002			
Principal agrees "most parents are supportive of CK"	0.6	0.246	0			
Teachers strongly agree "principal is committed to using model"	0.388	0.245	0.015			
Teachers strongly agree "teachers are committed to using CK"	0.556	0.403	0			
Descriptive Variables						
Teachers' level of control	0.456	0.19	0.002			
School climate	0.39	0.237	0.011	0.28	0.162	0.073

Table J.4—Continued

CORE KNOWLEDGE BIVARIATE ANALYSES (<i>N</i> = 42)	Curriculum			Governance		
	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value
Locale	-0.351	-0.047	0.033	-0.333	-0.042	0.044
Number of years as principal				-0.400	-0.021	0.012
Percent minority				0.326	0.331	0.049
Percent limited English proficiency				0.282	0.756	0.074

(EMPTY cells indicate no significant relationship with that component.)

Table J.5
Multivariate Regression Models Describing Core Knowledge
Implementation

CORE KNOWLEDGE MULTIPLE REGRESSION MODELS (N = 42)	Curriculum		Governance	
	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value
Intercept	0.47	0.086	0.38	0.311
School Support				
Principal agrees "most parents are supportive of CK"	0.19	0.002		
Descriptive Variables				
School climate	0.17	0.022	0.23	0.007
Number of years as principal			-0.02	0.019
Percent minority			0.356	0.023
Multiple R-squared	0.45		0.33	

Direct Instruction Support of Implementation Results

Table J.6
Support Indicators and Descriptive Variables Correlated with the Implementation of Direct Instruction

DIRECT INSTRUCTION BIVARIATE ANALYSES	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value	Correlation	Simple Regression Coefficient	<i>p</i> -value
Feedback on Instruction									
Teachers receive weekly formal feedback on teaching from district staff	0.281	0.19	0.006	0.296	0.245	0.004			
Teachers receive weekly formal feedback on their teaching from school staff	0.208	0.11	0.045						
Teachers receive weekly formal feedback on their teaching from principals	0.208	0.155	0.045	0.239	0.218	0.021			
Teachers receive weekly formal feedback on their teaching from contractor	0.174	0.144	0.096	0.183	0.186	0.079			
Model Developer Support									
Principal agrees "model staff provide adequate support to the school"				0.279	0.167	0.01			
Frequency principal met with external consultant							0.189	0.100	0.085

Table J.6—Continued

DIRECT INSTRUCTION BIVARIATE ANALYSES	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Frequency teacher met with external consultant	0.207	0.069	0.059						
School has external consultant who assists in implementing schoolwide improvement programs							0.23	0.094	0.035
Teachers interact formally with external consultant for implementation of improvement programs	0.233	0.097	0.033	0.246	0.123	0.024			
School Support									
Principal agrees “most teachers are fully committed to using DI”	0.233	0.075	0.048						
Teachers strongly agree “teachers are committed to using DI”	0.200	0.114	0.093						
District Support									
Principal disagrees “state and/or district policies and regulations impede school’s efforts to improve student performance”	0.195	0.054	0.099						
Internal Facilitator									
Teacher met with facilitator specified number of times	0.248	0.086	0.04						

Table J.6—Continued

DIRECT INSTRUCTION BIVARIATE ANALYSES	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Staff member spends time coordinating schoolwide improvement programs as required by model	0.232	0.071	0.055						
Descriptive Variables									
School climate	0.404	0.196	< 0.001	0.181	0.108	0.082			
Teachers' level of control	0.269	0.101	0.009	0.295	0.136	0.004			
Principal's highest degree	0.224	0.069	0.06	0.243	0.086	0.042	0.22	0.065	0.103
Teacher's highest degree (average)	0.279	0.201	0.007						
Student instructional hours per day				0.215	0.089	0.076			
Percent reduced-price lunch eligible students	0.232	1.078	0.047						
Locale				-0.277	-0.042	0.017			
Percent limited English proficiency				0.313	0.456	0.003			
Percent minority							0.291	0.346	0.012
Percent Hispanic students				0.209	0.177	0.073			
Percent black non-Hispanic students							0.265	0.243	0.022
Percent white non-Hispanic students							-0.285	-0.339	0.014

(EMPTY cells indicate no significant relationship with that component.)

Table J.7
Multivariate Regression Models Describing Direct Instruction Implementation

DIRECT INSTRUCTION MULTIPLE REGRESSION MODELS	Curriculum		Methods of Instruction		Student Groupings	
	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value
Intercept	-0.22	0.482	0.49	0.004	0.90	< 0.001
Model Developer Support						
Frequency teacher met with external consultant	0.11	0.016				
Principal agrees "model staff provide adequate support to the school"			0.13	0.027		
School has external consultant who assists in implementing schoolwide improvement programs					0.09	0.033
School Support						
Principal agrees "most teachers are fully committed to using DI"	0.09	0.031				
District Support						
Principal disagrees "state and/or district policies and regulations impede school's efforts to improve student performance"	0.07	0.009				
Internal Facilitator						
Staff member spends time coordinating schoolwide improvement programs as required by model	0.05	0.09				
Teacher met with facilitator 20 times this year	0.15	0.036	0.17	0.063		
Descriptive Variables						
School climate	0.14	0.003				
Teachers' level of control			0.14	0.002		
Teacher's highest degree (average)	0.17	0.007				

Table J.7—Continued

	Curriculum		Methods of Instruction		Student Groupings	
	Multiple Regression Coefficient	<i>p</i> -value	Multiple Regression Coefficient	<i>p</i> -value	Multiple Regression Coefficient	<i>p</i> -value
DIRECT INSTRUCTION MULTIPLE REGRESSION MODELS						
Percent reduced-price lunch eligible students	1.28	0.041				
Locale			-0.03	0.057		
Percent limited English proficiency			0.3	0.041		
Percent black non-Hispanic students					0.21	0.016
Multiple R-squared	0.48		0.31		0.11	

Success for All Support of Implementation Results

Table J.8
Support Indicators and Descriptive Variables Correlated with the Implementation of Success for All

Success for All BIVARIATE ANALYSES (N = 79)	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Professional Development									
Principal received specified hours of SFA-related professional development this year	0.249	0.086	0.029						
Teachers received specified hours of SFA-related professional development this year	0.367	0.202	0.001	0.263	0.148	0.021			
Model Developer Support									
SFA staff visited school specified days during the year	0.244	0.07	0.04						
Principal agrees "model staff provide adequate support to the school"	0.201	0.069	0.093				0.296	0.127	0.012
School has external consultant who assists in implementing schoolwide improvement programs							0.228	0.122	0.056

Table J.8—Continued

Success for All BIVARIATE ANALYSES (N = 79)	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Frequency principal met with external consultant				0.201	0.091	0.093			
Teachers interact formally with external consultant for implementation of improvement programs							0.331	0.153	0.005
Frequency teacher met with external consultant							0.237	0.15	0.047
School Support									
Principal agrees “most teachers are fully committed to using SFA”	0.302	0.079	0.008						
Principal agrees “most parents are supportive of SFA”	0.294	0.097	0.01	0.286	0.101	0.012	0.257	0.094	0.025
Teachers strongly agree “principal is committed to using SFA”	0.436	0.208	0				0.272	0.144	0.017
Teachers strongly agree “teachers are committed to using SFA”	0.341	0.142	0.003	0.196	0.087	0.09	0.259	0.119	0.024

Table J.8—Continued

Success for All BIVARIATE ANALYSES (N = 79)	Curriculum			Methods of Instruction			Student Groupings		
	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value	Correlation	Simple Regression Coefficient	p-value
Internal Facilitator									
Staff member spends time coordinating schoolwide improvement programs as required by model	0.434	0.114	0.004				0.373	0.133	0.014
Principal met with staff member prescribed number of times for SFA this year	0.285	0.082	0.064				0.345	0.135	0.024
Descriptive Variables									
Greater than three years of implementation							0.34	0.214	0.003
							Governance		
School's level of control	0.279	0.082	0.021	0.32	0.1	0.008			
Principal's highest degree	-0.271	-0.079	0.027				Simple Regression		
Enrollment (in 100's)							Correlation	Coefficient	p-value
Teachers' level of control	-0.229	-0.068	0.042				0.235	0.034	0.056
School climate							0.377	0.136	0.001
Percent Hispanic students							0.225	0.135	0.046
							0.238	0.172	0.044

(EMPTY cells indicate no significant relationship with that component.)

Table J.9
Multivariate Regression Models Describing Success for All Implementation

SUCCESS FOR ALL MULTIPLE REGRESSION MODELS (N = 79)	Curriculum		Methods of Instruction		Student Groupings		Governance	
	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value
Intercept	1.82	< 0.001	0.67	< 0.001	1.04	< 0.001	-0.44	0.081
Professional Development								
Teachers received specified hours of SFA-related professional development this year	0.012	0.028	0.13	0.028				
Model Developer Support								
Principal agrees "model staff provide adequate support to the school"								
Teachers interact formally with external consultant for implementation of improvement programs					0.14	0.003		
Resource Requirements								
Principal disagrees "school has insufficient funds to support full implementation of model"	0.04	0.056						
School Support								
Principal agrees "most parents are supportive of SFA"			0.07	0.083				
Teachers strongly agree "teachers are committed to using DI"	0.12	0.015						

Table J.9—Continued

SUCCESS FOR ALL MULTIPLE REGRESSION MODELS (N = 79)	Curriculum		Methods of Instruction		Student Groupings		Governance	
	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value	Multiple Regression Coefficient	p-value
Internal Facilitator								
Staff member spends time coordinating schoolwide improvement programs as required by model	0.05	0.034						
Principal met with staff member prescribed number of times for SFA this year					0.1	0.009		
Descriptive Variables								
Enrollment (in 100's)							0.04	0.011
Principal's highest degree	-0.09	0.006						
Number of years as principal							0.01	0.043
School's level of control			0.1	0.005				
Teachers' level of control							0.18	< 0.001
Greater than three years of implementation					0.23	0.001		
Percent minority							0.30	< 0.001
Pupil/teacher ratio							0.03	0.006
Multiple R-squared	0.4		0.15		0.34		0.41	

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