

Sticking with It: To What Extent and Why do Schools Sustain or Discontinue CSR Models?

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Abstract:

As part of a large, federally funded study of CSR implementation and its effects on student achievement, we engaged in a longitudinal case analysis and survey study of schools implementing one of four CSR reforms (Accelerated Schools (AS), Core Knowledge (CK), Direct Instruction (DI), or Success for All (SFA)) in Florida and Texas. Over the course of the three-year study we found that 65 of 200 schools (33 %) in our study for which longitudinal data are available ultimately dropped or switched their respective CSR designs. This seemed like an alarming number of schools dropping their reform designs, and this paper examines the issues surrounding the decision to discontinue reforms.

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Introduction

More than a decade ago the Department of Education embraced the growing Comprehensive School Reform (CSR) movement by establishing the Comprehensive School Reform Demonstration (CSR-D) Project, which distributed three-year grants to schools proposing to implement a CSR model. The CSR movement is grounded in the theory that school reform must be approached with a comprehensive, research-based strategy that provides an integrated approach to school organization, curriculum, and instruction. This reform movement stands in contrast to prior reform efforts that focused on only part of the school organization such as new textbooks, block scheduling, or targeted assistance programs.

Over the last 10 years of the CSR movement, the use of these designs in schools has scaled up substantially, with thousands of schools having tried the various CSR designs. By 2005, more than 6,700 schools had been awarded grants to implement a CSR collectively accounting for 1.8 billion dollars of funds from the federal government (SEDL). Countless other schools have implemented CSR models with their own school and district funds. A handful of states and districts have also contracted with CSR designers to provide their programs on a large scale to their district's or state's lowest performing schools. The Department of Education has further affirmed its confidence in the CSR approach to reforming low performing schools by including CSR in the landmark No Child Left Behind legislation (2002). The CSR movement has matured into one of the most significant reform approaches in education today.

As the movement's leaders push their agenda to improve schools forward, they are doing so with a measure of concern (Lockwood, Walter and Walawender 2006; Martinez and Harvey 2004; McDermott 2000). To sustain as a movement, CSR must prove to be more robust than most educational reform trends that have generated a seemingly endless turnover of reform approaches (Hess 1999; Tyack and Cuban 1995). However, as the movement has matured it has also been challenged by critics citing the reform's inconsistent effects on student outcomes (Levin 2002; Mirel 2001; Mirel 2002; Pogrow 2001; Pogrow 2002) and the failure of schools to retain the CSR's program over time. Indeed, while more neutral in tone, independent research findings to date warrant some level of concern. Two research syntheses on a variety of CSR designs have found, at best, inconsistent effects of CSR on student achievement levels, identifying few nationally available models that have accumulated sufficient evidence of

achievement effects (Borman et al. 2003; Research 1999). At this point, CSR appears to be at risk of falling into what Hess (1999) has called the “churn” of failed reforms in schools. In this paper, we explore this issue of CSR sustainability in schools and, specifically, investigate the school conditions that are associated with the school’s decision to drop a CSR design in a sample of 200 CSR schools from Florida and Texas.

CSR and Sustainability

Though explicit effort to study the tenure of CSR designs in schools are relatively few and have emerged only recently (Datnow 2005; Hess 1999; SEDL 2003; Taylor 2005), several studies that have explored the implementation of these designs in schools have noted the incidence of schools dropping the designs (Berends, Bodilly and Kirby 2002; Finnigan and O’Day 2003; Lockwood, Walter and Walawender 2006; SEDL 2003). This concern over sustainability dates back to some of the earliest research on these modern school wide reforms presented by (Muncey and McQuillan 1993), who described the implementation challenges for early adopters of the Coalition of Essential Schools model. Since then, the RAND evaluation (Berends, Bodilly and Kirby 2002) of the scale-up and implementation of New American Schools designs found that at least 24% of 172 schools studied discontinued their reform designs within the fourth year of scale-up. AIM under contract for SEDL (SEDL 2003) found that after five years 27 of the 106 schools implementing CSRs in the Southwest under study had discontinued their respective CSR efforts. Datnow’s (2005) case analysis of 13 schools implementing CSRs in one urban district found that only five schools maintained their CSRs at moderate to high levels, whereas six schools abandoned their CSR models altogether, and two maintained the reforms with low implementation levels. And most recently, by the third year of AIR’s national longitudinal evaluation of CSR, approximately one third (130 of 395) of the schools had discontinued their formal relationships with design teams (Taylor 2005).

We, too, happened upon the issue of design sustainability in our study of CSR implementation. As part of a large federally funded study of CSR implementation and its effects on student achievement, we engaged in a longitudinal case analysis and survey study of schools implementing one of four CSR reforms (Accelerated Schools (AS), Core Knowledge (CK), Direct Instruction (DI), or Success for All (SFA)) in Florida and Texas. Over the course of the

three year study we found that 65 of 200 schools (33 percent) in our study for which longitudinal data are available ultimately dropped or switched their respective CSR designs. This seemed like an alarming number of schools dropping their reform designs and we looked to prior research on school reform and CSRs to inform our exploration of the issues surrounding the decision to discontinue reforms.

Understanding Reform Sustainability

Those familiar with educational reform know that the concern over sustainability is not unique to CSR. The history of school reform is littered with reform efforts that have been abandoned in favor of the newest trend in reform, often to cycle back into favor in later years. For every reform like Montessori that has stood the test of time there are dozens of reform initiatives like open schools, whole language instruction, and Dalton schools that have faded to nearly unrecognizable forms or have been completely forgotten over time. Tyack and Cuban (Tyack and Cuban 1995) explain that many times reforms fade because they challenged the very formidable traditional structures of schools – a challenge often taken on by CSR designs as well.

This regular turnover in reform occurs despite repeated pleas that most reform takes years to take hold and produce positive effects on students' academic and affective outcomes. This history of reform provides a vast literature that we coupled with anecdotes from our case analysis to inform our investigation of the conditions associated with schools' failure to maintain their CSR programs. Guided by these sources we shaped our focus around four key factors that potentially influenced the sustainability of CSR in our sample of schools. These factors include (1) support for the reform, (2) stability of the school context, (3) evidence of CSR effectiveness, and (4) conflict with external policy environments.

The importance of support and capacity for the reform

The school context, as the site at which the reform is implemented, is primary among all contexts determining the tenure of a reform in the school (Desimone 2000a; Desimone 2002). Perhaps the most significant elements of the school context are the support for and capacity to implement the reform. Reform observers have long understood the importance of gaining support of the “street level” reformers, the teachers and principals (Desimone 2000b; Finnan

2000; Fullan 1994; Fullan and Stiegelbauer 1991; Turnbull 2002; Weatherly and Lipsky 1977) Support from teachers and principals is of critical importance in the context of CSR because these reform designs require rather substantial effort to implement. In addition to professional development sessions, teachers are, generally, asked to substantially alter their instructional approaches, curriculum, and roles in the governance of the school. Principals must negotiate with their districts, teachers, and parents to create new positions in the school, restructure the school day, and change the roles and activities of their teachers. In addition to overseeing role changes for their teachers, most school reform designs call on the principal to serve as the school's champion of the reform, provide instructional leadership to the teachers, and provide oversight and accountability to teachers as they implement the reform, all of which are often new roles for the principal (Datnow and Castellano 2001; Day 2000; Murphy and Datnow 2003) Moreover principals must play a pivotal role in establishing a sense of trust between the school faculty and the external reform consultants, which Bryk and Schneider (2002) show is important to securing the reform in a school.

Importantly, the changes expected by most CSR designs require more than a passing acceptance of the reform. These reforms require strong alignment between the reform practices and objectives and the values of those in the school. In a study of schools maintaining CSRMs over eight or more years, (2000) found that schools were most likely to continue with their reform efforts when there was political support for CSR, alignment between the school culture and the principles underlying the reform design (or "cultural logic"), and when the reform was well integrated into the daily lives of members of the school community. The importance of internal support and the alignment of the reform with internal goals and values rings across studies of CSR (Datnow 2005; SEDL 2003).

While nearly every CSR design guards against introducing their program into unreceptive schools by requiring schools to verify their support among faculty with at least 80 percent voting for the program. Our case analysis, however, suggests that this vote can, at times, be coerced or made when the faculty has only modest understanding of the changes to come. In addition, we found, as have other reform researchers, that strong support for a reform can quickly fade if demands become too great or larger than initially expected due to underestimating the teacher time required to implement the reform (Ross 1997; Vernez et al. 2004).

While support among the school faculty and administration is essential, previous research has found that district support with resources and professional development (Taylor, 2005) as well as the district's ability to coordinate a community of reforming schools and forum for shared resources can help schools establish and maintain the internal support and capacity that are so important to reform (Gross and Goertz 2005; Vernez et al. 2004). Recent research on schools' improvement efforts in response to accountability has shown that the most coordinated and sustained school reforms are often accompanied by explicit district support and involvement (Gross and Goertz 2005). Just as solid support can facilitate reform, a district's wavering stance, withdrawal of support, or failure to provide the needed resources and accommodations for the CSR design can leave schools in very challenging positions (Bodilly and Berends 1999; Datnow 2005; Taylor 2005).

McLaughlin (1987) explained in her, now classic, paper on reform implementation, the reformers "will" to make change and support for change must be matched with the "capacity" to make the changes the reform requires. Teachers and principals must have or develop a technical capacity – the knowledge and skills needed to engage in new organizational roles, practices, and curriculum content – capable of creating the reform. This technical capacity must either reside in the school staff or, more commonly, be developed through professional development and continuous feedback.

Establishing and maintaining support and technical capacity for the reform is clearly essential for the sustainability of the reform. It is also clear that this support and capacity is a complex process and must be found at all levels of the organization from the teacher to the district.

The need for internal stability

Instability in the faculty and administration in the school serves as one threat to maintaining support for reform in general and potentially keeps a CSR design from getting the traction necessary to become institutionalized in the school (Klingner et al. 2003). Rapid turnover of principals and teachers can easily undermine a reform effort as those previously committed to the reform and trained in the reform strategies leave the school, taking their experience with them (Taylor 2005). Principal turnover jeopardizes the in-school reform

leadership (Murphy and Datnow 2003). In addition, new administrations are often noted for changing the course of reform and changing or eliminating previous reform programs. CSR designs are particularly vulnerable to turnover as these reforms are well known to take a period of three to five years (SEDL 2003) to evolve in a school and can entail specialized knowledge of curriculum materials, require the development of new pedagogical approaches, and require schools to develop relationships that support new governance structures. Losing faculty or administration as these new skills and relationships are growing impedes progress and potentially erodes the school's interest in maintaining the reform.

Just as instability in the faculty and administration may undermine a CSR design, so too can instability and high mobility in the student population. A high rate of student mobility is often associated with challenging school environments. In the context of CSR, student mobility is a particular concern because success with the reform requires coherent exposure to the curriculum and practices endorsed by the CSR design. For example, Cooper (Cooper 1998) found lower rates of reform implementation in schools with higher rates of student mobility. On the other hand, case study analyses also revealed a tendency for some teachers and administrators to view the coherence provided by a single CSR model district wide as a tool for addressing the knowledge gaps that develop as transient students move from school to school within the district.

The reason effectiveness matters

At the heart of the CSR movement is the claim that these programs will help schools improve their students' academic outcomes. The CSR movement grew alongside the accountability movement. Undeniably, these programs are brought into schools – by schools or districts – to improve student outcomes using standards set in their state or district's accountability system. Schools that do not show gains, especially those identified as “in need of improvement” will be more likely to second-guess their use of the CSR design. In a small sample of schools that dropped their models in our study, the failure to show gains ranked in the top four reasons school dropped their model, coming in just behind a lack of support for the model from the faculty. On the other hand, past research has indicated that the perception of improved student outcomes can be a primary motivation for maintaining implementation of a CSR (SEDL,

2003). A school's academic progress during their reform implementation certainly has implications for tenure of the reform.

The importance of policy alignment

Schools never exist as fully independent organizations but instead they operate within a system that interacts with district and state policy (Datnow and Kemper 2003; Marion 1999). These contexts have important implications for a school's reform experience. In addition to these explicit interventions districts make with school reform initiatives, the wide array of district policies on issues including but not exclusive to curriculum, scheduling, and human resources all indirectly impede or facilitate a school's reform efforts. For example, a human resource policy that issues teachers to schools without principal input may undermine a principal's effort to establish a faculty with common vision and goals (Odden and Busch 1998), while a human resources policy that decentralizes hiring to the school will help a principal recruit and hire teachers with educational philosophies and pedagogy that aligns with the reform efforts (Roza 2005). The extent to which schools feel that the broader scope of district policies aligns with their reform efforts is just as important as the direct intervention the district takes with a school's reform.

While the district certainly offers the closest and most regular contact with the school, the state, with its authority status, can have significant influence on schools. The extent to which state policy conflicts with the objectives of the CSR designs has important implications for the tenure of these reforms in schools. More than any other state policy in schools today, state accountability has fueled considerable concern and debate over its influence of school practice and reform. State accountability systems have substantially altered the goals and actions of school (Carnoy, Elmore and Siskin 2003; Massell et al. 2005; O'Day 2002). This policy both compels schools to pursue reform and also provides signals to schools that dissuade schools from continuing with the CSR effort or reprioritize to favor goals that meet accountability demands over all other goals (Datnow 2005). The accountability systems administered by states but associated today with the No Child Left Behind legislation plainly identify schools that are failing to meet the state's expectations for performance. This identification, along with the endorsements for CSR through funding opportunities, prompts schools to pursue CSR designs,

which have been marketed as effective interventions to improve student achievement. The annual measure of performance, however, also sends schools an annual signal of the school's performance and typically conveys these signals with a sense of urgency for improvement. Our case analysis suggests that the academic standards that stand behind the state academic assessments may conflict with the objectives and approaches endorsed by CSR designs in ways that pull schools into a conflict between honoring the CSR design and meeting the state's standards as quickly as possible (Vernez and Goldhaber, forthcoming). As a result, these CSR designs, which are not expected to show gains immediately, must contend with school's annual press for improvement. The extent to which the CSR design aligns – or fails to align – with the timeline for improvement or curriculum content represented on the accountability assessments matters greatly for the sustainability of the CSR design in the school. (Datnow 2005; Taylor 2005).

A comment on financial resources for reform

The financial support for reform is one important element that, unfortunately, we were not able to capture in our analysis. Funding for CSR designs stand out as a potential contributor to the short life-cycle of these reform designs. First, CSR programs can be very expensive for the period in which they are working directly with the design consultants. The annual cost of these programs can reach higher than \$70,000.¹ Schools typically have very little discretionary money available and these funds often must meet a broad range of interests for educational programs leaving CSR designs vulnerable to changes in funding and program interests (Roza 2005). Although schools that receive federal CSR grants are given a designated funding source to pay for the CSR, these grants only last three years. At the end of the grant schools are left with no funds to continue the work that they had begun.

Some argue that the high consultant fees are not permanent and that CSR designs are typically staged to move schools toward the independent use of the designs within just a few years (Borman and Hewes 2002; SEDL 2003). However, researchers examining the “true” cost of CSR have noted that these designs typically require schools to make significant changes and find additional resources to meet the design specifications. Among the hidden costs that are associated with various CSR designs are the full time instructional facilitator position, tutors,

additional planning time for teachers, or team teaching (Levin 2002). While some argue that schools can reallocate existing resources to meet these costs (Fermanich and Kimball 2002; Odden and Archibald 2000) others contend that the resources in schools are not flexible enough to be reallocated to meet these needs and that meeting them can require additional resources or in the very least a savvy coordination of funding streams. Again, we acknowledge the importance of stable and ample funding for CSR reform sustainability, but we do not have adequate data to examine this factor with this research.

Data and Methodology

In this paper, we explore the issues of CSR design sustainability with a sample of Florida and Texas schools identified as implementing CSR designs in the 2001-02 school year. This sample of schools, which was assembled for a larger study of CSR implementation and effects, includes 200 schools participating in one of four prominent CSR designs including Accelerated Schools, Core Knowledge, Direct Instruction, and Success for All for which full longitudinal data were available.² Florida and Texas were targeted for this study because both have several schools using CSR designs and both have school data dating back several years. Schools for the sample were selected at random from lists of participating schools provided by the CSR providers. The sample represents schools with varying characteristics and varying numbers of years implementing their particular reform design.

Data and methods

We investigated how the conditions for schools that dropped their CSR designs differed from those that retained their CSR designs using data from a three-year survey of schools that was supplemented with state-reported data on school characteristics. The survey of schools, which was part of the full CSR study, provides teacher and principal responses on funding for the CSR design, the internal and external support for the CSR design, and their school's experience in implementing the reform, as well as information on the school's climate and background. The survey was administered annually each spring in 2002, 2003, and 2004. While all CSR schools in the sample were selected based on their participation in the designs during the 2001-2002 school year, 36 percent of the schools in our sample reported dropping their CSR

designs in the 2002-03 or 2003-04 school years. As such, the survey provides information about the relevant school conditions from the last year in which these schools worked with their respective CSR designs.

From the three years of survey responses, which were supplemented with school background information, we assembled a dataset that captures the school conditions that existed as decisions were made to retain or drop their CSR designs. For each school reporting that they dropped their CSR design, we represent the school conditions leading to the decision to drop with survey responses and school information from the last year of implementation (either 2001-02 or 2002-03). For all schools that retained their CSR design for the duration of the three survey years, we used that same data from the 2002-03 school year, which was the last year in which we are certain that they retained their CSR design. We then pooled these data to assemble a dataset that reflects the conditions in schools for the most recent year in which a decision was made to drop or retain their CSR designs.

We estimated the probability that schools dropped their design as a function of the contextual elements with logistic models while controlling for relevant school characteristics. Because we have such a limited number of schools in our sample, we added variables successively beginning with the measure of support for the reform and continuing with internal stability, success with the model, and, finally, external conflict. Because several schools exited our study before we could determine whether they dropped their models and we thought it plausible that schools dropping their models may be more likely to quit the study, we were concerned about selection bias. Using selection models, we tested for potential selection bias and did not find this bias to be present in our sample.

Measuring the factors affecting sustainability

The variables used for the analysis include items that reflect a school's support for the CSR design, the school's internal stability, the schools' success with the model, and the conflict between the schools' reform effort and external context, particularly their district and state accountability context. In our analysis, we drew directly from survey responses related to these contexts. We also constructed variables to reflect some of the more difficult concepts to capture with individual survey items.

One constructed variable is our representation of support for and technical capacity in the model. Prior research on the support for CSR implementation often refers to the array of support and capacity elements that can be present in schools, brought to the school from the district, or consultants. Among the many support elements identified in research are knowledge of and skill in pedagogy and curriculum related to the CSR, professional development related to the CSR, planning time for CSR, leadership support (district and school) for CSR, faculty support for CSR, and technical capacity for the reform. One important conclusion in CSR research is that it is difficult to define a “recipe for success” because these elements are difficult to measure and it is generally difficult to accurately attribute outcomes to these complex aspects of schools. Instead of looking at all of the possible support mechanisms in schools, we try to capture the collective result of these support elements with a measure of the extent to which the school is actually implementing the key CSR design elements. Thus, we capture the school’s expression of the support and technical capacity for the CSR design with one measure.

The measures of implementation are composite scores generated from principal and teacher responses to questions about their own and their school’s application of key components of their CSR design. The composite reflects an average score across school respondents on these items that capture design implementation. The score is on a scale of 0 to 2 where a 2 indicates that the school is implementing the key design components of their CSR to the fullest expectation of the design providers and zero indicates that the school is not implementing the key component.

Another set of indicators we constructed is the measures of academic success with the model. We captured a school’s success with the reform with a very simple indicator of academic improvement that might plausibly be considered by school principals and faculty. While as researchers we know that indicators of academic improvement often require fairly complicated value-added or growth models, principals and school personnel will not use such complicated models in determining the progress of their school. To capture the basic analysis made by school personnel, we computed the change in reading and math performance over the three years prior to the school’s dropping their CSR design and represented this change with a simple indicator of positive or non-positive growth.³

The elements of external conflict are all drawn from the survey responses of school principals. All of the conflict measures derive from Likert scale responses. Higher values for these variables indicate greater conflict (weaker alignment) with the external policy or standard. The measure of conflict with the teachers' union has been rescaled into an indicator variable with one indicating that the principal agreed or strongly agreed that the union policy conflicted with reform initiatives. This adjustment was made to correct for an inconsistency that appeared in the survey item across the survey years. Table 1 provides the summary statistics for all variables in the study.

Table 1 Summary statistics for model variables

		Drop N=65	Sustain N=135
Support for CSR design	Level of implementation of model practices	1.0310	1.1124
		<i>s.d.</i> (0.2091)	(0.1964)
Internal stability	Principal change indicator*	0.1538	0.0963
	Percent of teachers new to the school	12.2842	15.4707
		(7.1599)	(10.2488)
	Percent of students transferring in or out of the school	15.2466	15.1909
		(5.9541)	(8.7940)
Success with the model	Indicator of improved reading scores*	0.5077	0.4444
	Indicator of improved math scores*	0.6462	0.4963
External conflict	Alignment of CSR with state math standards (higher values imply less alignment)	0.4897 (0.3697)	0.4698 (0.4051)
	Alignment of CSR with state reading standards (higher values imply less alignment)	0.5456 (0.4357)	0.4703 (0.4159)
	District and state policy impedes school reform	0.7647 (0.5134)	0.7320 (0.5639)
	Teachers' union policy impedes school reform*	0.0923	0.0963

* Numbers indicate the share of respondents in each category.

Results

The models explored in this paper show that the internal conditions for the support of a model represented by the depth of implementation is the strongest predictor of whether a school

will maintain their model. Despite concerns that conflicts with state accountability expectations, conflicts with other state and district policy, it appears that these external factors are not driving schools' decision to drop models. The results of successive models exploring the factors contributing to dropping a model are given below.

Background factors and sustaining the reform

In each of the models examined for this paper, we controlled for several background factors that might potentially impact the tenure of a design in the school. In addition to two factors that indicate a challenging school environment (enrollment and the percent of free and reduced lunch students), we also included indicators for the school's state (Florida or Texas) and the design with which the school is working. Across all models we found that the background factors associated with a challenging school environment did not predict a school's decision to drop a model. There does appear to be significant differences in the sustainability of the four different CSR designs. Variables indicating whether the school was working with AS, CK, or DI have been entered into the model. SFA has been treated as the reference group. The results of the basic model, Model I in Table 3, show that AS schools were the most likely schools to drop their designs. CK schools were more likely than SFA schools to drop their designs but the coefficient estimate is only significant at a 90 percent level of confidence. DI schools, which were least likely to drop their designs, did not drop at statistically different rates from SFA schools. Looking across models 2 through 5, as we accounted for the commitment expressed by implementation, internal stability, achievement success, and external conflict, only AS showed a persistent, statistically significant difference in the likelihood of being dropped than did SFA schools.⁴

Support, stability and the decision to drop a CSR design

The school context is likely the most critical context for the success of a CSR design. We would expect schools expressing little commitment to implementing the CSR design and schools trying to engage in these designs amidst unstable environments to be more likely to set aside their reform designs. The results presented for Model 2 in Table 2 show that some of these factors do play an important role in determining the sustainability of a design in schools. Most

significantly, we found that the more schools expressed their commitment to the model through implementation of the core components of their CSR designs the less likely they were to drop their CSR designs. This is a significant and substantial effect that is also persistent across all models examined in this analysis.

Interestingly, however, factors related to the stability of the school environment were not powerful predictors of the probability of dropping. The results for Model 3 show that only the percent of new teachers showed a statistically significant effect (at the 90 percent level) on the likelihood of dropping and this effect is negative indicating that a higher percent of new hires lowered the likelihood of dropping the CSR design. Despite the concern that a CSR design will not survive a turnover in administration, a principal change did not increase the likelihood of dropping the design when accounting for the level of implementation. To minimize the number of elements in future models, non-significant factors including principal change and percent of student transfers were excluded from subsequent analytic models.

Perceptions of success and the decision to keep a model

We would expect schools to gauge the success of the CSR design in their school as a function of their students' academic progress. Schools seeing progress would be more likely to keep the designs in place, while those seeing no gains would begin to challenge the importance of the design in the school. Interestingly, we do not see this effect playing out in our sample of schools. The results for Model 4 of Table 2 indicate that improved reading scores are negatively associated with the decision to drop a CSR design but this effect is not statistically significant. Improved math scores appear to *increase* the likelihood of dropping a CSR design and this effect appears to be significant at a 90 percent level of confidence. It should be noted that the effect of improved math scores diminishes slightly and becomes less significant when controlling for external conflict. Overall, it does not appear that the failure to show academic improvement increases the likelihood that a school will drop its model.

External conflict and model sustainability

In recent years, concern that state accountability expectations are interfering with high quality reform efforts has received considerable attention. Critics have argued that the press for

immediate results and a focus on specific reading and math skills compel schools to forgo more comprehensive and long term improvement efforts, like those offered with CSR designs, in favor of “quick fix” approaches like test preparation and remediation. To some extent, the research justifies this concern with studies of accountability showing the tendency toward test preparation, narrowed curriculum, and strategic targeting and remediation (citations). Results from our analysis, presented in Table 2, however, suggest that conflict with external policy was not an overwhelming factor in determining whether a school kept or dropped its model. The results presented in Model V of Table 2 shows that a greater sense by principals that state, district or union policies impeded their school reform efforts are not associated with higher incidence of dropping the model. In fact, the coefficient estimates for each of these variables is negative and approaching statistical significance for the variable reflecting a principal’s perceived tension with state and district policy. It seems schools that perceived less imposition by state and district policy dropped their CSR designs at their own discretion.

Table 2: Sustainability of CSR designs

	I. Base Model			II. Implementation Model			III. School Stability Model			IV. Achievement Model			V. External Conflict Model		
	Coef.	S.E./X ²	Odds Ratio	Coef.	S.E./X ²	Odds Ratio	Coef.	S.E./X ²	Odds Ratio	Coef.	S.E./X ²	Odds Ratio	Coef.	S.E./X ²	Odds Ratio
Intercept	-0.522	0.840	-	1.809	1.259	-	2.456*	1.399	-	1.952	1.345	-	2.629*	1.431	-
		0.386			2.063			3.084			2.104			3.373	
Texas	-0.879**	0.353	0.415	-0.782**	0.361	0.457	-0.517	0.376	0.596	-0.674	0.417	0.510	-0.905**	0.433	0.404
		6.197			4.696			1.889			2.617			4.373	
AS	1.485**	0.519	4.417	1.511**	0.530	4.531	1.389*	0.548	4.011	1.497**	0.547	4.466	1.865**	0.584	6.453
		8.191			8.135			6.429			7.493			10.189	
CK	0.790	0.487	2.202	0.434	0.515	1.543	0.207	0.549	1.230	0.368	0.528	1.444	0.490	0.556	1.633
		2.631			0.710			0.143			0.484			0.777	
DI	-0.234	0.413	0.792	-0.404	0.426	0.668	-0.651	0.448	0.522	-0.534	0.437	0.586	-0.522	0.458	0.594
		0.319			0.899			2.112			1.496			1.298	
							-			-					
Implementation				-2.108**	0.852	0.122	2.303**	0.895	0.100	2.273**	0.899	0.103	-2.550**	0.930	0.078
					6.120			6.625			6.396			7.524	
Principal change							0.318	0.515	1.374						
								0.380							
							-			-					
% New Teacher Hires							0.0416*	0.0227	0.959	-0.0326	0.0223	0.968	-0.039*	0.0231	0.962
								3.379			2.132			2.846	
% Transfer Students							0.00016	0.0223	1.000						
Achievement								0.0001							
Improvement- Rdg.										-0.387	0.417	0.679			
Achievement											0.860				
Improvement- Math										0.768**	0.391	2.155	0.576*	0.369	1.778
											3.855			2.439	

Weak Reading	1.086*	0.623	2.964
Standards Alignment		3.039	
Weak Math Standards	-1.310	0.732	0.270
Alignment		3.197	
Distric/State Policy	-0.645	0.414	0.525
Impedes Reform		2.430	
Teachers' Union	-0.363	0.621	0.695
Impedes Reform		0.342	

Goodness of fit statistics for the model results reported above are as follows (with all tests significant at the .05 level):

Model I: Likelihood Ratio $X^2 = 16.873$ (6 df); Score $X^2 = 16.522$ (6 df); Wald $X^2 = 15.258$ (6 df); Hosmer and Lemeshow = 7.499 (8 df); C Statistic = .691.

Model II: Likelihood Ratio $X^2 = 23.201$ (7 df); Score $X^2 = 22.422$ (7 df); Wald $X^2 = 20.086$ (7 df); Hosmer and Lemeshow = 5.713 (8 df); C Statistic = .712.

Model III: Likelihood Ratio $X^2 = 35.383$ (12 df); Score $X^2 = 31.441$ (12 df); Wald $X^2 = 26.614$ (12 df); Hosmer and Lemeshow = 6.678 (8 df); C Statistic = .751.

Model IV: Likelihood Ratio $X^2 = 30.723$ (11 df); Score $X^2 = 28.753$ (11 df); Wald $X^2 = 24.996$ (11 df); Hosmer and Lemeshow = 5.654 (8 df); C Statistic = .730.

Model V: Likelihood Ratio $X^2 = 36.464$ (14 df); Score $X^2 = 33.467$ (14 df); Wald $X^2 = 28.283$ (14 df); Hosmer and Lemeshow = 6.953 (8 df); C Statistic = .751.

Given the press of state accountability on schools, it is logical to expect schools perceiving a significant misalignment between accountability demands and their CSR designs might be compelled to discontinue the CSR design to meet the more pressing demands of accountability. To some extent the pattern of dropping bears this relationship out. Weaker perceived alignment between reading standards and the school's CSR design appears to be associated with a higher likelihood of dropping the model, although the effect is only significant at a 90 percent level of confidence. Weaker alignment with math standards, however, is associated with a lower likelihood of dropping the model, significant at a 90 percent level of confidence. While there is little reason to think that weak alignment with math standards increases a school's commitment to a CSR design, the consequence in the weak alignment with the reading scores reflects the importance placed on reading in the elementary grades. Given that reading is often the core curriculum component of CSR designs, misalignment will be more apparent and more likely to undermine the CSR approach.

Although we found that these external factors potentially influence a school's decision to drop a CSR design, the impact of these factors remain only a shadow of the impact of support and implementation for the design. Our case analysis revealed that these external factors weigh heavily on individual schools, but this analysis suggests that these factors do not trump the internal commitment to the reform. If schools are successful at implementing the reform, they will tend to maintain the reform.

Conclusions

The sustainability of CSR designs is, undoubtedly, a serious concern for individual developers and proponents of CSR as a reform approach. The failure to keep these designs in schools over an extended period of time jeopardizes the potential that these reform designs will demonstrate the improvements in student achievement that are both desired and expected. As one of only a small handful of quantitative studies exploring the sustainability of CSR reforms, our research offers an interesting insight in showing the central importance of a school's success with implementation for the sustainability of the model in the school. Even as schools face challenging internal and external environments and see little evidence that the reform has impacted student scores, schools that are having success with implementation tend to keep their reforms in place. This is certainly good news to designers who have had success implementing their designs and have encouraged schools to give the reform enough time to see results. This

finding, however, may also draw some concern if we think that schools are not picking up on the signals that a reform has not been successful. Unfortunately, this study cannot conclude whether schools keeping the reform despite no evidence of success are in the early stages of reform and thus need to “wait it out” or have been implementing for a lengthy period of time and are keeping the reform despite the its continued failure to show success.

In truth, this research, which we pursued after seeing the problem of sustainability in our sample, has significant limitations. Foremost among the limitation is the inability to adequately capture the role of funding in the decision to keep or drop a model. We propose that other researchers use our work and other previous quantitative and qualitative work looking at the problem of sustainability to design a study that is intended from the start to fully explore the conditions associated with a school’s decision to keep or drop their reform.

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Endnotes

¹ King (1994) and Barnett (1996) developed the initial cost framework for determining full costs of various CSR models, and more recent research by Odden (2000), Odden and Archibald (2001), and Fermanich and Kimball (2002) explains how schools are theoretically capable of funding even the more costly reform designs through reallocation of existing resources (e.g., the dedication of Title I funding) and existing staff reassignments. These approaches, however, have been criticized for not fully accounting for the indirect and implicit costs involved with model implementation (Levin, 2002).

² In total 252 schools using CSR designs were surveyed. However, throughout the three year study, schools the sample suffered attrition leaving only 200 schools in which we could definitively conclude that the school had dropped its model and provide survey data from the last year in which it was active with the model.

³ Florida and Texas report academic performance in two different manners. Florida reports the means scaled score on the state's Florida Comprehensive Assessment of Academic Progress (FCAT). Texas reports the percent of student performing proficiently on the Texas Academic Assessment System (TAAS). We created the dummy indicator for Florida schools based on improvement in the FCAT score over the previous three years. We created the dummy indicator for Texas schools based on increases in the percent of proficient students on the TAAS.

⁴ In fact, accounting for the level of implementation reduced the value and statistical significance of the coefficient on CK, indicating that much of the CK effect seen in the basic model was a result of weaker implementation by CK schools.