

Sustainability Crisis:

Time for Resolution

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Abstract: This article addresses the failure of sustainability of reform efforts in public school systems by reconceptualizing the perplexing notion of sustainability through a case study to discern the skill sets needed of principals to sustain reforms in urban settings. This study draws on perceptual data gathered from principals in 36 schools in one urban district. Findings show a difference in the ranking of skill sets among elementary, middle, and high school principals, suggesting the need for further investigation into the role of vertical continuity of leadership skill and its impact on sustainability. The article examines how leadership preparation programs can develop skill sets needed for leaders to sustain reforms in schools.

Introduction

Despite countless school reform efforts during the last two decades of the 20th century, there are prevailing gaps in academic achievement among different groups of students. While isolated cases where reforms

have impacted student achievement can be identified in the literature, these scenarios, appear to be the exception and not the rule.

A body of research points to the pervasive struggle to close the student achievement gap in schools. Two traditionally held values for public schooling, equity and excellence, have yet to be simultaneously realized in a wide spread fashion in public school systems in this country. Children of poverty as well as children of color have experienced significantly lower levels of school success than their White and more economically advantaged peers, regardless of how that success has been defined (Banks, 1997; Ogbu, 1992). The U.S. public education system continues to be daunted by the chronic problem that children experience differential levels of academic success distributed along race and social class (Hatch, 1998). The student achievement gaps reflect income, race and ethnicity. Large percentages of low-income, African American, Latino, and Native American students are at the lower end of the achievement continuum. Large percentages of middle and high-income White and Asian students are at the other extreme of the continuum (Johnson, 2002).

Acting as catalysts to the school reform movement, practitioners, scholars and politicians alike have advocated statewide standards, benchmark testing, high school exit exams, increased principal and teacher accountability, as well as the realignment of teacher performance systems with student performance. Intervention after intervention, neither individually nor collectively, has done much to close the gap in student achievement. Inarguably, the public education system is faced with a sustainability crisis whose resolution time has come.

For decades, educators have concentrated on improvement of the perceived weaknesses of public schools through a number of reform efforts targeting school and classroom factors. In their zeal to improve conditions of learning for all students, schools often adopt a variety of reform efforts (Knight & Erlandson, 2003). A longitudinal study of the implementation of six reform models in thirteen schools in one urban district concluded that after three years, reforms had expired in six of the thirteen schools; two other schools continued implementing the reforms at very low levels. The remaining five of the thirteen schools were continuing to implement the reform designs at moderate to high levels (Datnow, 2005).

A perusal of the literature on sustainability of large-scale educational reform, with study of specific case examples, offers a disconcerting picture. There are limited examples of reforms that have been sustained over a period of time. The research reflects little evidence of sustained improvement in measures of children's academic achievement and sobering evidence of reforms pulling back from their initial intents (Earl, Watson & Katz, 2003). Furthermore, theories and analyses of educational change

focus on snapshot studies of implementation; little is known about their sustainability. Contemporaneous longitudinal studies rarely extend beyond three to five years and tend to evaluate particular reform initiatives ignoring the resilience of the initiatives to be maintained over time (Hargreaves, 2004). The vacuum in the research literature on sustainability exists in part because most reforms do not last (Tyack & Cuban, 1995).

The obvious question becomes: Why have reform efforts failed to impact student achievement? Or stated differently, why have reform efforts failed to sustain themselves with sufficient rigor in public schools to show some semblance of improvement of student academic achievement results? The complexity of the sustainability issue makes for a multifaceted response.

Educators at all levels of the public school system have seen reform efforts come and go due to shifts in the political tide, turnover in school and district leadership, and/or increases in faddish pedagogical approaches. Persistent in the minds of teachers, school leaders, policymakers, and funders who work to improve education for their students is: How do we ensure that the programs we are implementing will last (Century & Levy, 2002b).

Research on the perils of the achievement gap abound. The role of effective leadership in the deployment of reforms is well documented in the literature. Scarce are the concrete studies theorizing the role of the sustainability of reform efforts to ensure emerging school leaders have the skills, knowledge and dispositions to lead schools in closing the achievement gap.

If we are to finally connect the sustainability of school reform to closing the achievement gap, we must come to view sustainability from a new lens. We must be willing to ask ourselves the difficult and perplexing questions that have evaded us for decades. We must develop reframing skills (Israel & Kasper, 2004) that will afford us the perspectives to observe and capture the nebulous concept called sustainability.

Embedded within this reframing paradigm is what role higher education should play in preparing leaders to sustain reform efforts. Specifically, what skill sets should leadership preparation programs provide to candidates so that school reforms can take? In their monograph, *Leadership Reconsidered: Engaging Higher Education in Social Change*, the authors suggest that all players in higher education can take a more active role in leading their institutions. The monograph outlines steps to take to empower students, faculty, and staff that are relevant to sustainability (Astin & Astin, 2000).

This article will respond to the failure of sustainability of reform efforts in public school systems by re-conceptualizing the perplexing

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notion of sustainability through the highlighting of a study of urban school leaders' perceptions of the skill sets needed to sustain reform. The study is augmented with a review of relevant literature on sustainability. It concludes with how leadership preparation programs can play a vital role in developing the skill sets needed for leaders to sustain academic improvement in schools.

Understanding the Phenomenon

While the theory of sustainability bears evasive traits, attempts at defining the concept abound. Sustainability is more than a matter of persistence over time. It concerns more than the life and death of a change. Sustainability does not simply mean whether something can endure. It addresses how initiatives can be developed without compromising the development of others in the surrounding environment, now and in the future (Hargeaves & Fink, 2000). Also, sustainability is the capacity of a program to withstand shocks over time while maintaining core beliefs and values and using them to guide adaptation to change (Century & Levy, 2002b). In essence, the concept of sustainability is a multidimensional phenomenon that spreads across a spectrum of factors. Indisputably, the complexity of the phenomenon does not permit one single formula or approach to the sustaining of reform efforts in public schools.

Educators have commonly viewed sustainability as program maintenance—embedding a program as designed into a standing operating system. By this definition, however, anything short of a replica is not sustainability (Century & Levy, 2002b). Perhaps it is because of this generally and narrowly held view of sustainability that reform efforts have failed to be successful. School leaders have traditionally lacked the skills to integrate sustainability into their reform deployment blueprints.

Hope of increasing our understanding of the sustainability phenomenon may be on the horizon. The Researching the Sustainability of Reform (RSR) Project, sponsored by the Center for Science Education, focused on the question of how to maintain the gains of an initial educational change process and support continuing reform over time. The objective of the RSR Project was to identify and document factors in school systems that contribute to sustained educational change in science education. The study concluded with the identification of a set of factors that affect the sustainability of science programs in fluid and interrelated ways. The roles these factors play in reform efforts are greatly varied and change over time and location. They reflect the complex school district environments around them (Century & Levy, 2002a). The fluidity of the

variables identified in the study poses worthy implications for the sustainability of reform efforts in general.

Urban Leadership Study

Concerned with a similar question addressed in the RSR Project and guided by the literature on factors that may contribute to sustainability, a study was conducted in an urban school system in the San Francisco Bay Area of California. As part of a doctoral residency requirement, a district office leader embarked on a case study to discern skill sets needed of district principals to sustain reform in urban settings (Evans, in preparation).

During the 2004-2005 school year, the district leader-researcher provided intensive professional development on standards-based instruction to principals. The professional development strategy focused on helping instructional leaders deploy and monitor standards-based instruction in their respective schools with the objective of increasing student academic achievement. Having invested an enormous amount of time and financial resources in this initiative, the leader-researcher was interested in ensuring the sustainability of the initiative. The goal of the study was to identify and document principals' perceptions of skill sets that contribute to sustained educational innovation. The urban leadership study was guided by the following research question: What leadership skill sets are needed of principals in urban settings to improve and sustain student achievement?

Promoters of sustainability cultivate and re-create an environment that has the capacity to stimulate continuous improvement on a broad front. Supporters of sustainability enable people to adapt to and prosper in their increasingly complex environments by learning from the diverse practices of colleagues (Capra, 1997). Additionally, every reform contains an implicit theory of how people learn. This theory is embedded in the way in which staff training and support are designed (Elias, Zins, Graczyk, & Weissberg, 2003).

Methodology

The research was initiated in the fall of 2004. In keeping with a case study approach to data collection, this study focused on attitudinal surveys administered to principals in an urban school district. The survey instrument required one-on-one interviews with principals requesting them to rank an array of leadership skill sets. Thirty-six randomly selected principals participated in the study accounting for 40% of the principal population in the district.

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Conducted by the leader-researcher, the interviews consisted of a discussion where the principal and the interviewer dialogued regarding the challenges of sustainability of reform in their respective schools. After establishing the context, the principals were asked to prioritize and rank a listing of 12 leadership skill sets required to sustain reform in their schools. The skill sets were developed by the leader-researcher based on a literature review of urban leadership traits required to sustain reforms and through his day-to-day conversations with principals of their evolving needs. Principals' responses varied about leadership skills needed for sustainability. Responses were congruent with the critical issues facing their own school. Most principals felt comfortable articulating their priorities of the skill sets within the context of professional development.

As the data were interpreted with a frame for applications in urban settings, two caveats were kept in mind. First, careful consideration was given to the reiteration that the data collection was not an evaluation mechanism of the principal being interviewed. Secondly, it was important for the researcher to identify any distinguishing trends between elementary and secondary respondents.

Findings

In examining principals' perceptions of leadership skills needed for sustainability of student achievement, the principals were asked to rank the skills sets in their order of importance. The skill sets also served the purpose of broad-based professional development topics identified and driven by the district in its efforts to increase student academic achievement. During the interview process, the leader-researcher defined and clarified the skill sets as requested by the principal. Table 1 illustrates the order of ranking by principals in elementary, middle, and high schools.

Elementary school principals ranked teaching and learning as the top leadership skill set needed for improving and sustaining academic achievement in their urban school. Followed by a second ranking for the skills set focusing on student outcomes, principals strongly believed that student academic goals could be achieved if effective teaching and learning were in place. Interpersonal skills rounded off the top three leadership skills sets for the elementary principal group.

With somewhat parallel responses, middle school principals ranked teaching and learning as a top priority leadership skill set needed for sustainability to take hold. This group ranked the focus on student outcomes second, and creating a safe environment third in importance on their list of skills needed to sustain reform. The student discipline

Table 1
Skill Sets Ranked by Principals

Skill Set	Elementary (n=20)	Middle (n=10)	High School (n=6)
Ranking			
Building a Learning Community	9	6	5
Communication Skills	6	9	7
Creating a Safe Environment	4	3	10
Financial Management Skills	11	10	12
Focus on Student Outcomes	2	2	3
Interpersonal Skills	5	8	1
Parent Involvement	10	11	9
Problem Solving	8	7	8
Public & Community Relations	12	12	11
Teaching & Learning	1	1	2
Team Building	7	5	4
Visionary Goals	3	4	6

challenges characterizing urban middle schools may be attributed to the focus of a safe environment for this group.

High school principals, on the other hand, ranked their number one skill set priority as interpersonal skills. Their scale is followed by a second ranking for teaching and learning and a third ranking for a focus on student outcomes. Urban high schools are characterized by sheer size. Perhaps the large number of faculty members and students that interact daily in urban high schools attributes for the principals' top ranking of interpersonal skills. Table 2 reflects the top three ranking of skills sets by the three groups of principals.

Public and community relations and financial management skills

Table 2
Top Three Skill Set Rankings by Principals by Level

Ranking	Elementary	Middle School	High School
1	Teaching & Learning	Teaching & Learning	Interpersonal Skills
2	Focus on Student Outcomes	Focus on Student Outcomes	Teaching & Learning
3	Visionary Goals	Creating a Safe Environment	Focus on Student Outcomes

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were ranked at the bottom of the list of leadership skills needed by administrators for the sustainability of academic achievement. Principals felt these leadership skills were important, but not as critical as other skills when focusing on academic performance. They believed accountability from the community was important to sustaining academic achievement.

Discussion and Conclusions

In establishing the skill sets in a professional development context, this study offers concrete ideas for leadership training in general and specifically for elementary, middle and high school principals. How these skills might translate into readiness of school leadership to sustain reform efforts, should be addressed by further study. Readiness (Illback & Zins, 1995) is a key concept in the sustainability of reforms that dictates, to a large degree, the parameters within which change can take place. An inference can be made that the readiness of urban leaders to sustain reform efforts is contingent on the skill sets they perceive to possess in order to maintain academic improvement in their sites.

While an argument can be formulated that in their aggregate, leadership skill sets contribute to the ability to sustain reforms, caution is needed in generalizing the results of this study. The development of the leadership skill sets and the methodology utilized in this study are valid only in the urban district setting where this study was conducted. However, these skill sets can be replicated as a professional development leadership tool in the sustaining of reforms in other school settings.

Principals interviewed in the study believed that all leadership skills outlined in the study required a minimum level of competency for a well-balanced leadership approach to sustaining school improvement. The principals felt personally responsible for their schools' academic achievement. There was a commitment to excellence and a desire to be the best in the role of leaders as manifested by their focus on curriculum and instructional issues. Principals felt successful at leadership skills pertaining to vision, team building and communication. While teaching and learning ranked the highest of leadership skills needed to improve achievement, the majority of principals believed this was the arena that needed to be intensified and supported by the district.

While the 1990s reflected a shift toward de-centralization in public schools, this study reaffirms the vital role the district plays in improving and sustaining academic achievement. Through systemic leadership approaches (Massell, 2000), strategies for interpreting data, building teacher knowledge and skills, aligning curriculum and instruction and

targeting interventions on low-performing students must be embraced for improving schools if sustainability of reform is to succeed.

The results of this study informed the professional development focus for the district. At the time of the study, the district did not have a unified professional development strategy for principals. The focused and ongoing professional development of principals in this district is the responsibility of the [district] Network Executive Directors with direct responsibility for supervising said administrators. Network Executive Directors design professional development based on the needs of schools in their Network.

At the elementary level, training for the last several years has been on the implementation of the reading program, Open Court, and analyses of data generated from reading and math assessments for student intervention and support. At the secondary level, classroom observations and teacher evaluations have been the focus of professional development. Professional development in the area of leadership varies from network to network.

The findings of this study reflect congruence with the research on effective management of the change process. Front-end time is needed to build constituencies committed to the goals and process of change. The current state of conditions, services, and resources in school systems must be examined honestly; and management capabilities must be set in place to sustain change efforts over time and through changes in leadership (Annie E. Casey Foundation, 1995).

Researchers describe structural issues and management procedures essential for creating integrated, working systems that can deliver educational innovation. Prominent among them is the innovation knowledge base required to avoid the perpetuation of problems in sustaining reform (Diebold, Miller, Gensheimer, Mondschein, & Ohmart, 2000). In their study of sustainable leadership, Hargeaves & Fink (2004) found that the continuous flow of reform efforts resulted in resource depletion. A resulting rush to retirement has created a rapid turnover among principals. In addition, school districts have dramatically downsized support from consultants, assistant superintendents, and other officials, therein leaving principals feeling overwhelmed and alone. Cultures of supervision and personal support for school leaders have been replaced by the depersonalized demands of test-based accountability. Well-structured and intensely focused professional development therefore becomes an imperative if urban districts are not only to maintain their depleted leadership pool but also to sustain their ongoing reform efforts.

The demands of high stakes accountability coupled with budgetary constraints are challenging school leaders to rethink their professional

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development approaches. Today's fiscally conscious climate calls for scrutinizing every dollar invested in the training of staff. The evaluation and transfer of training become increasingly vital so that school leaders can demonstrate the bottom line impact of their financial investments in professional development.

Implications

The core findings of the study in the context of its literature review offer potent implications for district leaders and university leadership preparation programs with regard to their leadership development approaches. Some are described below:

- District leaders and university leadership preparation programs have a clear blueprint of the wide range of skill sets that affect the sustainability of school improvement efforts.
- District leaders and university leadership preparation programs can leverage the skill sets by defining and accounting for sustainability through the lens of its long-term impact on school reform.
- District leaders and university leadership preparation programs must focus attention to the quality of their training programs with explicit strategies for developing leadership skill sets required to sustain reform efforts.

The research affirms these findings. Sustainable improvement requires investment in building long-term capacity for improvement such as the development of leadership skills that endure over time. Furthermore, sustainable leadership recognizes and cultivates many kinds of excellence in learning, teaching, and leading. It provides the networks for sharing these different kinds of excellence in cross-fertilizing processes of improvement (Hargreaves & Fink, 2003).

The University's Role

There is a forming consensus among the sustainability literature on what constitutes a reform as sustained. A reform is considered institutionalized when it becomes a taken-for-granted feature in a given school life (Datnow, 2005). Given the apparent lack of sustainability of reform in public education, what role should leadership preparation programs play in helping school leaders with skills to sustain innovation and begin impacting the student achievement gap? What if higher education were

to take a leadership role, as it did in the space race and the war on cancer, in preparing students and providing the information and knowledge to achieve sustainability? What would higher education look like (Cortese, 2003)?

Higher education has an important role to play in the arena of sustainability. Institutions of higher education prepare most of the professionals who develop, lead, manage, teach, work in, and influence society's establishments. Universities strongly influence the learning framework of K-12 education. The unique academic freedom, critical mass and diversity of skills that higher education possesses enable it to develop new ideas and to engage in bold experimentation in sustainability (Cortese, 2003). Leadership preparation programs are in a posture to help public school leaders address the sustainability crisis that continues to plague them.

Leaders within the movement to educate for sustainability see an opportunity in the convergence of the large-scale systemic reform efforts sweeping our nation. Transformations are appearing in classrooms that have adopted sustainability education as a context for systemic reform efforts. The results of this are bound to affect the shape of higher education in years to come (Wheeler & Byrne, 2003).

Clearly the issue is not the ability of higher education to take on this challenge; it is the will and the time frame for doing so. If higher education does not lead the sustainability effort in society, who will (Cortese, 2003)? Unquestionably, leadership preparation programs are well equipped and armed with research and practice to intervene in the sustainability crisis in public education.

Institutions of higher education have a role to play in helping aspiring as well as practicing leaders develop the skill sets to sustain reform efforts in public education. This role can best be defined as full partners with public school systems where the leadership skill sets are identified; where universities provide the knowledge source as well as research base; and where current and would-be public school leaders can go to acquire them.

Conclusion

The sustainability of educational reforms requires that the school systems reflect the attributes of commitment, congruence, coherence, and continuity (Knight & Erlandson, 2003). Continuity implies consistency in skill sets to sustain reforms for an extended period of time. Continuity further implies the alignment of leadership skill sets throughout the district. The difference in the ranking of skill sets among the three groups of principals in this study suggests the need for further investigation into

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the role of vertical continuity of leadership skill sets and their impact on reform sustainability. Indeed, this study has but scratched the surface of the urban leadership knowledge base needed to sustain reforms.

This paper has responded to the failure of sustainability of education reform through the re-conceptualization of the phenomenon of sustainability by highlighting a study of urban school leaders' perceptions of the skill sets needed to sustain reform. This work has also provided relevant literature on the topic while highlighting the critical role that university leadership preparation programs can play in providing leaders with the appropriate skill sets to ensure sustainability in their work sites.

This body of work has reinforced the multidimensionality that defines sustainability. There is no formula for ensuring sustainability in public education. There is also a clear lack of understanding, coupled with a void in the research literature, on organizational patterns where sustainability may thrive. What is known, however, is that sustainability of a given reform is based on a complexity of a multitude of factors that vary with time and location. It is the leadership skill sets needed for the precise maneuvering of these variables that will ultimately see authentic sustainability of reform in schools. These skill sets can become part of a leader's knowledge-repertoire through a joint venture between public schools and leadership preparation programs.

Inarguably, there is a need for a renewed and vigorous dialogue (Coburn, 2003), not just about the challenges of sustainability, but about strategies for providing schools with the tools they will need to sustain reform. This is especially important after initial influx of resources have dissipated. The sustainability crisis in public education does not have to linger for long. Public schools and university leadership preparation programs know enough to address the crisis. Indeed the time for its resolution is upon us.

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