This report examines the Bay Area School Reform Collaborative (BASRC), which aims to change school culture, enhance educational quality for all San Francisco Bay Area students, and close the achievement gap. Among the tools BASRC provides schools to guide the inquiry process when making decisions about change is the Cycle of Inquiry model. This model requires schools to use data and build capacity to analyze, reflect, and act on the basis of evidence. Evaluation of the first phase of the BASRC examined overall student outcomes and assumptions about cause-effect relationships grounding BASRC's explicit and implicit theories about how and why the initiative will work. Data came from longitudinal case studies of 10 diverse leadership schools documenting schools' experiences with BASRC work and efforts to implement inquiry practices; field-based research with a broader set of 21 leadership schools; surveys of teachers, principals, and reform coordinators; analysis of Review of Progress documents and surveys; and examination of California Department of Education data on school characteristics and student assessments. Leadership schools made progress on closing between-school, but not within-school, achievement gaps, and most schools made progress on inquiry. Lessons learned include: inquiry can change school culture, and significant time is needed to implement inquiry-based reform. (SM)
PHASE 1
1996-2001

Bay Area School Reform Collaborative
Summary Report
October 2002

Center for Research on the Context of Teaching
Bay Area School Reform Collaborative

PHASE 1
1996 - 2001

Summary Report
October 2002

Center for Research on the Context of Teaching
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BASRC History and Goals

The Bay Area School Reform Collaborative was formed in response to a national challenge from philanthropist Walter Annenberg and his $500 million gift to American public education. William Hewlett and the Hewlett Foundation offered $25 million dollars to support the creation of a regional education reform initiative and the Annenberg Foundation matched Hewlett's gift with another $25 million. The Bay Area School Reform Collaborative (BASRC) was created in the spring of 1995 to design and manage the Hewlett-Annenberg Challenge initiative. By the fall of 1999, this $50 million had been matched by $62 million more in public and private funds.

BASRC aims to enhance educational quality for all Bay Area students attending public schools and to close the achievement gap between students of different race, class, and language backgrounds in BASRC schools.1

During its first five years, from 1996 to 2001, BASRC pursued its mission by making grants to support schools’ reform work and by establishing a regional collaborative of member schools, districts, support organizations, and funders. The Collaborative’s design reflected two broad purposes: First BASRC would be a source of funding, support, and pressure on inquiry-based, whole school reform for its grant-funded “Leadership Schools.” Second, BASRC would be a vehicle for scaling up reform in the region by spreading knowledge of successful reform practices within and beyond a larger, regional collaborative of affiliated schools.

BASRC’s design drew upon research-based knowledge and experience with whole school and inquiry-based reform. However, BASRC’s strategy for scaling up regional education reform, and the “intermediary organization”2 created to foster it, were without

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1 BASRC did not overtly call for schools to close the achievement gap until its third year; BASRC changed its mission statement to reflect this goal in 2002.

2 Researcher Joseph P. McDonald defines an intermediary organization as one that lives at the boundaries of the educational system, neither “of” the system nor wholly outside it. It enjoys license—at least on a temporary basis—to cross the organizational boundaries dividing parties whose actions affect children in schools and to serve as a catalyst for change; it is presumed free of ordinary interest and political pressures. The Annenberg Challenge assumed that changing a large and entrenched system like public schooling required an “irregular” organization because the “regular” organizations—schools, districts, states, universities—were too caught up in the status quo to refocus and reform agendas that included their own. As an intermediary, BASRC faced the challenge of developing non-regulatory incentives and accountability for school reform.
precedent. They were invented in response to parameters established by the Annenberg Challenge. BASRC planners took the Bay Area region as a focus for reform, thereby creating a unique locus for large-scale school reform.

BASRC was not only a new addition to the regional landscape, but also one that had little precedent as an intermediary organization. It was not purely a technical assistance organization (the central function of federally-supported regional laboratories, for example), nor was it defined around a particular pedagogical stance (as is the Coalition of Essential Schools), or a subject matter (as is the Bay Area Writing Project); neither was it primarily a regulatory organization (as are regional education offices in New York and other states). Rather, BASRC identified multiple roles as an intermediary: reform champion, educator, political advocate, program developer, and management coach.4

BASRC's operation and experience affords perspective on how this kind of organization functions to support whole school change and to foster regional reform. Evidence concerning BASRC’s theory of changing schools also contributes important new knowledge about the promise, possibilities, and problems of leveraging and spreading inquiry-based change on a large scale.

**BASRC's design and theory of school change**

During the first five years of its work (Phase One), BASRC funded 87 "Leadership Schools" after they successfully completed a rigorous peer-reviewed application process. Schools in Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara counties5 received grants of approximately $150 per student for three to five years. Beyond this cadre of funded Leadership Schools, BASRC's regional membership included an additional 146 (unfunded) Membership Schools, 40 school districts, and a majority of the region's school reform support organizations and funders.

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3 The Hewlett Foundation launched a regional initiative that would both satisfy the scale requirements for an Annenberg Challenge grant and develop capacity for large-scale school reform across schools and districts in the Bay Area. The Annenberg Challenge took the school as the unit of change and required that funding in support of reform go directly to schools, rather than through districts.


A view of school as the unit of change and school culture as a fundamental problem for American education distinguishes BASRC's theory of action from other reforms—for example, state curriculum frameworks and standards, preservice education, off-site professional development, or school size reduction and restructuring. BASRC assumes that schools' responses to any of these popular reform strategies ultimately depend upon conditions of their culture.\(^6\)

BASRC's theory of school change reflects several key assumptions about changing schools:

- Reform must occur at the school level;
- Effective changes in curriculum and instruction link performance standards to students' learning needs in a particular school;
- Commitment and capacity for school change build when data and evidence show that student learning falls short of standards;
- Structural changes serve, rather than drive, schools' change efforts; and
- Teacher learning needs are informed by evidence of their students' learning needs.

BASRC's theory of change positions a "Cycle of Inquiry," or process of continual improvement, as the driving force of education improvement and school re-culturing. It assumes that school reform must begin with a clear and coherent focus on inquiry into student outcomes and their link to school practices. Toward this end, BASRC required its Leadership Schools to determine a "focused effort" for their school's reform effort, such as literacy or student retention, and to allocate BASRC funds toward improving its practices and outcomes in this area.\(^7\) A focused effort, BASRC assumed, would bring coherence to a school's reform work; if done deeply and well, it would impact the entire adult community of the school and students' learning.

\(^6\) Research lends support to this assumption. For example, Fred Newmann and colleagues (1996) found in a national study of restructured schools that only those schools with strong, collaborative teacher communities were using new structures to enhance instruction for students; McLaughlin and Talbert (2001) found that high school math teacher learning communities were using state curriculum guides and professional development opportunities to enhance instruction and student learning, while traditional departments were using standards to fail increasing portions of their students; Cynthia Coburn (2001) found that school communities mediated teachers' knowledge about and responses to state policies on reading instruction in primary grades.

\(^7\) Some schools chose more than one area of focused effort and some chose to work in non-academic areas. Neither of these approaches worked. By the end of year two, BASRC found that although schools that had focused in an academic area were sometimes led to work on school climate as well, the reverse was never true—reform teams that began by working on school climate never got around to examining academics. Schools with multiple foci fared even worse. Many were simply overwhelmed.
While BASRC's flexible funding enabled schools to choose the problem that would focus their reform work and how they used their grant funds, Leadership Schools were required to use an inquiry process as the basis for making these decisions. Among the tools BASRC provided to schools to guide the process, its model of a Cycle of Inquiry has remained the centerpiece—a representation of its theory of action for school change.

The Cycle of Inquiry as an interconnected system

Over time, BASRC increasingly emphasized that the Cycle of Inquiry should operate at multiple levels of the school as an interconnected system. (See Figure 1.) At the school, department/grade, and classroom level, the inquiry process should operate to manage and bring coherence to change efforts and, most importantly, to support teacher learning and reflection about relationships between teacher practice and student outcomes. BASRC contends, “[The interconnection of cycles at these levels] was also intended to strengthen the personalization and individualization of support for students, as well as to bring the focus on the achievement gap/underperforming groups closer to the classroom. Finally, these cycles at multiple levels were meant to help teachers make meaning around the school cycle in regards to their own day-to-day practice.”

The Cycle of Inquiry requires schools to use data and build capacity to analyze, reflect, and act on the basis of evidence. Schools' success in using the Cycle of Inquiry depends in part upon technical capacity—their ability to obtain or develop data, to analyze data, and to make sense of the data in terms of practice. The capacity for a faculty to build and use knowledge through data-based inquiry depends further upon the strength of their school community and leadership.

The first two steps in the inquiry cycle consist of identifying a problem and focusing a question for investigation. The next step is to identify measurable goals. This step recognizes that establishing measures and setting specific targets for change are critical to assessing the success or failure of an action. The fourth and fifth steps entail creating and implementing a plan of action—connecting knowing to doing. The sixth step requires collecting data and analyzing results of the action taken. Finally, the cycle returns to the first step of defining or refining the problem statement in light of new evidence. Simply put, BASRC assumed that the Cycle of Inquiry would enable schools to identify key areas for reform and to evaluate their reform actions in terms of evidence of their consequences for students. In this model of reform, schools build knowledge for continuous improvement.

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*BASRC internal memo, February 12, 2001.*
Figure 1: Cycle of Inquiry (2001): The engine of BASRC’s theory of school change

1. Identify problems and area of academic focus based on data as entry point.
2. Define the Focused Effort
   - What are we going to do about...
   - Gaps in student achievement relative to content standards
   - The causes of those gaps as related to teacher/classroom practice across the entire school
   - Seeking more data through multiple measures
3. Identify Measurable Goals for School and Grade Levels and/or Departments.
   - About gaps in student achievement in relation to standards. (Question A)
   - About classroom/teacher practice linked to California Teaching Standards in order to close gap identified in A question (Question B)
4. Build Concrete Action Plan Both Schoolwide and/or at Grade-Level Departments.
   - Backward plan a timeline
   - Connect workplan through clear thinking, budget and record of agreements
   - Research evidence-based strategies for implementation
   - Plan articulation between grade levels, departments and schools
   - Build systems to manage implementation (communication, leadership development, assessment and governance)
5. Take Action.
   - Do the work of the school-wide action plan by implementing grade levels and/or department cycle of inquiry
   - Select evidence-based strategies for systemic implementation
   - Build connections between grade levels, departments and schools
   - Use systems to manage implementation (communication, leadership development, assessment and governance)
6. Analyze Results from the Data.
   - Complete your cycle of inquiry by reflecting on:
     - Which students made how much improvement
     - Which teachers/teacher practices affected student achievement
     - Which practices work best for which students
     - Community dialogues with stakeholders about work and results
     - Analysis, agreements and decisions guide next steps (New start? Re-evaluation of Theory of Action within Cycle of Inquiry)
7. Closing the Achievement Gap
Research Design and Data Sources

The evaluation uses a “theory of action” approach to assess results of BASRC Phase One. We assess not just overall student outcomes of the initiative, but also the assumptions about cause-effect relationships that ground BASRC’s explicit and implicit theories about how and why the initiative will work. This approach has become increasingly popular for evaluations of education reform initiatives, because it offers the field knowledge of the where, how, and why of the initiatives’ successes and failures along with judgments of whether and how much BASRC made a difference for student outcomes. A theory of action evaluation makes explicit the premises that guide the initiative, specifies the strategies implemented to foster and sustain intended changes, and identifies context conditions that aid or constrain strategies’ effectiveness.

The evaluation design combines breadth and depth of analysis to assess processes and outcomes of BASRC’s theory of action for Phase One. Longitudinal case studies of ten diverse Leadership Schools document schools’ experiences with BASRC work and their efforts to implement inquiry practices. Less intensive field-based research was conducted with a broader set of 21 Leadership Schools included in satellite studies: a study of reforming high schools, a leadership study, and a study of equity-oriented inquiry in a BASRC elementary school. Further breadth of data comes from surveys of teachers in 18 Leadership Schools, of principals of all Leadership Schools, and of all BASRC reform coordinators. Data for all Leadership Schools also come from BASRC 1999, 2000, and 2001 Review of Progress (ROP) documents, a 2001 ROP survey, and California Department of Education data on school characteristics and student assessments.

To address the question of whether BASRC mattered for students in the funded Leadership Schools, we statistically compare SAT-9 standardized test trends for BASRC schools with trends for a control group, a sample of schools carefully matched for student demographics and school characteristics. We also compare trends for

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9 A theory of action is a plan that anticipates a series of likely events and outcomes. Like falling dominos, these events should lead to the planner’s desired result. A theory of action thus requires the planner to consider outside, contextual pressures that can and will impact an initiative’s ability to reach a desired result.

10 A reform coordinator was a teacher leader who was paid from a schools’s BASRC grant to organize and manage the reform effort. Reform coordinators typically collected and analyzed data, arranged teacher professional development, and served as a communications conduit with BASRC.
Leadership Schools and comparison schools on closing within-school gaps in student achievement using California’s Achievement Performance Index data on test scores of racial/ethnic and socioeconomic groups within schools. Evaluation case studies assess a broader range of student outcomes of inquiry-based reform, including students’ sense of respect from teachers, their active role in the classroom, and their class self-efficacy.

Together these data and lines of analysis not only provide a summative evaluation of BASRC’s Phase One payoff for participating Leadership Schools in terms of their students’ progress on basic skills, but also have been used to weigh BASRC’s design for changing schools and of its theory of school change.
BASRC's 1996–2001 OUTCOMES

The Bay Area School Reform Collaborative’s Phase One concluded with important accomplishments and support for its theory of action. Most BASRC Leadership Schools made progress on inquiry-based reform, and those most advanced in using evidence about student outcomes to evaluate and change their practice showed the greatest SAT-9 gains. Overall, BASRC Leadership Schools made significantly greater improvements in their students' performance on SAT-9 basic skills tests than did schools in the evaluation’s control group.11

The pair-wise comparisons of Leadership Schools and their matched counterparts in the control group yield a statistically significant overall advantage for BASRC schools. The trend lines for the two sets of schools in Figure 2 show that, in the aggregate, BASRC Leadership Schools made greater gains than the comparison group over all four years that SAT-9 was administered. Moreover, BASRC schools serving large populations of high-poverty students consistently did better on this standardized assessment than did similar schools in the region.

However, BASRC fell short on some of its Phase One goals. Leadership Schools did not do as well as other Bay Area schools in closing within-school achievement gaps though. High schools provide an exception to this general finding. BASRC high schools did make significant progress in narrowing within-school achievement gaps between economically advantaged and disadvantaged students and between Hispanic and other students relative to both a matched sample and broader regional comparison schools.

BASRC’s activities generally were rated favorably by Leadership Schools, but not all schools had the capacity to take advantage of, or profit equally from, the Collaborative—most particularly, those high-poverty schools pressed on multiple fronts. And, while most Leadership Schools made progress with inquiry-based reform, a minority achieved mature or advanced levels of inquiry in the course of Phase One.

11 The control group was defined in terms of strict matching criteria. Schools were screened for reform orientation, as indicated by their successful application for BASRC membership in 1997 or 1998. Then funded and non-funded BASRC schools were matched individually according to their scores on the School Characteristics Index, the California Department of Education’s composite measure of student demographics, poverty, parent education, and school variables such as teacher credentials and staff turnover.
Figure 2: BASRC Leadership Schools show greater SAT-9 gains than matched sample schools

Differences are statistically significant based on paired comparisons of SAT-9 trends for each BASRC Leadership School and a Membership School matched on the 1999 School Characteristics Index. The school's overall NPR score is calculated from scores in three subjects: Reading, Mathematics, and Language.

These data attest to BASRC's impact on student outcomes over the course of Phase One. At the same time, the Leadership Schools have not made extraordinary gains on SAT-9 when compared to schools in the Bay Area more generally (see figures on the following pages). The discrepant results from control group comparisons versus comparisons with broadly similar schools in the region suggest that BASRC schools faced greater challenges to improvement on the state's assessment than most Bay Area schools.

**BASRC Leadership Schools made progress on closing between-school achievement gaps**

To assess BASRC’s success in closing achievement gaps in the region, we focus on SAT-9 gains of Leadership Schools serving the largest proportions of poor and minority students relative to other Bay Area schools serving the same student populations. Did BASRC Leadership Schools do better than comparison schools in improving the academic achievement of traditionally low-performing students? Also of interest is Leadership Schools progress, relative to their regional counterparts in serving more advantaged students since BASRC aims to promote reform and improved student outcomes across diverse Bay Area schools. For these analyses, Leadership Schools were grouped into thirds according to a) percent students eligible for reduced-price meals b) percent English Learner students, and c) percent African American students. The same cut points were used to generate norms for schools in the matched sample, Bay Area, and state. Student achievement gains are reported as the difference between a school’s mean SAT-9 NPR score in 2001 and in 1998.
Results are generally positive, if not strong in terms of absolute differences. Figures 3 to 5 show consistent results for each comparison: Leadership Schools serving largest proportions of poor students, English Learners, and African American students outperformed the matched sample schools. Further, schools serving moderate and low proportions of these student groups made greater gains than comparable non-BASRC Bay Area schools. Leadership Schools' relative progress in promoting student achievement is evidence that BASRC is both increasing student achievement and narrowing the achievement gap between schools in the region.

Figure 3: SAT-9 gains from 1998 to 2001 by school poverty: Leadership Schools versus comparison groups

Figure 4: SAT-9 Gains from 1998 to 2001 by English Learners: Leadership Schools versus comparison groups
Bay Area School Reform Collaborative

Figure 5: SAT-9 gains from 1998 to 2001 by African American Students: Leadership Schools versus comparison groups

<table>
<thead>
<tr>
<th>Percent African American Students</th>
<th>BASRC Leadership Schools (N=26,29,26)</th>
<th>Matched Sample BASRC Membership Schools (N=28,25,30)</th>
<th>Non-BASRC Bay Area Schools (N=365,311,261)</th>
<th>All California Schools (N=2886,1843,1532)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (&lt; 3.6 percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium (3.6-9.6 percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High (&gt; 9.6 percent)</td>
<td></td>
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</tr>
</tbody>
</table>
BASRC Leadership Schools lag on closing within-school achievement gaps

Leadership Schools have made less progress in closing within-school gaps than comparison groups at the same grade level. Leadership Schools fall short of the progress made by both matched sample schools and other Bay Area schools in closing achievement gaps between disadvantaged and advantaged students and between Hispanic and non-Hispanic students within their schools (Figures 6 and 7, respectively). This result is puzzling given BASRC's consistent emphasis on this goal and in light of evidence just reported of Leadership Schools' strong overall achievement trends. Also, the gap-closing trend data for 1999-2001 run counter to the more promising evidence from the 1999-2000 data.13

The data on gap-closing for socio-economically disadvantaged students and Hispanic students reported in Figures 6 and 7 show Leadership Schools to be lagging in relation to both matched-sample schools and other Bay Area schools. The exception is for high schools, where Leadership Schools are similar to matched-sample schools and outperform other Bay Area high schools. BASRC elementary schools and middle schools show lower rates of closing achievement gaps between 1999 and 2001—with higher proportions of schools not closing gaps in either 2000 or in 2001 and lower proportions of schools closing gaps for two consecutive years.

12 California's official test, the Stanford Achievement Test, 9th edition, which tests basic skills in core academic areas, was adopted in 1999 as part of the Public Schools Accountability Act, and also includes an Academic Performance Index (API). California's API database includes only three years of schools' SAT-9 data disaggregated for student groups (earlier results were reported for SAT-9 NPR data over four years). Analyses for all 87 Leadership Schools' progress in closing within-school achievement gaps are not possible given the state's rules regarding the reporting of API scores disaggregated by student demographics. Disaggregated data are provided only for schools with a significant number of any given student group—"socio-economically disadvantaged" (students eligible for free meals or students with two parents who did not graduate from high school), Hispanic, or African American—and its counterpart (non-disadvantaged or Hispanic or African American). Only a few BASRC Leadership Schools have sufficient numbers of both African American students and non-African American students to qualify for disaggregated API data; therefore, within-school analysis of gaps are not possible. Disaggregated API data for Hispanic students are available for only 43 Leadership Schools across all grade levels; 17 BASRC schools are ineligible because they have a majority of Hispanic students and insufficient numbers of non-Hispanic students. Data for socio-economically disadvantaged students are available for only 53 Leadership Schools.

13 CRC, October 2000.
Figure 6: Closing the within-school achievement gap: Socio-economically disadvantaged students

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=30)</th>
<th>Matched Sample Schools (N=27)</th>
<th>Other Bay Area Schools (N=381)</th>
<th>All California Schools (N=3283)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=10)</th>
<th>Matched Sample Schools (N=9)</th>
<th>Other Bay Area Schools (N=100)</th>
<th>All California Schools (N=793)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=13)</th>
<th>Matched Sample Schools (N=14)</th>
<th>Other Bay Area Schools (N=42)</th>
<th>All California Schools (N=571)</th>
</tr>
</thead>
</table>

- □ Gap narrowed only in 1999-2000 or 2000-2001

Figure 7: Closing the within-school achievement gap: Hispanic and white/Asian students, 1999-2000 and 2000-2001

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=20)</th>
<th>Matched Sample Schools (N=18)</th>
<th>Other Bay Area Schools (N=250)</th>
<th>All California Schools (N=2213)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=7)</th>
<th>Matched Sample Schools (N=7)</th>
<th>Other Bay Area Schools (N=81)</th>
<th>All California Schools (N=668)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>BASRC Leadership Schools (N=16)</th>
<th>Matched Sample Schools (N=14)</th>
<th>Other Bay Area Schools (N=54)</th>
<th>All California Schools (N=561)</th>
</tr>
</thead>
</table>

- □ Gap narrowed only in 1999-2000 or 2000-2001
Finally, evidence regarding how the level of implementation of inquiry practices schools achieved affected the closing of the achievement gap is mixed. A statistically significant effect is shown for closing the achievement gap for Hispanic students: Leadership Schools that were relatively advanced in Inquiry Practices in 2001 were somewhat more likely to have made progress on closing the achievement gap for Hispanic students (see Figure 8). However, no inquiry effect is shown for closing the achievement gap for socio-economically disadvantaged students.

Figure 8: Closing within-school achievement gaps: Strength of school inquiry practices

<table>
<thead>
<tr>
<th>School Inquiry Practices</th>
<th>Did Disadvantaged Students Narrow the Achievement Gap?</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (N=15)</td>
<td></td>
</tr>
<tr>
<td>Low (N=19)</td>
<td></td>
</tr>
<tr>
<td>High (N=14)</td>
<td></td>
</tr>
<tr>
<td>Low (N=15)</td>
<td></td>
</tr>
</tbody>
</table>

0% 20% 40% 60% 80% 100%

- Yes in either 2000 or 2001
- Yes in both 2000 and 2001
- No in either 2000 or 2001

Data on schools' Inquiry Practices are from the Reform Coordinator Survey (N=52); only schools with API data for the relevant groups are included.

**Most BASRC Leadership Schools made progress on inquiry**

BASRC's annual Review of Progress (ROP) in 1999, 2000, and 2001 tracked all Leadership Schools' progress on implementing inquiry practices and developing systems to support and sustain inquiry. The ROP required schools to document activities, accomplishments, and goals, and was intended to provoke reflection, mutual accountability, and planning for the future. The peer review process used a school's documented work as evidence for evaluating practice and determining its progress on inquiry-based reform. Each school was assigned one of four possible scores of **beginning**, **emerging**, **systematic**, or **sustainable** based on BASRC peers' evaluation process using a rubric scoring system across five dimensions of school
practice. These scores provide an aggregate assessment of BASRC school reform outcomes for all Leadership Schools. Although schools began their affiliation with BASRC at different times and with different levels of readiness for inquiry-based reform, all were expected to make steady progress toward systematic and sustainable inquiry practice.

A comparison of BASRC schools’ 1999 ROP ratings with their 2001 ratings shows patterns of progress on inquiry-based reform over a two-year period (see Figure 9). The data show steady progress on inquiry among most BASRC Leadership Schools. More than half of all schools advanced from one stage to another over two years or maintained a systematic rating (61% of schools were rated in 1999 and 2001; 62% of schools were rated only in 1999 and 2000). Notably, among those schools for which 2001 ratings are available, the number rated as systematic jumped from 10% in 1999 to 53% in 2001.

Figure 9: BASRC Review of Progress ratings for BASRC Leadership Schools through 2001

<table>
<thead>
<tr>
<th>2001 Rating</th>
<th>1999 Rating</th>
<th>TOT ALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Emerging</td>
<td>4 (8)</td>
<td>18</td>
</tr>
<tr>
<td>Systematic</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>TOT ALS</td>
<td>12 (8)</td>
<td>49 (34)</td>
</tr>
</tbody>
</table>

Numbers in parentheses are schools that did not apply for BASRC Phase Two funding and thus for which 2001 ROP ratings are not available. The table shows their ROP ratings in 1999 and 2000.

Apparent in patterns of schools’ advance on ROP ratings is the difficulty schools had moving from emerging conditions of inquiry to systematic conditions. Whereas most (85%) of the 20 schools rated beginning in 1999 progressed at least to emerging within one or two years, just over half (59%) of the 32 schools rated emerging in 1999 advanced to systematic in two years.
LESSONS FOR THE FIELD

ASRC Leadership Schools affirm the power of evidence-based strategies for changing school workplace culture and provide strong support for the claim that teachers and administrators need evidence about school-level patterns of performance in order to consider such fundamental issues as curriculum choice, resource allocation, and strategies for change.\(^\text{14}\) As BASRC's theory of school change asserts, teacher learning communities are both created by and essential to school inquiry. We saw that school-based teacher communities can be the site and source of inquiry into practice, sharing of knowledge, and collective responsibility for student achievement.\(^\text{15}\) Further, Leadership Schools' maturity on inquiry practices predicts student gains on the SAT-9.

Inquiry can change school culture

BASRC aimed to change school culture, and evidence shows that when Leadership Schools gained competence and confidence with the Cycle of Inquiry, their professional culture changed. Where inquiry became an accepted dimension of teachers' professional community, new forms of leadership, accountability for all students, problem-solving skills and expectations about teachers' learning came about. Inquiry associated with a focused effort fostered program coherence among a school's formerly disconnected, fragmented efforts.

When inquiry became part of a school's culture, the audience, scope, and purpose of data collection and analysis changed. Teachers came to see evidence and inquiry as theirs, undertaken to inform their practice—rather than a once-a-year compliance activity. As inquiry practices became more deeply engrained in school culture, teacher communities generated new, more probing, questions and deeper analysis of student outcomes and teaching practices. And in schools advanced in inquiry, this analysis took place at multiple levels—classroom, grade, department and school. Such interconnected inquiry cycles were essential to engaging instructional issues for the whole school. Without these interconnections, inquiry occurred in pockets and did not engage questions of school level practices or instructional decisions.

\(^{14}\) See, for example, Cochran-Smith and Lytle, 2001; Hargreaves and Fullan 1998; McDonald, Hatch, Kirby, Ames, Haynes and Joyner, 1999; McLaughlin and Talbert, 2001.

\(^{15}\) This evidence supports and extends research reported by McDonald, et al., 1999; McLaughlin and Talbert, 1993, 2001; Newmann and Wehlage, 1995; Rosenholtz, 1989; Sergiovanni, 1994; Wagner 2000.
Schools that incorporated inquiry into their culture revealed the value of teacher participation in inquiry. As the community owned its data, it became the basis for open discussion and collective responsibility, thereby overturning traditional "politics of data" that made candid discussion about classroom teaching and learning difficult. The result was a growing perception that teaching and inquiry can and do intersect in fruitful ways and that accountability is a community issue. Inquiry generated appetite for information and knowledge resources as teachers learned more about their school’s focused effort, rethought it in light of student outcomes, and sought assistance in making change. Inquiry likewise built school-level capability to reach out and exploit resources to support teachers' learning and change.

**The time needed to implement inquiry-based reform**

Leadership Schools teach about the challenges of changing school culture through inquiry practices. It is cliché to note that "change takes time." But change of the sort envisioned by BASRC's theory of action implicates complex institutional issues, and poses difficult technical and social obstacles for a school community. Though BASRC recognized the importance of time for change in its multi-year grant strategy, for many Leadership Schools, their three or four years' participation in the BASRC initiative was insufficient for teachers to master the technical skills required by a Cycle of Inquiry, or to adopt the norms and expectations essential to effective collection and use of data as evidence to improve practice.

While most BASRC schools made progress from novice to intermediate level of inquiry practice, few reached an advanced level. In general, those schools where inquiry was most developed at the end of Phase One were schools that came into the BASRC initiative with significant inquiry experience from their prior reform work. In fact they had significantly more time to develop the practices, norms and expertise assumed by BASRC's theory of school change. Schools

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16 Michael Fullan (2001) estimates that simple "project" implementation takes around three years, and that institutional change of the sort BASRC imagines in Leadership Schools takes from five to ten years of hard work. In their evaluation of Henry Levin's Accelerated Schools reform's impact on student test scores, MDRC researchers found that statistically significant gains did not appear until the fifth year among *high-implementation* sites (Bloom, Ham, Melton & O'Brien, 2001). Their data suggest that it takes this long for such a whole-school reform approach to find its way into stable improvements in curriculum and teaching; indeed a temporary decline in student achievement was observed in the third year when schools began to make changes in instruction that were not well worked out. Similar nonlinear patterns of student outcomes were observed for BASRC Leadership Schools; however, since schools were funded in successive cohorts between 1996-1998 and because they differed in prior experience with inquiry-based reform, overall trends in student outcomes over Phase One could not be linked to a general pattern of schools' reform progress. Further, BASRC schools with no prior relevant reform experience had only three to four years of experience with this reform approach at the end of Phase One.
BASRC's "project-based learning" approach to school change challenges traditional notions of teacher professional development in which individual teachers rely on outside resources for improvement without that history appeared to need both more time to establish inquiry norms and practices in the school community and more technical assistance in doing so. Phase One experience underscores the power of inquiry but also raises questions about the kind and level of technical support needed in novice schools to develop effective inquiry practices within three to five years.

**Inquiry and teacher professional community**

BASRC's assumption that collaborative professional cultures are essential to effective school reform is grounded in the research literatures on effective schools, on teachers' work, on the social character of learning, and on organizational learning. Evidence from research on schools and other organizations argues that learning and the capacity to change and improve work depend upon shared standards, collective problem solving, knowledge sharing, and collective action. Changes in the professional culture of schools are thus key organizational outcomes in BASRC's school reform theory.

Building upon the organizational development literature on work redesign, BASRC took a "project-based learning" approach to school change. Its Cycle of Inquiry aims to redefine the work of teaching in terms of collective problem solving, knowledge sharing, and mutual accountability. This assumption challenges traditional notions of teacher professional development in which individual teachers rely on outside resources for improvement. While encouraging schools to exploit knowledge resources in the broader environment, BASRC emphasizes that learning and reform are situated in school communities.

The character of teacher community affected inquiry practices: Weak teacher community and indifferent site leadership undermined inquiry efforts through disinterest and lack of support for the openness and reflection that BASRC's conception of evidence-based decision-making presumed. Turnover of teachers, reform coordinators, and principals displaced inquiry expertise and reform leadership in many schools over the course of Phase One.

**Principal leadership and inquiry**

Conventional understanding of leadership in schools focuses on roles and, in particular, on the principal's role as leader. Yet, as demands on the principalship have grown, and as knowledge of organizational learning and change develops, the field has begun to rethink the question of how schools are led. From the outset, BASRC recognized a need to rethink leadership in schools, and understood this as particularly important in the context of a reform initiative that pushes for significant
change in school routines. Reform that goes deeply into school culture calls for leadership work beyond the usual—for stronger and expanded school leadership that is distributed across actors in the school and sustainable through transitions in formal leadership personnel.

BASRC aimed to distribute school leadership through the Cycle of Inquiry. While principals were not a focus of BASRC's intervention, this theory of school change assumed that school administrators would cultivate shared leadership and would gradually turn over leadership functions to others in the school who served in formal and informal leadership roles, in particular, a BASRC reform coordinator. BASRC's theory of school change implied that principals' roles would move away from instructional leadership that rested on formal authority in the district hierarchy to a practice that can be characterized as leadership of inquiry—asking questions, exploring data, and engaging faculty and the broader community in questions that moved their schools forward. Presumably, administrators' success in making and leading this transition would factor heavily into the success of their schools' reform efforts.

It remains to be seen how inquiry practices will continue over time in schools where proactive principals have been replaced by individuals less invested in evidence-based decision-making or where key faculty leaders have retired or moved on. Such challenges to reform work varied by schools' demographic contexts. Poor urban schools confronted particularly high levels of teacher, administrator, and reform coordinator turnover in addition to all of the daily stresses that supplanted attention to inquiry.

School context and the need for district support

The social, political, and economic context around schools also affected inquiry practices for better or worse. District support for inquiry was a key factor in schools' ability to make progress in generating and using data, and districts varied widely in their capacity or willingness to provide that support. Shifts in state policy derailed inquiry in a number of low-performing schools as high stakes accountability and focus on the SAT-9 moved other indicators off the table, especially local assessments that teachers trusted more as measures of student learning. Leadership Schools' inquiry experiences underscore the limits of focusing on school-level reform without strategic attention to the broader system context.

Inquiry requires resources. Teachers said that their schools' reform coordinators made evidence-based decision-making possible, and that
inquiry practices may be greatly reduced, if not eliminated, absent support for an individual at the school site to manage it. These teacher judgments call into question BASRC’s implicit assumption that, once adopted and made part of school culture, a Cycle of Inquiry could be sustained without additional, dedicated resources.

Key to teachers’ inquiry-based learning was access to appropriate knowledge resources—most often in the form of the “support providers” connected with their focused effort. However, as teachers became more sophisticated consumers of technical assistance, demand for support providers relevant to schools’ reform efforts soon exceeded supply. Phase One experience suggests that support providers are a seriously undercapitalized reform resource.

BASRC’s Phase One experience shows that it is possible to change school culture in significant ways but that changed norms and practices may be fragile. It also points out that the problems of implementing and sustaining evidence-based inquiry are not just technical ones, but also social and cultural issues. Further, the shifts in school and district infrastructure needed to support and sustain all three aspects of inquiry—technical, social and cultural—happened in only a few instances. Yet infrastructure is essential to sustain evidence-based practices in the face of the corrosive effects of personnel churn at both levels as well as uncoordinated or conflictual state policies. Leadership Schools’ experiences highlight the importance of a reform initiative’s simultaneous focus on school reform and larger system transformation. Districts need to be active advocates for their schools’ reform efforts; their relative lack of engagement in BASRC was a critical omission in Phase One.

17 Most Leadership Schools used part of their grants to hire outside consultants called support providers.

18 Some support providers had backgrounds in organizational development and focused on governance structures, standards, and data analysis around the Cycle of Inquiry; others provided in-school professional development around key aspects of child development, literacy, or the teaching of math or science. Review of Progress surveys show that the ratio of schools working with whole school support providers compared to content focused support providers was 2:1.

19 Other analysts of urban school reform also stress the importance of a “bifocal” perspective on both school and district. See, for example, Berends, et al. (2002); Elmore & Burney (1999); Fullan, (2001); Hill et al. (2000).
Reflections at the end of BASRC’s Phase One

In the final analysis, perhaps more important than the gains seen in BASRC Leadership Schools are the lessons the BASRC initiative provides the field about school change and new institutional arrangements to support reform. BASRC’s design drew upon research-based knowledge and experience with whole school and inquiry-based reform.

BASRC’s Phase One contributions can be measured in many ways: In the stronger school communities engaged in evidence-based reform, in the overall gains in student achievement seen across Leadership Schools, in the new conversations and assumptions about school reform emerging in the Bay Area. In the long run, though, most significant for the school reform community may be the new learning and knowledge BASRC produced. The Hewlett-Annenberg Challenge provided opportunity to test out promising ideas on large-scale—ideas about evidence-based change and its power to change whole school culture, strategies for leveraging change on a regional basis, and the role a new intermediary can play in nurturing regional capability for educational reform. The Collaborative’s careful work, thoughtful attention to evidence, and commitment to learning from experience moves the conversation forward in substantial ways and provides crucial grounding for education reform’s next generation.
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