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# CRC

# Developing School Capacity for Inquiry-based Improvement: Progress, Challenges, and Resources

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November 2010

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**Developing School Capacity to Use Data-based Inquiry for Continuous Improvement:**
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## Introduction

Despite growing agreement among researchers and policy makers that evidence-based practice, teacher collaboration, and distributed leadership are key to continuous school improvement, system efforts to create these conditions show little evidence of progress. Although the "terms" associated with these improvement strategies travel well, "the underlying conceptualization and thinking do not" (Fullan, 2005, p. 10), nor do most studies of exemplary schools provide a theory of change for creating their effective cultures and practices. Challenges for change to a school inquiry culture and ways in which internal and external leaders support the change process are little understood.

Our four-year evaluation of inquiry-based reform in New Visions PSO schools aims to address this knowledge gap. Since 2007-08, we have been documenting schools' experiences in implementing New York City's design for inquiry-based reform, based upon the Scaffolded Apprenticeship Model (SAM) pioneered by New Visions for Public Schools and Baruch College School of Public Affairs. SAM offers a theory of change and design for collaborative, evidence-based practice and broad leadership development that has shown promising results in participating schools. Central to the model is its focus on developing school leadership for inquiry team practices of using data to identify student learning gaps and target interventions to bring more students into the school's "sphere of success." Key issues for research are: a) to what extent and how do schools progress toward an inquiry culture? b) what challenges do they face in implementing the model and what supports matter?  and c) how are essential supports developed to enable spreading and deepening inquiry across schools?

CRC's evaluation research is tracking school change on leading indicators of inquiry practices and school culture outcomes, measured through annual surveys of all New Visions schools and through interviews with LDFs about the schools with which they work. Longitudinal case studies of twelve schools provide an up-close look at the change process, documenting inquiry teams' experiences using data to address student learning needs and conditions that support or undermine their progress. Cross-case analyses capture common and contrasting themes across diverse school contexts.

This report summarizes evaluation data through the third year. Its main purpose is to provide formative information that might be useful to NV leaders and staff, particularly concerning facilitator/LDF roles in supporting school change. Building on last year's evaluation finding that facilitator support was a significant predictor of school gains on inquiry team functioning and leadership (Talbert et al., 2009: p. 22-24), we focus especially on the question of challenges facilitators face in providing inquiry support in their schools. Next year's final evaluation report will provide a summative assessment of schools' progress toward inquiry-based reform over four years and estimated student outcomes.

Data analyzed for this report include: 3 years of survey data for inquiry team members in NV schools; interviews with LDFs about the schools they worked with during 2009-10; interview and focus group data for ten case study schools (including large and small high schools, SAM and non-SAM schools, and schools including elementary grades); interviews and focus groups with all 2009-10 SAM facilitators, as well as observations of three of their weekly trainings.

Separate sections of the report:
- Update our ongoing analysis of school trends on indicators of inquiry norms and practices to improve student outcomes;
- Summarize findings regarding challenges schools encounter in implementing the inquiry model and ways in which facilitators support their progress;
- Analyze challenges that SAM facilitators and LDFs face in supporting inquiry teams' progress; and
- Raise issues for practice and further research regarding resources and learning opportunities that make a difference for facilitators' success.

Findings have implications for inquiry work in NYC schools beyond the NV schools included in these analyses.[1] They also have implications for the NV charter schools being launched next year, particularly as they might inform the design of SAM facilitators' work with the new schools. The charter schools will participate in the next generation of SAM, which is being designed to develop and certify school leadership for continuous, inquiry-based school improvement.

Currently, two versions of inquiry are being implemented in NV schools. One is a certification version, the successful completion of which results in an administrative credential through the School of Public Affairs, Baruch College.[2] The non-certification version offers on-site facilitation of inquiry teams' work but not the structured assignments, intensive support, and accountability of the certification program. Our evaluation tracks progress and particular challenges and resources associated with each version.

## School Culture Trends: Year 3 Survey Update

Year 2 evaluation findings featured trends on inquiry practices and student outcomes for four schools that had participated since 2006 in the SAM program to develop leadership for inquiry-based reform. Each of these "mature inquiry" schools[3] showed steady growth on survey indicators of school inquiry culture for the first three years, followed by a plateau in the fourth

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[1] In 2007-08, the New York City chancellor initiated the requirement that all schools create an Inquiry Team charged with using data to improve student outcomes. The policy, part of the Department of Education's *Children First Initiative,* attempts to scale up the SAM model for team inquiry across NYC schools.

[2] SAM III (January 2008 – June 2011) involves teacher teams from 17 schools in New Visions' PSO (11) and in the ESO (7), including four schools that were previously part of SAM II. Nell Scharff of Baruch College trained six SAM III instructors to work with these schools.

[3] For purposes of the evaluation, "mature inquiry" schools are the four schools that have participated in SAM II and SAMIII, involving at least three teams in the program over a period of four years.

year. This pattern supported the hypothesis that school culture change through inquiry takes three years and then is sustainable.

However, longitudinal data available this year for NV schools that began inquiry in 2008 provide only limited support for the hypothesis. Most schools show limited or no progress in developing an inquiry culture. Our 2010 survey of Inquiry Team members provided a third data point for assessing change across a broader sample of schools, most of which were not involved in the SAM certification program. Change was measures using school scores on two indicators of inquiry culture – *Culture of Assessment Use* and *Leadership for Data-based Improvement* (see Appendix B for survey items that make up these scales and Alpha coefficients).

Longitudinal analyses use different school filters depending on the purpose. To assess three-year trends, we include only those NV schools with at least two IT teacher respondents in all three years (N=29 schools). To capture divergence in school trajectories we include schools in which two or more IT teachers responded to the survey in 2010 and in 2008 and/or 2009 (N= 42). To assess trends in principal and facilitator support we use schools with two or more respondents in 2009 and 2010 (N= 30), since survey measures are only available for those years.

### *Schools diverge on inquiry trends*

On average, schools show no appreciable change over three years on survey indicators of school inquiry culture.[4]  However, this overall pattern masks considerable divergence in school trends. Approximately a fourth of the schools show significant gains and a fourth show significant declines on each of the survey measures.  Specifically:
- *Culture of Assessment Use*: 16 schools gained and 10 schools declined significantly (out of 42 schools);
- *Leadership for Data-based Improvement*: 10 schools gained and 12 schools declined significantly (out of 42 schools).

We used information on trends for both measures to create a more robust index of change in school inquiry culture. Specifically, a school's trajectory was defined as advancing or declining if a) it had a statistically significant change on one or both of the measures or b) it had a change of more than 1 standard deviation on both measures. Schools meeting these more conservative criteria of change in school inquiry culture include 9 schools with significant advance and 9 schools with significant decline (see Figure 1).

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[4]  On average, NV schools changed from a mean of 3.92 to 3.98 (5-point scale) on Culture of Assessment Use and from 3.85 to 3.71 on Leadership for Data-based Improvement.

**Figure 1. School Trends on Leading Indicators of Inquiry Culture**
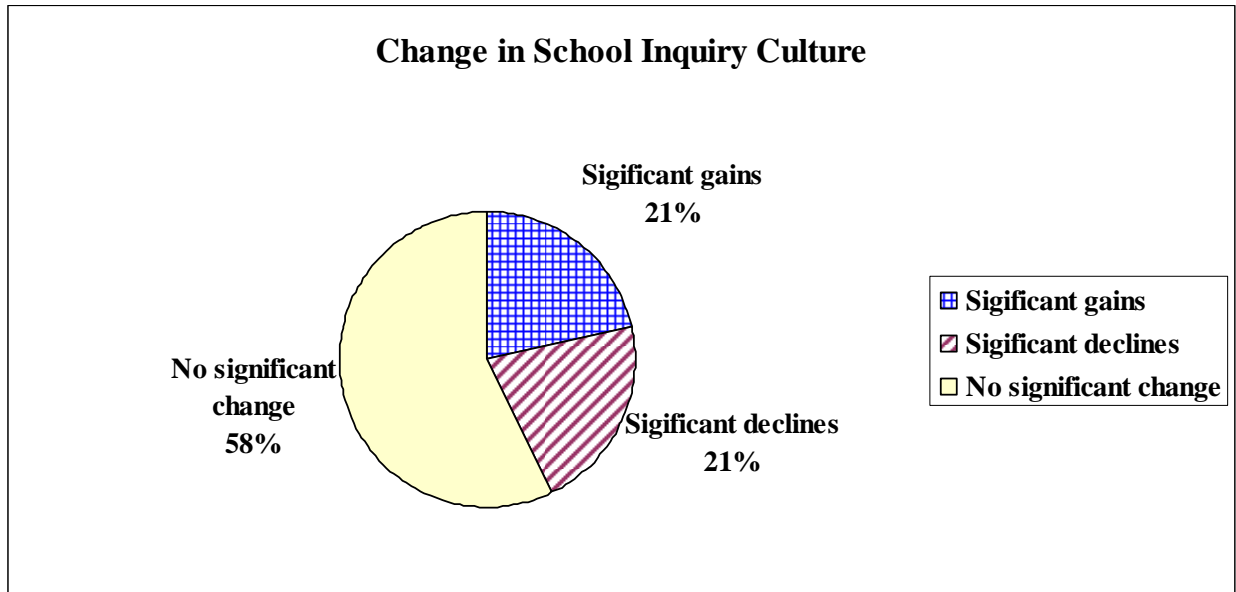


What accounts for these divergent school trends on inquiry culture? Why after two years of implementing the Inquiry Team model and showing some signs of progress last year, have some schools taken a strong dip in team members' ratings of school inquiry practices? Why have most schools (58 per cent) stalled?

There are several plausible explanations. First, in 2009-10 the DOE asked schools to involve most teachers in inquiry teams focused on grade-level and/or content instruction, following the earlier 2007-08 mandate that all school establish a school Inquiry Team. This expectation ratcheted up demands for principal leadership and validation of the inquiry approach to school improvement. Yet prior research indicated that principals varied widely in their buy-in (Talbert et al., 2009). Greater pressure for principal commitment and active support may have exacerbated pre-existing differences in NV schools' leadership for inquiry. Second, it is likely that survey respondents' standards for inquiry practice have increased through their involvement in inquiry, and they may have become harsher judges of colleagues' inquiry practices over time.[5] Third, and related, respondents are likely to have been placed in roles of leading inquiry in their school and may have become discouraged by the challenges posed by resistance among some of their colleagues.[6] The attempt to scale up inquiry teams and practice within NYC schools brings into strong relief the challenges entailed in developing a school inquiry culture, as discussed in the next section.

To further investigate the divergent trends in school inquiry culture, we examined factors that may have influenced change. We compared small and large high schools and found no

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[5]  However, the converse could also apply: experienced inquiry team members might provide a rosy picture of inquiry practices and leadership in their school.
[6]  Evidence from SAM lends some support to this possibility. When graduating teams took on roles of leading inquiry in their school, they often expressed frustration over their colleagues' resistance or reluctance to use data to diagnosis and address student learning needs.

significant differences. We compared schools that have participated in the SAM program versus those that have not and found that only the most mature cohort of SAM schools was more likely to have significant gains.[7] However, principal support of inquiry is a significant factor. Teachers' 2010 ratings of principal support predict whether a school advanced (r=+.31) or declined (r=-.27) on inquiry over the three years. As described in a later section, facilitator support is highly related to principal support (r=.77) and therefore also is likely to have contributed to schools' trajectory on inquiry.[8]

This finding corroborates our earlier finding that *Principal Support* survey ratings significantly predicted school change on inquiry indicators over a two year period. The principal's role in promoting an inquiry culture includes creating ample time for teamwork, supporting the team's access to and use of data on individual student performance, endorsing teachers' inquiry work as important and central to the school's improvement efforts, and legitimizing the team's leadership with colleagues. Not only do these supports matter for team progress on inquiry, but their absence – or decline – might generate a downward spiral in teachers' inquiry practice.

As noted, it is plausible that some principals resisted the DOE's effort to scale up inquiry in their school and have withdrawn their endorsement and support of collaborative inquiry. This would show up as a pattern of significant decline on the Principal Support survey measure. Indeed, teacher ratings of principal support for inquiry team work between 2009 and 2010 declined in just over a third of NV schools.

### *Principal support of inquiry also diverges over time*

Consistent with trends on school inquiry culture measures, NV school scores on the *Principal Support* scale show a flat trend that masks significant divergence in schools' trends. Among the 40 schools with 2009-2010 longitudinal data, 9 (30 percent) had significant gains in support ratings and 11 (37 percent) had significant declines (see Figure 2). Notably, 70 percent of the principals appear not to have increased their support of inquiry-based school improvement during a year when the DOE and New Visions promoted the spread of inquiry across teacher teams.

These patterns suggest that principals reacted differently to the challenge of developing a school-wide inquiry culture. Some appear to have become more proactive in their support of teachers' collaborative inquiry, while others may have resisted or just ritually complied with what they perceived to be an unreasonable or misdirected DOE directive.

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[7] Schools that began SAM in 2008 (the SAM II cohort) were 24 percent more likely to be in the high growth category (p=.11). Later cohorts have had less than three years in the program and therefore may not register significant culture change until next year. Notably, the most recent cohorts of SAM schools have significantly low baseline scores on inquiry culture measures.

[8] Teachers' 2010 ratings of facilitator support correlate with school trajectories, but less strongly than ratings of principal support (+.25 with advance, -.07 with decline; neither coefficient is statistically significant at p<.10).

**Figure 2. School Trends on Principal Support of Inquiry**



Change in Principal Support

No significant change 33%

Sigificant gains 30%

Sigificant declines 37%

Legend:
- Sigificant gains
- Sigificant declines
- No significant change
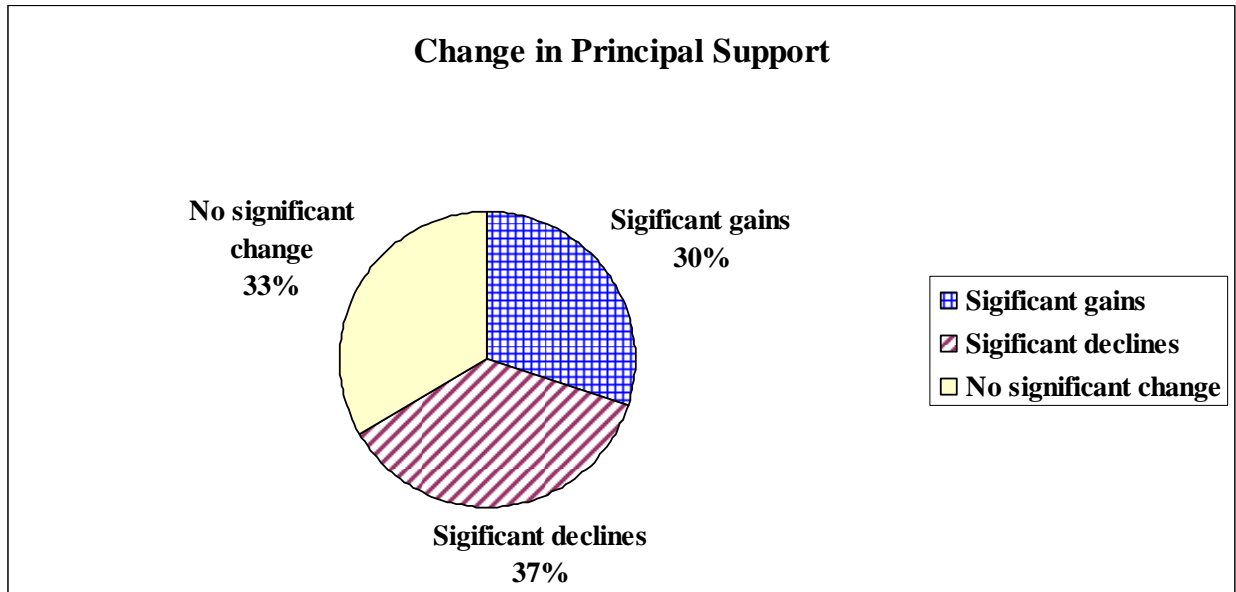
As with divergent trajectories on inquiry culture, differences in school size and grade levels are not associated with gains or declines on a principal's inquiry support. Consistent with the strong correlation between ratings of principal and LDF support of inquiry, we find that over half of the schools that registered a significant decline in principal support for inquiry also showed a decline in facilitator ratings. As highlighted in a later section, one of the challenges LDFs and SAM facilitators face in supporting teachers' collaborative inquiry is promoting a shift in some schools from a compliance mentality to authentic inquiry. This shift is crucial if teams are to experience the benefits of inquiry for developing target students' academic skills and achievement.

***Inquiry team trends on teaching and learning outcomes are generally positive***

Inquiry team members' assessments of their own ability to address student skill gaps show a more positive trend over the past two years. Teachers' self ratings of their preparedness to measure student skill gaps and design instructional responses (see Appendix B for survey scale) increased significantly in nearly half of the schools and declined in only 11 percent of the schools (see Figure 3). This positive trend reflects the learning outcomes of teachers' involvement in the work of school inquiry teams. Teachers' self-ratings on this scale are significantly correlated with their ratings of school inquiry practice and leadership (r=.67 and .63 on the two scales). However, the stronger positive trends for individual outcomes suggest that they precede school outcomes. In other words, teachers who participated in school inquiry teams developed new perspectives and practices that spread to their colleagues only under favorable organizational conditions.

These teachers also see their inquiry practices as benefiting students on a range of outcomes (see Figure 4). On average in 2010, more than half of inquiry team members across NV schools reported that their inquiry work had considerable or major benefits for their students'

**Figure 3. School Trends on Teacher Preparedness to Address Student Skill Gaps**



**Change in Teacher Preparedness to Address Student Skill Gaps**

No significant change 40%

Sigificant gains 49%

Sigificant declines 11%

Legend:
- ⊞ Sigificant gains
- ▨ Sigificant declines
- ☐ No significant change
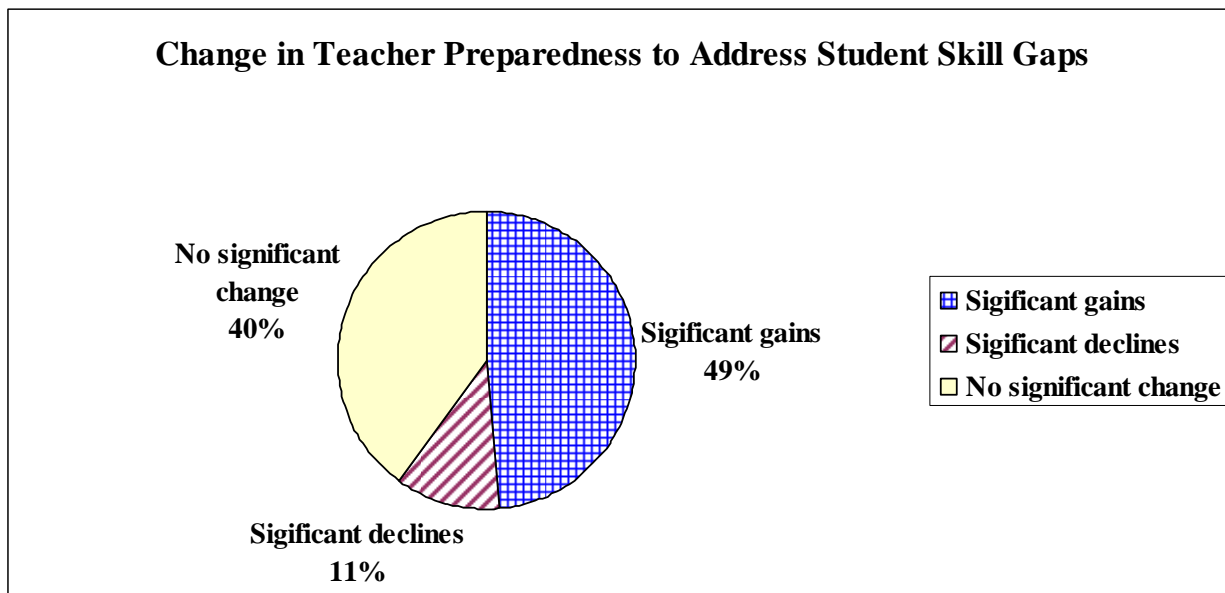
**Figure 4. Teacher Team Ratings of Inquiry Benefits for Student Outcomes: 2010**



Our target students' motivation to attend college

Our target students' motivation to graduate

Academic performance of students in the bottom third performance level in the school

Our target students' academic success beyond this subject area

Our target students' performance in the subject area of our intervention

Our target students' performance on particular learning targets

0    20    40    60    80

☐ Considerable Benefits   ■ Major Benefits

% Considerable or Major Benefits

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academic performance. Most (55 percent) attribute benefits to the target students' growth on the inquiry team's learning targets, and nearly half (46 percent) report effects also on these students' motivation to graduate and attend college.

These results are promising in two respects. First, as elaborated in the next section, individuals' beliefs about struggling students and views of teaching and learning tend to shift in predictable ways through inquiry. They come about through the experience of moving struggling students toward success. Second, to the extent that schools create more inquiry teams at grade levels and/or at subject and SLC levels, culture change could occur from the bottom up, with less dependence on change leadership of the principal and school team. The challenge remains to create the teams and develop internal or external facilitators skilled in nurturing effective inquiry practices within them.

*  *  *  *  *

Field-based research in the evaluation case study schools offers a qualitative look at the nature of changes that occur in schools that develop an inquiry culture, as well as the kinds of shifts in teacher perspectives that come about through inquiry to address the skill gaps of struggling students. Case studies further reveal the types of challenges entailed in developing robust inquiry practices and thus help to interpret the limited extent of school progress – and instances of decline – revealed by longitudinal quantitative data. Our analysis points also to particular resources and supports that make a difference for a team's progress on inquiry to improve student achievement.


**How Inquiry Changes School Culture and Challenges of Change**

When well implemented, collaborative inquiry shifts teachers' instructional perspectives and practice and shifts school culture in ways that bring more students into the sphere of success. We documented these changes in the "mature inquiry" schools –those we studied that were involved in the SAM program for four years (Talbert et al., 2009, 2010). They also occurred within the minority of NV schools that moved significantly toward an inquiry culture over the past three years.

*Teaching and school culture shift through inquiry*

Inquiry team members in nearly half of NV schools became more confident in their ability to address student skill gaps. This growing confidence reflects particular shifts in teachers' perspectives and classroom practices that come about through collaborative inquiry. They occur as a team focuses closely on the skill gaps of struggling students, observes them in classrooms, and develops instruction to meet their learning targets. Our research suggests that these shifts in teachers' perspectives and practice often occur within the first year of implementing the inquiry model and ground school culture change.

- *Shift in focus from teaching to student learning.* Most teachers in the inquiry teams we studied said that they had made a big shift in their thinking about classroom instruction.

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In their own classroom and in observing others, teachers' focus moved from how the curriculum was being taught to what students were learning. They experienced this shift as an important benchmark in the development of their inquiry skills and teaching practice. Many told us that doing low-inference transcripts (LITs) in their target students' classrooms prompted this change in perspective. The tool prompted them to see instruction through the lens of struggling students. They learned that their ideas about "high-quality" teaching did not always mesh with struggling students' learning needs. Teachers became aware that students had often missed critical segments of content instruction provided in earlier grades and that content was not being offered to them in high school courses geared to grade-level standards.

- *Shift from summative to formative assessments of student learning*. Teachers moved from testing for grading purposes to using formative assessments to diagnose student learning needs and develop an instructional response. "Going small" in assessments to identify misconceptions and gaps in student understanding helped them create responses that accelerated the learning of struggling students. Further, teachers moved to better scaffold learning objectives for their lessons and ask students to give them feedback on their learning and struggles with particular content.

- *Shift from external attributions of student failure to instructional efficacy.* Teachers stopped perceiving student failure as something beyond their control. Explanations shifted from "miserable family circumstances" or "personal troubles" to skill gaps resulting from prior and current academic experiences. Addressing the gaps became the main concern. As teacher teams designed effective responses and saw the academic gains students were making, they developed a sense of instructional efficacy that carried over into their classrooms.

Teachers who experience success with struggling students through collaborative inquiry can become strong proponents and leaders of inquiry in their school. The SAM program is explicitly designed to promote inquiry leadership among teachers and new Assistant Principals. In schools where leadership for data-based improvement grows to involve a critical mass of teachers in collaborative inquiry, the school culture shifts in predictable ways. Our best estimate is that roughly one fifth of NV schools have significantly moved in these directions over the past three years. School culture changes we have observed in such schools include:

- *Shared accountability.* As teachers worked in teams to diagnose and respond to learning needs of struggling students, they began sharing responsibility for the success of all students. Teachers moved from thinking about "my" students to "our" students, as well as shifting their attention from successful students to struggling students.

- *Norm of evidence-based practice.* Faculties developed the habit of using evidence of student performance to evaluate and improve instructional decision-making systems. Teachers moved a) from relying on their intuition and past practice to using data to drive their instructional decisions and evaluate student learning; and b) from using summative assessments to measure student outcomes to using formative assessments to diagnose students' learning needs.

- *Distributed leadership.* As teachers began taking leadership roles in their inquiry teams, ideas and norms about school leadership shifted from administrator decision authority and prerogative to widespread agency and responsibility for improving student success. Teacher teams became leaders of inquiry-based decision making for school improvement.

- *Shift toward on-demand professional development in content instruction.* In some schools, inquiry teams converged in their efforts to address skill gaps prevalent among struggling students, prompting a school-wide instructional response. For example, after three years of SLC-based inquiry work, team leaders across a large high school reached consensus that student writing was a high-leverage skill domain. As a consequence, teachers were eager for professional development (PD) to support their instructional responses. The principal brokered a series of on-site PD days with a literacy/writing expert whose work was enthusiastically received. This teacher learning agenda grew out of their diagnosis of student learning needs, rather than from the judgments of administrators about what teachers needed to know. Interestingly as a baseline, the same literacy expert had come to the school several years earlier (before inquiry had surfaced the need for this kind of PD) and, by all accounts, teachers paid little attention. Demand for PD generated through inquiry into student learning needs made all the difference in teachers' readiness to learn and to make changes in their classroom practice. Teachers came to the PD eager to learn from the expert and eager to try out new practices in their classroom.

These shifts in professional norms and relationships both reflect and promote the shifts in teachers' beliefs and perspectives on struggling students and classroom practices described above. For example, developing team norms of shared accountability for using inquiry to meet the needs of struggling students helped individual teachers shift their focus from delivering curriculum to diagnosing students' learning needs, while individual experiences of making a difference for struggling students helped tip the school toward an inquiry culture. The process of developing a school inquiry culture occurs gradually through team and individual efforts to use data to improve their practice. It also depends upon the commitment and strategic actions of administrators, teacher leaders, and facilitators to develop broad and deep inquiry practices in a school.

The fact that most NV schools are not moving steadily forward on the agenda to build a school inquiry culture reflects the many challenges entailed in change.

### Implementing inquiry entails technical, organizational, and cultural challenges

We find that progress on data-based inquiry is not linear. Rather, it is bumpy and cyclical. As teachers move outside their "comfort zone" to develop new assessment and instructional practices, they grapple with the tug of old habits and mindsets. Teachers report moving "two steps forward and one step back," needing to "relearn" a new practice and perspective. They experience an "aha" only to encounter a new challenge. Some teams get stymied by the road blocks they encounter and never get beyond superficial routines of data use; others become highly skilled in using data to continually improve student learning and success.

The resources a team can draw on for tackling the technical, organizational, and cultural challenges for change matter a great deal. Table 1 summarizes these challenges and resources that have made a difference in teams' progress on inquiry-based school improvement.

**Table 1.  Developing a School Inquiry Culture: Technical, Organizational, and Social-cultural Challenges and Resources**

| Challenge for change | Resources for addressing challenge |
|---|---|
| *Technical: Developing inquiry practice* | |
| Using available system data to identify students outside the "sphere of success" and formative assessments to identify skill gaps | Assessment-savvy person on team<br>Data system and summaries that include multiple measures and fine-grained data<br>Data Specialist meetings and network |
| Getting small: focusing on target group of struggling students and honing in on a learning target for instructional response | Skilled facilitator to address resistance and Keep the work focused |
| Assessing student learning outcomes of instructional responses in order to refine them | Skilled facilitator to guide development of pre/post assessment and provide or point to resources for instructional response |
| *Organizational: Developing leadership* | |
| Creating and protecting time for collaboration on inquiry | Principal commitment and priority for collaborative inquiry |
| Distributing leadership and developing teachers capacity to lead inquiry in teams and the school | Principal delegation of authority to teacher leaders and inquiry teams |
| *Social-cultural: Shifting teacher beliefs and norms of teaching* | |
| Shifting from individual to shared responsibility for student success | Administrator focus on results by teacher team; a press for team success |
| Shifting focus from teaching and curriculum delivery to student learning and skill gaps | Low inference transcripts (LITs); administrator assurance that LITs are not for teacher evaluations |
| Shifting teachers' attribution of student failure away from external factors; developing their sense of instructional efficacy | Evidence of team success in accelerating student achievement; team presentations to colleagues and impact on school wide decisions |

Technical challenges

Schools began their inquiry work, whether through SAM or through the DOE's Inquiry initiative, with little prior experience in using student assessment data to evaluate their instruction Most teams struggled to use multiple indicators of student performance, to use assessment data and student work to identify prevalent skill gaps, and to develop and use formative assessments to evaluate the success of an instructional response.

A team's ability to get up and running on inquiry cycles depended on having an assessment-savvy person to lead the work. Data Specialists were key resources in many schools. Through monthly network meetings, they learned the ins and outs of the DOE data system and how to analyze periodic assessments to identify specific skill gaps in student performance. Networking with Data Specialists from other schools also pointed to effective ways of leading school teams and innovative ways of organizing data.

Nevertheless, teams struggled with the push to "go small" and identify a specific, manageable learning target that they could teach to and use to improve their instructional decision making. Not only did they need skills in looking closely at assessment data and student work, but, to many teachers and administrators, the idea of going small to make a big difference was counter-intuitive.

In some schools, the external facilitator (LDF or SAM instructor) helped the team get past frustrations of learning to implement the inquiry model. As one teacher put it: "The process was so frustrating at times that I think if there wasn't an outsider pushing you, we just would have said: 'No. It's not working.' Or, 'These are just the types of kids we get. And we're not going to be able to move them.'  Just having an outsider to keep pushing you and still *be* there was critical."

Organizational challenges

An inquiry team needs regular dedicated time for their work. Yet site administrators manage competing priorities for teachers' time and work outside the classroom, and schools vary widely in both frequency and reliability of time designated for teacher inquiry. Some teams floundered because their scheduled meeting time was often co-opted for another purpose, such as planning for summer school or professional development for a curriculum project. Absent a school priority for collaborative inquiry and protection of the schedule, the work stalls and teachers tend to see it as a DOE mandate and take a compliance mentality.

In order to support collaborative inquiry, principals need to understand its *principles* and believe that it is an effective vehicle for instructional improvement. In schools where the principal was on board and strategic in involving teacher leaders, teams had a better chance of becoming effective at using inquiry to address student learning needs. As noted above, we found a positive statistical effect of Inquiry Team ratings of their principal's inquiry support on growth in the team's functioning over two years.  These findings do not imply that the primary change agent was the principal. Principals rated high on the inquiry team support scale included those who delegated leadership almost entirely to teacher leaders on the team. Indeed, broad or

distributed leadership is fundamental to inquiry-based reform. A principal's willingness to share decision authority is essential if collaborative inquiry is to take root in a school..

Professional culture challenges

Inquiry leaders face opposition and constraints on change that stem from long-standing norms in teaching. Schools differed in how extensive and ingrained traditional norms were when they undertook inquiry, according to their reform histories or founding cultures (e.g., many recently-formed small schools were founded on principles of student-centered teaching and professional collaboration). Nevertheless, all schools are challenged to address one or another kind of constraining professional beliefs and conventions.

The Inquiry initiative's call for *teacher collaboration and shared accountability* for student success pushes against norms of privacy and individual responsibility for classroom instruction. The inquiry model's clear focus on students appears to be a useful vehicle for building trust and "de-privatizing" classroom practice. Facilitators who made a difference held this focus when teachers retreated into maintaining the privacy of their work. Administrators pushed for teachers' shared accountability by focusing on grade-level, department, and SLC performance in reviewing school progress.

*Shifting teacher focus from curriculum delivery to student learning* requires a reframing of high-quality instruction focus on outcomes for struggling students. As noted, teacher teams point to the practice of low-inference transcripts (LITs) in classrooms of target students as a key lever for change. For example, after diagnosing target students' gap in academic vocabulary, a team was taken aback to see in all its LITs teachers' frequent use of terms such as "summarize," "analyze", "synthesize," and "interpret" – realizing that the students could not comprehend such directions or access instructional content. School administrators and team facilitators play important roles in implementing this tool. Success depends on administrators making it clear that the classroom observations are not being used for purposes of teacher evaluation. Facilitators support the developing of teachers' skill of scripting classrooms verbatim, so that student experiences become accessible and available for developing instructional responses. The use of protocols to analyze the LIT allows teachers to track progress in their instructional responses, for example, the use of academic language by students versus by the teacher.

*Developing teachers' sense of efficacy* or confidence so that they can meet student learning needs presents a significant challenge for culture change. Convention has it that student failure is often rooted in difficult family conditions, personality traits like "laziness," and personal troubles that derail their academic progress. Such accounts of poor student outcomes are common among teachers in teams that lack a solid design and support for inquiry. Related are assumptions that student learning is linear and that a student performing well below grade level can never "catch up." According to teacher reports, students themselves were the greatest resource for changing their beliefs. Once a team had succeeded in improving target students' performance on a specific skill or academic practice, such as writing a coherent paragraph, they saw that the students could learn to be successful and that their instruction had made a difference. Team presentations of results to colleagues helped to discredit attributions of student failure to factors outside the school and move the culture toward a sense of collective efficacy and empowerment to make instructional decisions that benefit students.

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Our research on inquiry in SAM schools and other NV schools, as well as broader literature on instructional improvement initiatives, provide evidence that external coaches or facilitators can be key agents in leveraging and supporting change in professional practice (Gallimore at al, 2009; McLaughlin & Talbert, 2006, 2007). This is because routines and habits of mind in teaching, as well as typical instructional and teacher assignment policies in schools, inhibit change – especially toward collaboration in using evidence to improve instruction. (Coburn & Talbert, 2006; Ingram, Louis, & Schroeder, 2004). Implementing the SAM inquiry model entails a significant challenge to teachers' and administrators' thinking about whether and how they can improve the success of struggling students. A skilled and trusted facilitator can create the disequilibrium essential for individuals to change their mind about why students fail in school and how they can make a difference for struggling students' academic success.

Significant quantitative effects of facilitator support on school teams' progress on inquiry indicate that *variation* in the extent and quality of facilitation across NV schools makes a difference for their success.[9] Unless a facilitator has a deep understanding of principles of inquiry and ways in which it challenges team members' thinking and routines, s/he will be unprepared to leverage and support essential shifts. Ensuring that structures and routines are in place is insufficient to move a team beyond ritual practice to serious inquiry work and leadership in the school.

### Challenges Facilitators Encounter in Supporting School Progress on Inquiry

Although research documents the importance of a facilitator in nurturing the development of inquiry practices in teacher teams – and helping them manage the challenges of change – little attention has been paid to the challenges that facilitators face in doing so, or the resources that support their success. Understanding these issues is important for the development of facilitators' knowledge and skills, and the design of resources to support their practice.

This preliminary analysis of facilitator challenges and resources draws upon interviews with LDFs and SAM facilitators for the past three years, as well as case studies of inquiry teams in SAM and non-SAM schools. We intend to extend and enrich the analysis through critique and dialogue with SAM facilitators and LDFs over the next several months.

As a start, we flesh out themes that describe struggles encountered by both kinds of inquiry team facilitators – LDFs and SAM facilitators – in their work across diverse school contexts. Although they share the goal of developing team inquiry practices, each has particular and distinct roles and resources for achieving this objective. These differences help to illuminate commonalities. For example, LDFs and SAM instructors both grapple with the challenge of adapting their work to teams and schools that differ in inquiry readiness. The differences also surface values and limitations of particular facilitator resources. For example, the SAM

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[9]  Inquiry team members' ratings of facilitator support correlate .73 with their reports on inquiry practices in the school in 2010.

curriculum helps to structure and focus team work but also places facilitators in a position of evaluating the work that the teams produce.

### LDFs and SAM facilitators differ in job responsibilities, contexts, and resources

*Leadership Development Facilitators*. LDFs bring a wide range of experience in leading data-based school reform at various levels of the system. Each works with at least one NV school, in a supportive and relational capacity with school leaders, to help ensure that the school meets its instructional and improvement goals, as well as to implement any other pertinent initiatives for school improvement (which include inquiry).[10]

In their role of nurturing the development of effective school inquiry teams, LDFs can draw upon the SAM model and tools, Children First Initiative (CFI) internet and network resources for collaborative inquiry, and New Visions data platforms and systems. LDFs working with multiple schools typically spend at least one day every two weeks in each school and those working with a large school spend several days a week there.

As New Visions employees, LDFs participate in organizational meetings of various sorts, configurations of which have evolved over time. During 2009-10, LDFs were part of a "POD" community of practice that brought together people working in multiple roles in the same school. They met monthly in meetings led by senior NV leaders. Part of the meetings were devoted to LDFs discussing common challenges and milestones in working across various school sites, and developing strategic plans for addressing issues that arise at their schools.

*SAM Facilitators*. SAM facilitators are instructors in a credentialing program run as a partnership between New Visions and the Baruch College School of Public Affairs. They have worked with three cohorts of teams in SAM-cert schools in New Visions PSO and with a cohort in one Empowerment Support Organization (ESO) network. Members of the SAM teams are participants in a degree-granting administrative credentialing program. Facilitators are charged with developing the teams' capacity to use data to diagnose student skill gaps and develop effective instructional responses, to improve instructional decision-making systems in the school, and to lead colleagues in developing a culture of inquiry to do the same. Toward these ends, they are charged with implementing the SAM curriculum and using standards to evaluate teams' and individuals' performance on assignments aligned with the outcomes.

The SAM curriculum has evolved over time to define a sequence of instructional modules that include objectives, tasks, readings, and performance standards. The role of facilitators broadly involves interpreting and helping school teams to enact successfully the SAM program. They lead a weekly seminar that lasts for several hours and includes either multiple teams within a large high school or teams from multiple small high schools.

SAM architects built in a day per week – additional to and typically taking place before facilitators lead their school teams that week – when facilitators convene to develop and test their seminar lesson designs, review teams' work on assignments, and align their use of standards for

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[10] Note that our analysis of LDF roles focuses specifically on inquiry and not other responsibilities that LDFs have at their schools.

evaluating team products. In addition to promoting program quality and consistency, the weekly sessions provide a forum where facilitators raise issues from their work with school teams and administrators and discuss strategies for supporting the change process. This facilitator community of practice, or professional learning community (PLC), extends its communication through the week, as facilitators turn to one another in reflecting on struggles and successes in their seminars and work with particular school teams.

Regardless of their different job contexts and resources, the bottom line that drives facilitators' practice is how they can help develop school teams' capacity to use inquiry to improve their struggling students' achievement.

*Facilitators help shift inquiry teams' thinking*

Our 2010 survey of school inquiry teams captured their ratings of facilitator roles in supporting their functioning as a team. Specifically, survey items tapped the facilitator's role (LDF and/or SAM facilitator in SAM-cert schools) in focusing the group's work and shifting their thinking. Results show strong endorsement of facilitators' efforts to move teams' inquiry practice forward (Figure 5).[11]

**Figure 5. Inquiry Team Ratings of Facilitator Roles in Supporting their Work, 2010**



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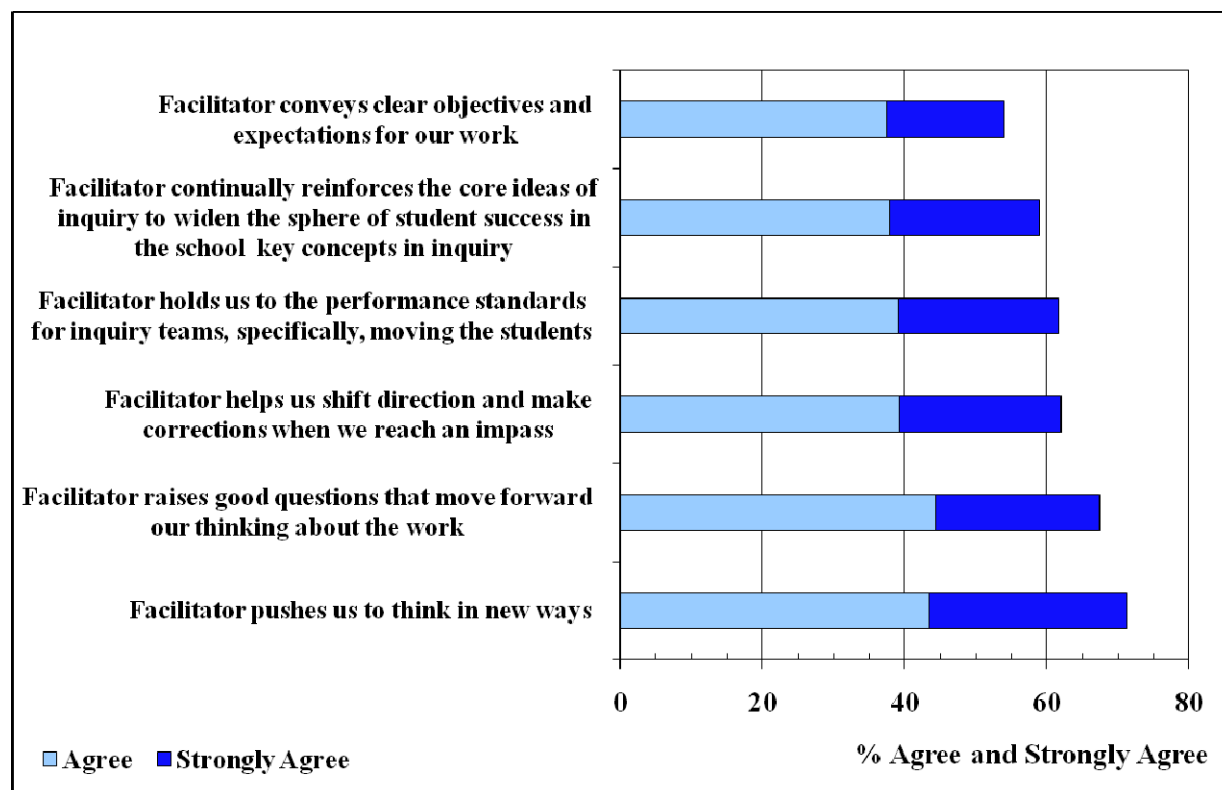
[11] Results reported here are means of school distributions on each item. Percentages differ slightly from distributions of individual teacher responses shown in the survey codebook, Appendix A.

Notably, inquiry team members give highest ratings to their facilitators' role in pushing their thinking in new ways (roughly three-fourths agreed that this happened and advanced their work). This role addresses the culture challenges for change that school teams encounter (see Table 1). The data point to the strategic role an external facilitator can play in creating disequilibrium in their team's thinking about instruction and their school's culture.

Yet LDFs reports uneven success in working with NV schools, and we find strong correlations between teacher survey ratings of school inquiry culture and facilitator support. SAM facilitators also struggle to address particular needs of the school teams in the certification program.

### *Facilitating  inquiry entails technical, organizational, and cultural challenges*

Inquiry facilitators take on the challenges that teacher teams and schools face in their efforts to implement the inquiry model and develop a culture of shared accountability, evidence use, and distributed leadership. Facilitators face their own set of technical, organizational, and cultural challenges in achieving this goal. Table 2 summarizes these challenges and resources that help facilitators to address them.

Technical Challenges and Resources

*Developing focus and priorities.* Evidence suggests that both LDFs and SAM facilitators have struggled to establish a clear focus and priorities for their work with school inquiry teams. They wrestle with the problem of "how much can we delineate things to support all of us being 'the best facilitators we can be' in ways that help us but don't necessarily make us all act like machines?" As facilitators worked to develop clarity on priorities and guidelines for their work with schools, they found that sustained dialogue with colleagues was the most valuable resource. LDFs reported that sharing, learning from, and debriefing with fellow LDFs helped them to interpret their responsibilities and support their work with the schools. Opportunities to work together in small groups helped them learn and understand the tools needed:

> We did a lot of training amongst ourselves during POD meetings…And that was the most effective stuff that we did…Like, for example, learning how to do these HSST reports and the ATS reports…And we just looked at certain reports and we printed them out, and we spoke with our schools how we would interpret them and what the different codes meant and all of that. It was really very effective…keeping that alive and us working together in small groups.

Discussing and learning from their colleagues' experience and expertise was a real benefit: "being able to really talk to other people and see what they were doing with data. [This fellow LDF] is like the brains of data. And you knew who to go to for what. So that was really a support."

**Table 2. Facilitating Inquiry Team Development: Technical, Organizational, and Cultural Challenges and Resources**

| Challenge for facilitation | Resources for addressing challenges |
|---|---|
| *Technical: Developing team inquiry skills* | |
| Establishing focus and priorities for work with team; Learning core inquiry principles | Guidelines and pillars for team inquiry; Facilitator PLC: debriefing practice and refining priorities and strategies |
| Introducing and scaffolding team inquiry tasks and tools | Training in use of data and inquiry tools (ARIS, Data Tracker, LITs); Colleague demonstrations of use of tools with school inquiry teams; SAM curriculum |
| Developing team's skills in designing and using assessments | Assessment design training and tools; Co-developing and acquiring formative assessments for specific learning targets |
| *Organizational: Navigating school context* | |
| Negotiating access and role as facilitator of inquiry team practice | Principal priority for inquiry and authorization of facilitator role; Common planning time for inquiry team meetings |
| Customizing work with diverse schools (e.g., grade level, size, student population, principal support level) | Facilitator PLC: reflection and problem solving around priorities and practices effective with particular school types |
| Gearing facilitation to inquiry team readiness/ developmental stage | Developmental conception of inquiry team practice; Facilitator PLC: dialogue around practices suitable at team readiness levels |
| *Cultural: Addressing team norms and beliefs that inhibit inquiry progress* | |
| Nurturing team trust, collaboration, and shared responsibility for student success | Messages that focus team on student learning (vs teacher quality); Exercises to identify individuals' complementarities |
| Challenging team members' attribution of student failure to external factors; Shifting focus from teaching as curriculum delivery to student learning | Inquiry guideline to "stay small" so that a team can experience success in developing specific student skills and accelerating their learning; Questioning and pushing new ways of thinking about instruction |
| Helping teams spread a culture of inquiry in their school | Readings and analysis of colleague resistance; Identifying what works (e.g., focus on students, reporting inquiry results; Modeling and fishbowls with teams |

Given a pull to provide support to schools beyond inquiry, LDFs found it helpful to identify four pillars as the main foci of their work: student credit accumulation, graduation rate, Regents passing rate, and attendance. Having focused areas of work helped them approach schools with a clear inquiry agenda:

> I think in focusing on those four big-picture goals, I was really able to focus myself more on 'Every time I go to the school, we're going to work on credit accumulation.' Whether that's looking at scholarship reports, going into the classrooms and seeing what's going on there, looking at grading policies, looking at how the kids pass and the teachers' pass rates. All those kinds of things…So it really was a much better year for me as far as keeping really, really focused.

In the case of SAM facilitators, the group actively engaged in a simultaneous process of learning by *and* while doing, training collaboratively and in the field, and worked together on "norming" their own practice and team leadership while developing individual styles. Initially, many facilitators reported a sense of confusion around their precise roles and responsibilities: "In January was the intensive preparation for the February sessions. But we had four sessions before January" where facilitators reported they conducted a lot of inquiry of their own with regards to the specific tools and ways in which to work with teachers on school-based inquiry.

Several key factors created a forum for facilitators to continuously experiment with and co-interpret the complex set of responsibilities associated with their role. These consisted of their community of practice (which met weekly and communicated frequently via email), the experience of "learning by doing," and support within the group and from SAM architects. According to one facilitator, "we kind of went through a process of learning how to do it ourselves." All facilitators pointed to their weekly working meetings as particularly valuable for developing insights that guided individuals' practice in their seminars.

Expressing an initial sense of "mixed messaging" around the goals and implementation of inquiry within a school team, SAM facilitators reported a growing sense of co-interpreted clarity around objectives. In the midst of an evolving DOE inquiry initiative and an evolving SAM curriculum, facilitators had to develop a shared understanding of core outcomes and strategies for their work. They also became clearer about how to construct their roles with school teams: "What is the core?'…'What has to get done?" Facilitators emphasized not only "the importance of reflecting back on what we did," but also of "'norming' as an activity that we continued to engage in as a group as part of our own benchmarking or assessment process." Their weekly sessions keep them on task and clarify purpose: "most important is to make your session about their [teachers'] work…and to make plenty of team time. Worry less about 'covering' everything on the syllabus and focus on their work as the important message."

*Scaffolding team inquiry tools and supporting assessment development.* LDFs had access to a variety of support and inquiry tools to facilitate their work: "I took advantage of the coaches, the ex-principals, former principal coach…you just brought in whatever you could. Because…you don't have that expertise." While having access to a variety of inquiry tools, they found that the data tools were especially helpful: "that mock Regents item analysis tool is phenomenal. And I've used that in every school that I've been in that we've had inquiry work."

Another LDF reported: "I have used the New Visions Data Tracker as a drill down. That's been quite positive." It is necessary for LDFs to have a good understanding of what inquiry tools can do and to scaffold them to meet various teams' inquiry needs at each school. Some LDFs, however, reported limited opportunities to engage with available tools: "I feel like I haven't even had a chance to exhaust the potential tools that we have here…one of our challenges was that we didn't have concentrated time to share tools specifically around inquiry perhaps. We have places to load it; but you need time to talk about it and show it and [how it works.]"

While having access to a variety of inquiry tools, LDFs found a gap in assessment tools that would help school inquiry teams measure progress toward their goal: "So teachers did definitely select a strategy, they definitely implemented it in the classroom, they had a goal in terms of an academic outcome. But the interim assessment piece and the ability to measure real changes along the way was not…because they don't always have the tools." In order to move the inquiry work forward, LDFs supported teachers in designing their own assessment tools, "but the inquiry process itself is hampered to some degree by not really having a great way to measure progress."

By contrast, SAM facilitators' main technical challenge centered on the task of implementing the SAM curriculum while grounding it in teachers' work with their own students in their schools. Many teams struggled with creating measurable and granular learning targets, according to the facilitators and teams themselves. When confronted with issues like the fact that the team was "flailing with their larger purpose/goal" in designing specific target skills, facilitators turned to each other and their trainers for support. For example, in one instance, when "feeling a bit undone before the session – didn't feel as though I really knew my objectives," one facilitator reports that observing their trainer's coaching with a fellow facilitator around the same issue was helpful in deepening an understanding of the coaching task.

According to the facilitators, although "the [SAM] syllabus is very clear about what needs to be covered," they individually "have to make decisions about what to focus on and how much time [they] can 'afford' to give to different topics." One particular challenge that facilitators found themselves up against concerned the more "technical" aspects of the curriculum, like finance. In this instance, although the discussion started "painfully," facilitators found that it "took off when discussing funding priorities for Arne," as a result of selecting appropriate readings and planning meaningful lessons around these. An additional support that required some training on the part of the facilitators was working with teacher participants to utilize ARIS in order to "flag their target population."

Organizational Challenges and Supports

*Negotiating access and role as inquiry facilitator.* LDFs work with teacher teams in their school sites and therefore face a host of issues in negotiating and scheduling this work. Getting school leaders' buy-in to inquiry is especially critical in supporting LDFs' work with teacher teams.

Our annual interviews with LDFs indicate that this is a major challenge in their work. Some had great difficulty getting access to their schools. As one LDF explained: "I was never

really able to make a good connection with the school leader…I didn't really have adequate access to the school. So *all* the work I've done has really been *me* pulling information and doing my updates on how they're doing." Another expressed frustration in trying to find an entry to the schools: "I thought I was really beginning to move the place. But I feel that I'm ending up in the same place as my predecessors [who couldn't get access the previous year]."

In order to get a handle on the distribution and nature of these different LDF experiences, we classified LDF reports on their work with particular schools into three broad categories: Active Involvement, Limited Access or Involvement, and No Access/Resistance.

The "Active Involvement" category includes the schools where LDFs were meeting with inquiry teams regularly and were able to engage and guide them through the inquiry process, as the two following examples illustrate:

> I was working with the SLC directors and the APs, leading those two SLC teams to look at their 2011 kids who are off track, and trying to get them on track or close to, beforehand, and building the capacity of those SLC leaders to understand how to use the data tools…. Because you don't want to be in this triage mode next year.

> Since I've been there I've forced them…I walk in the door and it's like, 'Oh, God, we've got to do inquiry. Yeah, we know, okay'…Actually, they're fabulous. They're so fabulous. So I meet with the…*They* meet. There are three teachers that have been identified. And then they have a team. And they have a core of students. But what they've decided to do is not to…They've identified like... I think one is metacognition, the other one is vocabulary. You know, their spirit and their energy are so focused. And they're doing readings around it. And I'm like, 'Maybe let's not be so broad. Let's bring it down.' But they have to go through a process; and they've just started through it. So they take notes, they follow up.

Schools in the "Limited Access or Involvement" category include those in which the LDF was able to have only occasional or declining time and involvement with inquiry teams. As examples:

> I thought I would be working with their inquiry team, and it didn't materialize. They did not do inquiry with a capital 'I' — (that seems to be the new word), but inquiry with a lower case 'i'… I know where the great teaching is. And what I do there is, I'm there half a day, and we do classroom visits together and do collegial discussion about what it is….So we would talk about it, and then [the principal] would show me what he was sending, and then he sent them. I'm more of a thought partner; that's really my role. He doesn't really need me. And then we talk about administrative stuff and things like that. So that was their inquiry…

> And they have inquiry. But I don't have much say into their inquiry piece.. We were working on math [on a weekly basis].  And [the principal] actually even said to me, "Why don't you come every *other* week for half a day?" I said, 'Fine.'  S/he's fine as a thought

partner… And I really would have liked to have been part of the talk about planning for inquiry.

> Because we really did practically no inquiry work there this year at all…Last year we had a full-blown inquiry team, across grades…Well, a lot of the people that were involved with it left. And the principal, this is his/her second year there…could not get anybody to volunteer to be on the inquiry team…Even for per session. Nothing. Nobody…

The "No Access/Resistance" category includes schools in which the principal and teachers resisted the inquiry process and/or facilitator support, regardless of LDF efforts and initiative to negotiate access. Two LDFs describe their situations with such schools:

> I was never really able to make a good connection with the school leader. S/he's tuned out. I didn't really have adequate access to the school. So *all* the work I've done has really been *me* pulling information and doing my updates on how they're doing.

Using these qualitative distinctions in LDF-school relationships we were able to reliably classify relationships for just 28 of the schools. We investigated whether or not the patterns were related to LDF turnover in assignments to the schools. As Table 3 shows, about two-thirds of NV schools (48 of 72) had a new LDF in 2009-10.

**Table 3. New Visions PSO schools by stability of LDF assignments in 2009-2010**

| LDF status | School had a new LDF | School had the same LDF | Total ** |
|---|---|---|---|
| **New to NV** | 22 | 0 | 22 |
| **Continuing** | 26 | 24* | 50 |
| **Total** | 48 | 24 | 72 |

*Includes one school that had the same LDF in 2007-08 and 2009-10, but not 2008-2009.
**Excludes three schools that did not have an LDF in 2009-10.

LDF turnover appears to have made some difference in successful negotiations with schools, but not much. In schools with stable relationships, 75% of the LDFs report an active role in supporting the school inquiry work; this compares to 44% and 50% for schools with LDFs that moved from another school and that were new to New Visions, respectively. This pattern could reflect the challenges an LDF faces of building trust during the first year of working with a school and/or NV decision to retain a match when the relationship was working well.

*Customizing work with diverse schools.* LDFs face the challenge of accommodating different principal stances on inquiry and being strategic about leveraging change. One LDF described his/her effort to work with a principal and faculty resistant to implementing inquiry:

The principal told me, "My teachers don't want to hear anything more about data." And it took me from September until two weeks ago to actually get him to touch a real child's permanent record…I felt very much that they were totally unwilling to engage. They sent me a list to send you of teachers who have done inquiry work. I've been told that they have department meetings. But somehow I've never been there when they're happening, nor have I ever been asked to come on a different day... I know the math teachers actually map, and I know the math teachers created some sort of assessment which they use to program the children. So there's *something* going on in the math department. But, again, it's not connected to the action research work.

Another LDF encountered difficulties in working with assistant principals: "I would have liked to have been part of the talk about planning for inquiry. But there's a resistance, more by [the] assistant principals." In some cases, assistant principals perceive that a facilitator is moving into their turf of evaluating classroom practice. In such school contexts, an LDF has to take on the role of change agent if inquiry is to move forward in the school. As one LDF put it:

I'll just say what my one big learning is: if the principal does not participate—It does not happen…or it may happen, but it won't have impact on the school…So, to me, it's about saying…'Everybody is participating in this. This is the way we work. It's not about a little project, a little special thing aside. It's really the core of the way we work.'

SAM instructors also manage relationships with principals, and participating schools vary in the extent to which a principal is actively involved with inquiry and team seminars. Principal buy-in and support of SAM and of inquiry as a school/instructional improvement strategy is crucial to teams' progress. In instances where the administration was initially neutral or skeptical regarding inquiry as a support for student learning improvement, facilitators engaged in one-on-one conversations with the principal and sought out their school LDF to facilitate such entrée and discussion. In schools where administrators became actively involved with the SAM sessions and work, facilitators report that they needed to "negotiate roles." For instance, when facilitating their SAM seminars with school administrators present, the facilitators would tap the administrators' knowledge and experience within the specific school setting and student population to involve them in a strategic way in the conversation. At the same time, they worked to define boundaries for their respective leadership roles in the sessions.

*Gearing facilitation to team readiness.* LDFs make judgment calls about a school's readiness to take on inquiry in a serious way. For example, schools at risk of being phased out face a special set of challenges and constraints that focus attention on immediate needs that could potentially prevent the closing. As one LDF described: "This is a school that, whereby the short-term goal is to move them higher and prevent the closing, the real work that I do there is to put into place a structure for the long-term goal: Where are we going to be four years from now? You can't continue this in the band-aid approach, so to speak."

Transfer schools also present special challenges of size and student turnover that affect their readiness for inquiry-based improvement. According to one LDF:

They don't have enough teachers in some cases to really have teams…And then—and, to me, this is the biggest challenge—and this goes to doing any kind of inquiry in a transfer school: they're cycling the kids through so quickly, they're doing it on a trimester basis, so they don't have the kids for long enough to kind of dig in and figure out 'What are the skills they need to develop?' and work through an instructional strategy—that whole cycle piece—within a trimester. It's really hard. They don't have the same kids for the entire year as they do in most high schools…It's a more transient population. So the kids who are there in September are not necessarily even in the school anymore. So that's a real challenge for inquiry model in the transfer schools.

Notably, given conditions that work against inquiry implementation, one transfer school in our case study sample has made great strides on inquiry. In this case, the LDF collaborated with the school in designing work in ways that met the conditions and developmental needs of their small inquiry team. The teacher members of the team joined the SAM program to advance their inquiry practice and leadership development.

SAM facilitators grapple too with the challenge of adapting their practice to the developmental needs of teams in their seminar. One strategy they have used is to structure "group time" at the beginning of each of their seminars in order to check in with each team to provide differentiated instruction and support. In the words of a SAM facilitator: "group time…gave me the opportunity to check in with the teams – one was on track…[and] the other needed more coaching to get to understand what I was asking of them."

Throughout the process of addressing places where teams struggle, facilitators remained fiercely introspective. For example, one facilitator "believed that teams are struggling because *she* needs to do more coaching. She indicates that she did team coaching last year, but not enough individual coaching. This is one of her goals for this year." In addition to setting goals individually for themselves, some facilitators shared these with their teacher teams and also debriefed the team process as a whole, with generally positive results: "and there was a sense of like 'Ahhhh.' And *everyone* independently told me like, 'Wow'…the reflection of [the] environment and [the] dilution [of tension] was such a relief for everybody, [it] was *so* palpable."

Cultural Challenges and Supports

*Nurturing team trust and collaboration.* Inquiry teams need to open up their practice with one another and, therefore, a condition of mutual respect and trust is essential. Teachers need to feel safe and secure in order to take the risks of moving outside their comfort zone. For many, sharing their own work and struggles with school colleagues is threatening.

Facilitators enter widely varying team and school cultures – ranging from those in which teachers have strong collaborative relations to those in which they distrust one another and disagree on instructional philosophy. Typically, they encounter strong norms of privacy:

Yesterday at [the school] it turned out that in the content area teams, only the [teacher] facilitator had been bringing student work in. And s/he really didn't see that there was a problem with that—because s/he was getting feedback [from colleagues on the team]. I

said, 'But *they're* not *learning*. They're not exposing themselves…You've got to have a risk-free atmosphere where someone can come in and say, 'I'm struggling with this. Please look at this. Help me with this.' And so building that level of trust is very hard.

As schools develop multiple teacher inquiry teams across grade levels and content areas, LDFs face the challenge of nurturing teacher facilitator skills in creating conditions of trust in their collegial teams. They also play a key role in establishing clear guidelines for team roles that, in turn, help to build ownership of the work. As one LDF explained:

One of my lessons learned this year is that it makes a big difference how you launch those teams. Who are they accountable to? Who on the team is accountable? What kind of preparation do they have? I feel like we did a lot of things really well. For example, in the beginning of the year we did develop very tight protocols and agendas and had everybody doing the same thing. And we had administration representation on the teams. Not necessarily to be the leader; but to be the link, the liaison, and to hold the team accountable, and to bring back the learning. Right? As we progressed through the year the teams became more independent. In some cases we were able to not even have a consistent administrative presence on the teams. They began to take ownership. And they also began to differentiate according to the challenges that they had. So we didn't have to script agendas for them anymore. Some of them had taken off and done *wonderful* work. And they really have a cohesive sort of team spirit. They create their own agendas. They do their own data analysis.

Because SAM explicitly aims to develop participating teams' skills in leading colleagues in inquiry-based reform, the program has designed various tools and strategies to develop positive team dynamics. For example, exercises and readings in the first curriculum model address issues of negative dynamics with colleagues and ways of developing a complementary division of labor for team work. Also, the facilitators regularly interact with teams about their internal dynamics. During "team work" time in seminars, facilitators prompt participants to reflect on individuals' roles and responsibilities on their teams, how the dynamic has evolved over time, and ways in which their collaboration could be strengthened. In addressing teams' different needs and developmental stages, one facilitator divided participant teams/schools into three levels: high touch ones that need a great deal of support, mid touch ones that need some support, and low touch ones that function independently and require periodic check-ins based on need. Further, SAM facilitators lead sessions with multiple teams that address distinct team dynamics and leadership roles. They have found that "critical friends groups" – which they role play during their weekly facilitator-only meetings, rotating roles of presenter and facilitator – were a valuable resource for addressing team dynamics and developing interventions.

*Challenging teacher beliefs that inhibit student success.* Facilitators also have a crucial role to play in moving teams beyond their comfort zone – challenging beliefs and habits of mind that typically "excuse" student failure. As described earlier, external attributions of failure and a view of teaching as curriculum delivery, are chief among them.

When well implemented, the cycle of inquiry brings about key shifts in teacher perspective by demonstrating that struggling students can succeed when instruction targets their

learning needs. Experience over several years in SAM points to "staying small" as a key principle for ensuring that inquiry succeeds and develops teachers' sense of collective efficacy (Talbert & Scharff, 2008; see also Gallimore et al., 2009). However, facilitators often have trouble keeping teams' focus small because principals and teachers often push for big, programmatic interventions designed to address a range of student skill gaps. SAM facilitators have the important resource of being able to hold teams accountable for assignments that demonstrate their focus on a small, manageable learning target and designing an effective instructional response.

In addition, facilitators prompt team members to break their habits of mind. As the majority of teachers reported on our survey, a facilitator "pushes us to think in new ways" and "raises good questions that move forward our thinking about the work." When present during inquiry team meetings, a facilitator can push conversations away from a student's family circumstances and toward his/her academic skills and gaps, for example, and can raise questions about where in the curriculum a struggling student can address a particular skill gap revealed by assessments.

SAM includes three "anchors" of facilitation to shift a team's habits of mind and routines that inhibit their success with struggling students. The guidelines can help facilitators meet the challenge of re-culturing a team. First: "provoke and support learning" by both creating enough tension to prompt team members' learning and by not acquiescing to their desire to remain in or return to their "comfort zone." Second: "keep the focus on results" by making the team's targets clear and public, making sure that the targets are owned by the team, and helping them manage distractions. Third: "ensure timely, honest, and actionable feedback so that teams can learn through their inquiry work and act on evidence showing areas for improvement. SAM facilitators hold themselves accountable for following these core principles for practice, and they guide participants to use them in leading inquiry teams in their schools.

*Helping teams spreading a culture of inquiry in their school.* The challenge school inquiry leaders and facilitators face in attempting to bring a whole faculty on board for inquiry to improve student achievement is exacerbated by the DOE's mandate for collaborative inquiry. As one LDF described: "I think all of that also sits in [the] context of a mandate, of a thing that's now 'You have to do this.' And 'inquiry' has become not the best word in some schools."

Still, interest in inquiry grew in schools where an inquiry team shared evidence of improved student outcomes with their colleagues. A clear focus on student learning and success with struggling students is compelling to most teachers. One LDF commented that teachers have gradually shifted in their stance on inquiry:

> There are folks that absolutely do not and think that 'I'm the teacher here, and I've been teaching, and you can't really tell me—because I'm a perfectly good teacher.' So there's been a little bit of a culture shift in terms of some of the [that] grade teachers. But I think they've come around. I mean they may not totally be on the same page, I would say, but they really do care very much about the kids and they understand that this method—the inquiry process—has really moved the kids. I mean that's just undeniable.

Nonetheless, the original school Inquiry Teams and SAM teams uniformly encountered resistance on the part of some of their school colleagues when they attempted to follow target students into classrooms and script dialogue (to create Low Inference Transcripts, or LITs). These "early adopters" of inquiry did not find it simple and direct to bring their school colleagues along.

Given SAM's goal of developing inquiry leadership, facilitators created several strategies to help their teams manage colleague resistance. For example, in addition to selected readings, SAM facilitators designed lessons to help participants understand that there is not just one "culture" in a school—that the culture differs depending upon the viewpoint of different constituencies within the school. After brainstorming what we look for to find a schools culture, facilitators prompted the teachers to identify two cultures, and then three cultures within their school. Facilitators also shared their own "lenses" on the schools' culture as "outsiders" looking in: "Truthfully, sharing my own lenses with them was pretty powerful, I thought, especially because…it gave them a sense of my own 'otherness.'" Ultimately, the strategy of framing conversations with colleagues around expectations for students proved to be a powerful strategy to push teachers' thinking around the area of culture and shifting colleagues' perceptions of students.

Perhaps the greatest challenge SAM facilitators have faced is developing team members' skills in facilitating inquiry with their colleagues – in prompting other teachers to rethink their assumptions about student learning and instruction. The goal is that SAM graduates will be able not only to manage resistance and motivate colleagues toward inquiry, but also to lead individual teachers and teams to investigate their practice in terms of student learning. This is a big charge for individuals who participate in their school's teaching culture.

SAM developed a coaching protocol to support participants' work with colleagues. The protocol prompts them to work with a teacher to brainstorm elements of a lesson and learning objectives, then to script the lesson as evidence of what happened, and finally to debrief with the teacher in ways that would stimulate new thinking and plans. In order to assess participants' coaching practice, SAM facilitators have been scripting and analyzing the coaching sessions. It became apparent that participants have great difficulty adopting a coaching stance towards their colleagues. Facilitators' analysis of the relationship between a teacher's lesson objectives and classroom scripts identified inconsistencies. Yet, the coaching scripts revealed that typically SAM participants did not address the inconsistencies. Either they did not detect them or they preferred to maintain a congenial relationship rather than create disequilibrium.

SAM facilitators have struggled with the challenge of developing teacher participants' skills in leading inquiry and culture change in their schools. They use techniques like fishbowls to create a forum where "participants expressed their reservations" and the group could discuss them. They have emphasized the importance of the "planning conversation" in setting the stage for coaching and had participants practice coaching with one another. Through all this, they observed that the teachers struggle with "pushing [colleagues] for clearer purpose/objectives." Facilitators continue to work on developing more effective approaches to scaffolding and supporting SAM participants' work to stimulate and facilitate their colleagues' reflection on instruction.

* * * * *

LDFs and SAM facilitators alike point to dialogue and collaboration with colleagues – a facilitator Professional Learning Community (PLC) – as the greatest resource for their learning and success in meeting the challenges of their work. For example, sharing their experiences of using data tools with schools helped LDFs refine their work with school teams. Working together weekly helps SAM facilitators align their instruction and calibrate their feedback to teams/schools. "Courageous conversations" surface individual facilitator struggles in their work with particular schools and help the group to develop strategic moves to support school change.

Facilitator communities of practice play a crucial role in continually deepening the understandings and skills these individuals bring to their work with schools. Those with more facilitator experience can pass along lessons learned and lead conversations about challenges encountered. For example, successive cohorts of SAM facilitators now constitute a PLC in which knowledge and wisdom of practice is shared and built across "generations." Facilitators new to SAM or inquiry feel "grounded" in understandings of effective practice that have developed over time and oriented to challenges for invention that have surfaced through the work. New Visions LDFs have convened in various configurations over the years, meeting as a group or in a POD biweekly for a few hours. New Vision's new regional network structure may afford more focused and intensive communication and collaboration among LDFs within each network.

Developing and sustaining facilitator PLCs seems essential to inquiry-based school reform. This strategy for building mid-level organizational capacity is costly but seems indispensable for long-term change.


### Lessons and Implications for New Visions

Evaluation research on inquiry in New Visions PSO schools over the past year extends our prior analysis of schools' progress on inquiry-based reform, conditions that influence progress, and implementation challenges.

Trends on inquiry-based reform in New Visions PSO schools are both encouraging and challenging for organizational leadership. On one hand, a contingent of schools is making steady progress on collaborative inquiry to improve student success. On the other hand, a large number of schools appear to be floundering. Hopefully our evaluation findings will help to focus strategic interventions to support the progress of struggling schools, as well as to frame issues for research.

1) *Differences in schools' capacity for inquiry-based improvement have widened over three years. Principal support is a strong predictor.*

Three-year trends on survey indicators of school inquiry culture show divergent trajectories of change. Roughly a fifth of New Visions schools have made significant gains, and another fifth have declined significantly, on measures of teacher use of assessments to inform instruction and leadership for data-based improvement. The majority appear to be just holding

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steady. These results corroborate last year's findings of wide variation in school progress over two years and indicate that differences are widening.

Consistent with data reported last year, principal support is a significant predictor of school change on inquiry culture measures. Three-year trends show a widening gap here too, with larger proportions of schools showing significant decline than gain in teacher ratings of their principal's support of inquiry. Further, the principals of schools with least-developed inquiry practices appear to have disproportionately decreased their support of teachers' collaborative inquiry. In effect, school leadership for implementing inquiry in teacher teams has become more divergent over time.

*Implications for New Visions.* These patterns suggest that NV will need to differentiate its support and resources for inquiry across schools in the PSO. Most likely, principals who are committed to inquiry and supporting teacher teams' work are already reaching out for resources they deem useful. Those who are not engaged might benefit from a range of proactive supports. The value of any particular support depends, of course, on the reason for decline in school progress and/or principal support. At least two reasons seem plausible and point to different kinds of strategic responses on the part of NV and network leaders.

a) Resistance or lack of commitment to collaborative inquiry as an approach to improving student achievement. School administrators and teacher leaders may see no compelling reason to promote data-based inquiry and need answers to the question: Why inquiry?

In such cases, NV is challenged to develop school leaders' understanding of, and appetite for, inquiry. Approaches might include an inspirational seminar, such as those run across the country by the DuFours, scientific evidence of improved student outcomes through teacher team inquiry, exemplars of good inquiry practice illustrated through case write-ups or videos, and testimonials by colleagues. Ideally, such communications would take place in a forum of colleagues to allow for dialogue and probing. But web-based resources can be useful as well, such as those currently available to teachers on the DOE's collaborative inquiry websites.

New Visions' plan to use SAM for leadership development in new charter schools will help to ensure that collaborative inquiry is part of these schools' DNA. This strategy will not only engender inquiry progress in the charters, but expand school-based leadership for inquiry within the PSO and the potential for spread within the networks.

b) Limited understanding of inquiry or lack of implementation guidelines. School administrators may be at a loss as to how they can support inquiry teams and need answers to the question: How to promote inquiry?

In such cases, NV might develop guidelines and illustrations for various kinds of supports inquiry teams need from a principal. These would center on the principal's roles in establishing conditions for team work (e.g., scheduling common planning time, ensuring teams' access to assessments and data on individual student performance), in promoting and prioritizing the work (e.g., avoiding competing demands on teachers' time), and in developing broad leadership of

inquiry (e.g., ensuring professional development for team facilitators, encouraging team presentations to colleagues).

Further, collaborative inquiry for instructional improvement frames a new paradigm for principal leadership – a shift from typical notions of instructional leadership to one of "learning leadership."[12] Principal leadership shifts from evaluating individual teachers' practice against content instructional standards to holding teacher teams accountable for diagnosing and successfully addressing student learning needs and supporting them to do so. NV leaders could scaffold this shift in perspective and practice through readings and network seminars, as well as supporting their use of student assessment data to evaluate teacher teams' progress.

Research designed to capture principal practices that support teacher teams' progress on inquiry-based reform could contribute to this capacity-building agenda. Questions would include: a) What kinds of principal supports are most critical at each stage of development of team inquiry practice – in getting teacher teams started, in pushing their progress, in sustaining effective team practice?, and b) How does a principal learn to make strategic decisions to advance progress on collaborative inquiry in a team and across school teams, with what supports?

**2)  *Inquiry team practice engenders shifts in teacher beliefs and school culture that sustain continuous improvement. However, teams encounter significant technical, organizational, and cultural challenges for change.***

Qualitative research in NV schools points to particular shifts in teacher perspectives on instruction and in school culture that come about when they practice inquiry. Central among them is a teacher shift toward focus on student learning and culture shift toward shared accountability for student success and collective efficacy.

However progress on inquiry practice to support the shifts in teaching practice and school culture is problematic. Teams, and the facilitators who work with them, encounter predictable hurdles and bumps along the way, and many stagnate or fall back. Technical challenges include learning to analyze data to diagnose student skill gaps, to design instruction to address a specific learning target, and to develop or use assessments to  evaluate and refine instruction. Organizational challenges entail establishing conditions for team inquiry, such as protected time and empowerment to lead inquiry and make instructional decisions. Cultural challenges center on shifting from beliefs and habits of mind that inhibit inquiry and success with struggling students.

*Implications for New Visions.*  Documented challenges for change to a school inquiry culture point to areas where NV might enhance or develop school support. To date, NV has developed cutting edge data platforms and summaries to support school teams' technical capacity for inquiry. K-Base supports teacher teams' sharing of effective inquiry practice, and could be enhanced by a clearing house of high-leverage Learning Targets and assessments to

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[12] DuFour, R., & Marzano, R.J. (2009). High-leverage strategies for principal leadership. *Educational Leadership, 66(5),* 62-68.

evaluate instructional responses. Network PLCs of data specialists and team facilitators might advance the development and use of these resources.

NV could help teams address organizational challenges of inquiry by developing guidelines and resources for school administrators, such as those suggested above. Further, in order to support the success of teacher team leaders or facilitators of inquiry, NV networks could design ongoing seminars and PLCs to help develop their capacity to lead inquiry with their inquiry team colleagues.

Designing ways to address cultural challenges for change are perhaps the most difficult and most important. Resources for creating buy-in to inquiry, such as those suggested for principals, can also make a difference for teachers within schools. Visible, articulated challenges to routine ways of thinking about student failure can mobilize change. For example, DuFours' sessions with school teams prompt teachers to re-think their assumptions about student learning and good teaching, as well as their relations with colleagues. NV networks could take this on as a teaching and learning agenda.

### 3) *Facilitators face technical, organizational, and cultural challenges in leveraging and supporting school teams' progress on inquiry*

As front line promoters and supporters of school change toward inquiry, NV and SAM facilitators help teams address obstacles to their progress on inquiry. Challenges for their practice that surfaced through our facilitator interviews and observations and school case studies map onto those that teacher teams face, but they center on tasks of moving the team forward.

To advance knowledge to support their work, we took up a new line of analysis on the facilitator role in school change. As a start, we have identified challenges that LDFs and SAM facilitators encounter in their work to support school progress on inquiry, as well as resources that support their success. Findings contribute to a growing knowledge base on inquiry-based reform. They also frame issues for New Visions on how to support school progress on inquiry-based reform and for research to inform this agenda.

Facilitators are challenged to:
- develop priorities and use or design tools to guide team inquiry development;
- navigate diverse school contexts and manage scale challenges of working with multiple teams from each school;
- leverage change in team norms toward shared responsibility for student learning, collective efficacy, and inquiry leadership with colleagues.

Evidence suggests that the most important resource for facilitator learning is collaboration with their colleagues to develop deeper understandings of the demands inquiry makes on teachers and schools and strategies for supporting their progress.

*Implications for New Visions.* Potentials for advancing facilitator capacity to move schools on the inquiry-based reform agenda pertain to two key issues: How to organize the

learning and support needs of facilitators?; and How to advance the knowledge base for facilitator practice?

Regarding the first issue, the learning curve for individuals who become SAM facilitators and LDFs is quite steep, despite the impressive track records they bring as former principals, system administrators, or professional developers. Many told us that they were at first dubious that inquiry is the best reform strategy. To become convinced they had to confront assumptions about the efficacy of alternative approaches to improving instruction. Many were pros in leading professional development in content instruction and brought this frame to their new leadership role. Just as teacher inquiry teams need to move beyond their comfort zones to develop new perspectives and practices, so do facilitators of change need to reframe their roles and develop new skills to promote inquiry-based reform. While honoring facilitators' prior achievements, NV needs to focus their attention on outcomes and challenges of an inquiry-based reform agenda.

Organizing learning resources to support the development of facilitator capacity would include creating conditions for a productive PLC in each network. As LDFs and SAM facilitators enact new and complex roles, they need to craft their own agenda for ongoing  dialogue and sharing of resources to support their individual and collective progress.

Developing a knowledge base for facilitator practice would build on individuals' experiences of successful strategies and practices in diverse school settings. Documentation and action research to advance this practice-based knowledge would consider developmental stages of team inquiry practice and facilitator moves that support change at each stage. For example: what kinds of tools and facilitator practice prompt a teacher team to drill down in their focus on student skill gaps? What protocol and coaching enable a teacher leader to move colleagues to deeper and sustainable inquiry practice? Most generally: in what ways can a facilitator help a team overcome the typical roadblocks to change toward collaborative inquiry?  SAM facilitators are carrying out action research to address such questions, in collaboration with our evaluation team, and results promise useful contributions to facilitator practice within the program and beyond.

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# Appendix A

# CRC

# New Visions for Public Schools

## Teacher Survey

## Spring 2010

## Response Summary
(164 teacher respondents in 58 schools*)

* This summary excludes data from 268 teachers in two large high schools that requested their own survey. Their inclusion would bias results for the population of New Visions schools that averaged 2.8 teacher respondents.

## ABOUT THE SURVEY


This survey is being conducted by the Center for Research on the Context of Teaching (CRC) at Stanford University as part of an evaluation of inquiry-based improvement in New Visions schools. Several teachers from each school are being surveyed in May 2010. Questions aim to capture teachers' experiences working with colleagues to improve student achievement and, if participating in the SAM certification program, how they evaluate facets of the program. A fourth, follow-up survey will be conducted in Spring 2011.

Questions focus on:
- School Conditions
- Inquiry Work in the School (consider the team or teacher group you work with on inquiry)
- Professional Background and Instruction
- Experiences in the SAM program (if relevant)

Time needed to complete the structured questions is approximately 20 minutes.

**Responses are entirely confidential.** The survey is governed by stringent Stanford University regulations designed to safeguard study participants by ensuring privacy of individuals' responses. ID numbers are used for follow-up and record-keeping purposes by CRC's researchers and so that change can be analyzed over time. All survey results will be reported only in statistical summaries that ensure that individuals cannot be identified.

**Thank you for contributing your time and thoughtful responses to this survey!**


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FOR FURTHER INFORMATION

If you have any questions about this survey, please feel free to call us for further information: Pai-rou Chen, CRC Project Director, prchen@stanford.edu

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# SCHOOL CONDITIONS

1. *Please indicate how much you agree or disagree with each of the following statements about **working conditions** in your school.*

| | | Strongly Disagree | | | Strongly Agree |
|---|---|---|---|---|---|
| a. | There is a great deal of cooperative effort among the staff members | 3.1 | 9.9 | 45.7 | 41.4 |
| b. | The school administration's behavior toward the staff is supportive and encouraging | 8.0 | 16.0 | 40.7 | 35.2 |
| c. | Teachers take an active role in school wide decision making | 7.4 | 20.4 | 42.6 | 29.6 |
| d. | The faculty has an effective process for making group decisions and solving problems | 9.3 | 25.3 | 50.0 | 15.4 |
| e. | I am supported by school leaders in efforts to improve instruction for my students | 5.6 | 16.9 | 35.6 | 41.9 |
| f. | I receive ongoing feedback and evaluation useful for improving my instruction | 10.1 | 25.8 | 37.1 | 27.0 |
| g. | This school has a clear vision of reform that features the use of data on student performance to focus improvement efforts | 6.3 | 16.3 | 44.4 | 33.1 |

2. *How well does each of the following statements describe the **teaching culture of your school or,** if you work in a large high school, **in your SLC or subject department (your primary collegial unit)**?*

| | **In this school or SLC/department…** | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|---|
| a. | Teachers trust one another | 2.5 | 6.2 | 17.9 | 43.2 | 30.2 |
| b. | Teachers share a vision of good teaching practices | 1.9 | 8.6 | 14.2 | 44.4 | 30.9 |
| c. | Teachers feel responsible to help one another do their best | 2.5 | 11.1 | 19.1 | 36.4 | 30.9 |
| d. | Teachers use time together to discuss teaching and learning | 3.1 | 8.0 | 11.7 | 40.7 | 36.4 |
| e. | I receive meaningful feedback on my performance from colleagues | 3.1 | 14.9 | 25.5 | 36.0 | 20.5 |
| f. | I make a conscious effort to coordinate the content of my courses with that of other teachers | 1.2 | 8.1 | 19.9 | 40.4 | 30.4 |
| g. | When addressing particular instructional challenges, I feel comfortable asking for advice or help from other teachers | 1.2 | 1.9 | 10.5 | 38.3 | 48.1 |
| h. | I feel comfortable giving feedback to other teachers on ways they might improve their instruction | 1.9 | 4.3 | 18.0 | 39.1 | 36.6 |

3. *How well does each of these statements describe **how teachers work together** in your school or SLC/ subject department?*

| In this school or SLC/department | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| a. We share and discuss student work regularly | 4.9 | 8.6 | 14.8 | 46.3 | 25.3 |
| b. We meet regularly to review student performance on benchmark assessments | 6.2 | 13.0 | 21.7 | 39.8 | 19.3 |
| c. We use a variety of assessment strategies to measure student progress | 1.9 | 4.4 | 11.9 | 48.4 | 33.3 |
| d. We use assessment data to evaluate our curriculum and instructional practices | 3.7 | 8.6 | 14.8 | 43.2 | 29.6 |
| e. We discuss particular lessons that were not very successful | 6.2 | 17.9 | 21.6 | 32.7 | 21.6 |
| f. We work together to improve instruction | 3.7 | 7.4 | 17.9 | 36.4 | 34.6 |

4. *Now consider **leadership** in your school, SLC, or subject department. Please indicate the extent to which leader(s) do each of the following.*

| School or SLC/department leaders … | Never | Rarely | Occasion-ally | Often | Always |
|---|---|---|---|---|---|
| a. Actively seek and make use of diverse and controversial views | 6.2 | 17.4 | 37.9 | 26.7 | 11.8 |
| b. Negotiate successfully between opposing points of view | 4.3 | 17.4 | 33.5 | 29.2 | 15.5 |
| c. Are willing to admit and learn from mistakes | 10.5 | 11.1 | 24.7 | 28.4 | 25.3 |
| d. Use data to identify patterns to inform decision making | 1.9 | 6.8 | 23.0 | 37.3 | 31.1 |
| e. Use objective evidence to identify, frame and solve problems | 4.3 | 10.6 | 20.5 | 41.0 | 23.6 |
| f. Use data to evaluate the effectiveness of decisions | 5.6 | 11.1 | 23.5 | 34.6 | 25.3 |
| g. Take responsibility for others' learning | 8.1 | 10.6 | 26.1 | 31.1 | 24.2 |
| h. Communicate clear expectations that everyone is responsible for the learning of their colleagues | 9.4 | 12.6 | 24.5 | 27.7 | 25.8 |
| i. Create systems of on-going feedback and evaluation to improve practice | 4.4 | 17.0 | 28.3 | 25.2 | 25.2 |
| j. Demonstrate the capacity to delegate and trust others with real leadership tasks | 9.3 | 11.1 | 19.8 | 31.5 | 28.4 |

5. *Please mark the extent to which you disagree or agree with each of the following.*

| In this school…. | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| a. Teachers expect most students in this school to go to college | .6 | 14.8 | 46.9 | 37.7 |
| b. Teachers at this school help students plan for college outside of class time | 1.3 | 16.9 | 50.0 | 31.9 |
| c. The curriculum at this school is focused on helping students get ready for college | 5.7 | 15.1 | 50.9 | 28.3 |
| d. Most of our students have the capacity to do college level work | 7.5 | 40.6 | 40.0 | 11.9 |
| e. Most of the students in this school are planning to go to college | 3.1 | 16.9 | 59.4 | 20.6 |
| f. Teachers in this school feel that it is a part of their job to prepare students to succeed in college | 1.9 | 6.3 | 48.4 | 43.4 |

6. *Please mark the extent to which you agree or disagree with these statements about your school's relationship with **parents and the community**.*

| | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| a. Staff are aware of issues and concerns of the community in which the school is located | 1.9 | 7.4 | 24.1 | 37.0 | 29.6 |
| b. The school encourages and supports parents to help their students succeed academically | .0 | 7.4 | 13.0 | 43.8 | 35.8 |
| c. Parents play an active role in making decisions about the school's program | 15.5 | 29.2 | 23.0 | 19.3 | 13.0 |
| d. If a student or student's family needs help, the school collaborates with social service agencies to see that they get help | 2.5 | 3.1 | 19.8 | 34.6 | 40.1 |
| e. Parents are actively involved in examining data on our school's progress toward its standards | 19.9 | 27.3 | 31.1 | 15.5 | 6.2 |
| f. Staff in this school work hard to build trusting relationships with parents | .6 | 3.7 | 23.0 | 38.5 | 34.2 |

# INQUIRY WORK IN THE SCHOOL

(Consider the team or teacher group you work with on inquiry)

7. ***How many people on your Inquiry Team*** *work in each of the areas listed below (please write in numbers for each: 0 if none):*

| No. of people | Subject Area or Position |
|:---:|:---|
| 2.40 | ELA |
| 1.88 | Math |
| 1.51 | Science |
| 1.78 | Social Studies / History |
| 1.08 | Special Education |
| .84 | Counselor |
| .67 | Assistant Principal(s) |
| 1.27 | Other |
| 7.03 | **Total number on IT (excluding principal)** |

8. *This question concerns how Inquiry Team members* **work together**. *Please indicate how consistently the team operates in each of the following ways.*

| | **Our Inquiry Team members …** | Never | Rarely | Occasion-ally | Often | Always |
|:---|:---|:---:|:---:|:---:|:---:|:---:|
| a. | Are open and honest about their weaknesses, fears, and mistakes | 1.3 | 4.0 | 14.8 | 47.0 | 32.9 |
| b. | Solve the most important and difficult issues during team meetings | 2.0 | 8.7 | 25.3 | 42.0 | 22.0 |
| c. | Engage in passionate dialogue around issues and decisions that are key to the school's success | 2.0 | 4.7 | 18.0 | 38.0 | 37.3 |
| d. | Challenge and question one another in order to make the best decisions | 2.7 | 4.7 | 18.7 | 41.3 | 32.7 |
| e. | Take time to reflect on interpersonal issues and have strategies for effectively solving them | 1.3 | 6.0 | 32.2 | 36.2 | 24.2 |
| f. | Are able to come to agreement without compromising individual members' perspectives | 1.3 | 4.0 | 19.5 | 48.3 | 26.8 |
| g. | End team meetings with clear and specific understandings of actions to be taken, timelines, and distribution of responsibility | 1.3 | 6.0 | 20.1 | 38.3 | 34.2 |
| h. | Work as a group to equitably distribute the workload | 2.7 | 9.3 | 20.0 | 39.3 | 28.7 |

**Continued from p. 4**

| Our Inquiry Team members … | Never | Rarely | Occasion-ally | Often | Always |
|---|---|---|---|---|---|
| i. Know what each of us is working on and how this contributes to the group | 1.3 | 8.0 | 20.0 | 42.7 | 28.0 |
| j. Leave meetings confident that we all are committed to the decisions agreed upon, even if there was initial disagreement | 2.0 | 4.0 | 21.3 | 44.7 | 28.0 |
| k. Share ownership of our learning and products | 1.3 | 6.0 | 16.0 | 44.7 | 32.0 |
| l. Have established group norms and hold one another accountable for adhering to them | 3.4 | 8.1 | 22.1 | 36.9 | 29.5 |
| m. Are deeply concerned about the prospect of letting one another down | 3.4 | 10.1 | 22.1 | 36.9 | 27.5 |
| n. Establish clear and unambiguous measurements for assessing our success | 2.7 | 11.4 | 24.2 | 40.3 | 21.5 |
| o. Stay focused on results in the face of distractions and competing priorities | 3.4 | 7.4 | 22.8 | 43.0 | 23.5 |
| p. Willingly make sacrifices for the good of the team and the achievement of our goals | 1.4 | 7.4 | 21.6 | 41.9 | 27.7 |

9. *Please indicate whether or not your New Visions LDF or SAM facilitator has worked with your Inquiry Team this year on each of the following activities. If yes, please rate how valuable it has been for your leadership development.*

| Have you worked with a New Visions or SAM facilitator on……? | Yes, we have worked on this | If yes, how valuable has it been? | | | | |
|---|---|---|---|---|---|---|
| | | Not at all Valuable | | | | Extremely Valuable |
| a. Using data to identify target students | 77.0 | 1.9 | 8.5 | 20.8 | 39.6 | 29.2 |
| b. Using data to identify skill gaps for target students | 72.8 | 1.0 | 5.0 | 20.0 | 39.0 | 35.0 |
| c. Conducting low-inference observations of classroom(s) | 66.4 | 5.5 | 15.4 | 23.1 | 26.4 | 29.7 |
| d. Using data to evaluate our curriculum and instruction | 69.2 | 2.2 | 12.0 | 17.4 | 38.0 | 30.4 |
| e. Deciding on intervention(s) for target students | 75.6 | .0 | 11.1 | 19.2 | 38.4 | 31.3 |
| f. Using data to evaluate interventions | 64.5 | 4.6 | 6.9 | 20.7 | 39.1 | 28.7 |
| g. Engaging faculty in problem-solving instructional issues | 61.0 | 3.8 | 13.8 | 18.8 | 31.3 | 32.5 |
| h. Leading a school-wide focus on learning | 59.7 | 6.4 | 9.0 | 17.9 | 30.8 | 35.9 |
| i. Other | 37.3 | 3.4 | 6.9 | 27.6 | 24.1 | 37.9 |

*10. How many **target students** has your team focused on this year?* <u>mean = 17.63 (std. dev. = 25)</u>

*What grade levels are they in?* (Check all that apply.)

| K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| 2.7 | 2.7 | 2.7 | 5.3 | 16.7 | 12.5 | 32.0 | 42.9 | 34.8 | 70.5 | 84.2 | 71.6 | 60.6 |

In what subject area(s) have you identified skills, subskills, and learning targets for interventions?

(please write in)

_____

*11. To what extent does each of the following statements capture your **Inquiry Team's experience with facilitator and principal support over the past year?*** [Note: "facilitator" refers to the New Visions LDF working with your team or, if you participate in the SAM program, to your instructor.]

| | **In our Team's experience, the …** | Strongly Disagree | | | | Strongly Agree |
|-----|-------------------------------------|------|------|------|------|------|
| a. | Facilitator conveys clear objectives and expectations for our work | 7.3 | 11.7 | 23.4 | 38.7 | 19.0 |
| b. | Principal establishes conditions for trust and open communication | 8.0 | 8.0 | 18.8 | 30.4 | 34.8 |
| c. | Facilitator creates structures for feedback and self-assessment on our behavior | 6.6 | 10.2 | 19.0 | 43.1 | 21.2 |
| d. | Facilitator elicits, respects, and incorporates multiple voices and perspectives | 6.6 | 7.3 | 18.2 | 39.4 | 28.5 |
| e. | Facilitator pushes us to think in new ways | 6.5 | 7.2 | 18.1 | 36.2 | 31.9 |
| f. | Principal actively supports our risk-taking | 8.0 | 7.3 | 23.4 | 30.7 | 30.7 |
| g. | Facilitator helps us shift direction and make corrections when we reach an impasse | 6.5 | 10.9 | 21.0 | 37.0 | 24.6 |
| h. | Principal uses authority to push our learning in the service of target students and targeted learning goals | 5.8 | 13.9 | 25.5 | 32.8 | 21.9 |
| i. | Facilitator raises good questions that move forward our thinking about the work | 6.5 | 8.0 | 18.1 | 39.9 | 27.5 |
| j. | Facilitator pushes our learning even when it causes discomfort or anxiety | 7.2 | 6.5 | 26.1 | 32.6 | 27.5 |
| k. | Facilitator knows when not to push and how to contain anxiety | 10.1 | 8.7 | 29.7 | 31.9 | 19.6 |
| l. | Principal collaborates with our facilitator in ways that move the work forward | 11.7 | 13.9 | 19.7 | 32.1 | 22.6 |

**Continued from p. 6**

| In our Team's experience, the … | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| m. Data specialist brings useful tools and summaries to our work | 9.6 | 13.2 | 24.3 | 25.0 | 27.9 |
| n. Facilitator continually reinforces the core ideas of inquiry to widen the sphere of student success in the school | 7.4 | 8.8 | 23.5 | 36.0 | 24.3 |
| o. Facilitator holds us to the performance standards for inquiry teams, specifically, moving the students | 8.1 | 8.1 | 20.0 | 37.8 | 25.9 |

12. *Now consider **how the Inquiry Team works with others in your school**. Please indicate how well each of these statements describes your work.*

| On the whole, our Inquiry Team … | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|
| a. Aligns every action with improvement of student outcomes | 1.4 | 7.0 | 21.8 | 45.1 | 24.6 |
| b. Uses data to identify patterns to inform decision making | 1.4 | 4.9 | 16.1 | 47.6 | 30.1 |
| c. Works actively to support improvement of instruction | 1.4 | 7.0 | 14.0 | 47.6 | 30.1 |
| d. Uses objective evidence to identify, frame and solve problems | 2.1 | 3.5 | 21.7 | 45.5 | 27.3 |
| e. Takes responsibility for school colleagues' learning | 2.8 | 9.8 | 25.2 | 41.3 | 21.0 |
| f. Cultivates a shared vision and common purpose among school colleagues | 1.4 | 11.2 | 16.8 | 44.8 | 25.9 |
| g. uses low inference transcripts to collect data on student experiences with instruction | 6.3 | 13.3 | 23.8 | 37.1 | 19.6 |

13. *Now consider how your IT work has made a difference for teaching and learning in your school over the past year. For each of the following outcomes, please indicate how beneficial your inquiry work has been.*

| | **Possible outcomes of IT work** | No benefits | Minor benefits | Considerable benefits | Major benefits |
|---|---|---|---|---|---|
| a. | Our target students' performance on particular learning targets | 5.8 | 31.9 | 45.7 | 16.7 |
| b. | Our target students' performance in the subject area of our intervention | 6.5 | 31.9 | 45.7 | 15.9 |
| c. | Our target students' academic success beyond this subject area | 8.2 | 45.5 | 35.1 | 11.2 |
| d. | Our target students' motivation to graduate | 11.2 | 33.6 | 41.0 | 14.2 |
| e. | Our target students' motivation to attend college | 15.0 | 34.6 | 37.6 | 12.8 |
| f. | My assumptions about what students in my classes know and are able to do | 3.6 | 19.6 | 52.9 | 23.9 |
| g. | My focus on students and student learning in the classroom | 4.3 | 13.8 | 50.0 | 31.9 |
| h. | My use of assessments to identify student skills and learning needs | 3.6 | 11.6 | 53.6 | 31.2 |
| i. | My use of assessment data to focus and redirect instruction | 4.3 | 13.0 | 50.7 | 31.9 |
| j. | My school colleagues' use of assessment data to focus and redirect their instruction | 5.8 | 27.7 | 44.5 | 21.9 |
| k. | Effectiveness of the school's systems to support success of all students | 9.5 | 28.5 | 43.8 | 18.2 |
| l. | Academic performance of students in the bottom third performance level in the school | 6.7 | 37.0 | 40.7 | 15.6 |

## PROFESSIONAL BACKGROUND AND INSTRUCTION

*14. Please indicate the position(s) you currently hold in the school.* (Check all that apply.)

| | |
|---|---|
| Teacher | 83.5 |
| Assistant Principal | 4.3 |
| SLC Director | 5.5 |
| SLC Co-director | 2.4 |
| Department Chair | 6.1 |
| Grade / Team Leader | 13.4 |
| Data Specialist | 8.5 |
| Other Leadership Role | 19.5 |

## If you are *NOT* a classroom teacher, please skip to Question #22 (p.13)

*15. Please indicate your primary subject area (in which you teach the most classes this year)?*
    (Check one only)

| | |
|---|---|
| Multiple Subjects (Self-contained classroom) | 2.2 |
| <u>Subject Area:</u> | |
| English / Language Arts | 31.6 |
| Math | 19.9 |
| Sciences | 12.5 |
| Social Studies / History | 11.8 |
| Foreign Languages | 5.1 |
| Visual Arts | .7 |
| Performing Arts (e.g., drama, dance) | .0 |
| Special Education | 8.1 |
| Other | 8.1 |

*16. What grade(s) are you currently teaching?* (check all that apply)

| K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| .0 | .0 | .0 | .0 | 1.2 | 1.2 | 8.5 | 9.8 | 7.9 | 36.0 | 47.0 | 40.2 | 35.4 |

17. *Please indicate how many years you have done each of the following (include this school year)*

| How many years have you… | 0 | 1 Year or Less | 2 to 3 Years | 4 to 5 Years | 6 to 10 Years | 11 to 15 Years | More Than 15 Years |
|---|---|---|---|---|---|---|---|
| a. Had a regular teaching job in any school | .7 | 2.9 | 19.6 | 21.7 | 31.9 | 13.8 | 9.4 |
| b. Taught in this school | .7 | 17.4 | 41.3 | 23.2 | 15.9 | .0 | 1.4 |
| c. Taught in a different NYC school, including charter schools | 51.1 | 4.4 | 13.1 | 10.2 | 12.4 | 5.8 | 2.9 |
| d. Taught in a different public school system (other than NYC) | 74.3 | 7.4 | 11.0 | 1.5 | 3.7 | .7 | 1.5 |
| e. Taught in a Catholic or private school | 83.2 | 4.4 | 5.8 | 2.2 | 2.2 | 1.5 | .7 |
| f. Worked full-time in a profession other than teaching | 34.3 | 8.0 | 23.4 | 10.2 | 12.4 | 2.9 | 8.8 |

18. *Over the past year, how well prepared have you felt to do each of the following?*

| How well prepared have you felt to… | Not at all Prepared | Somewhat Prepared | Well Prepared | Very Well Prepared |
|---|---|---|---|---|
| a. Handle a range of classroom management or discipline situations | .0 | 16.7 | 37.7 | 45.7 |
| b. Use a variety of instructional methods | .0 | 10.1 | 49.3 | 40.6 |
| c. Teach your subject matter | .0 | 5.8 | 33.1 | 61.2 |
| d. Plan lessons effectively | 1.4 | 7.2 | 39.9 | 51.4 |
| e. Assess student learning | .0 | 12.9 | 48.2 | 38.8 |
| f. Select and adapt curriculum and instructional materials | .7 | 12.9 | 41.0 | 45.3 |
| g. Teach English Language Learners | 14.4 | 36.0 | 26.6 | 23.0 |
| h. Teach Special Education students | 10.8 | 38.1 | 31.7 | 19.4 |
| i. Use data to identify students' skill gaps | 1.4 | 24.5 | 38.8 | 35.3 |
| j. Design instruction to address students' skill gaps | 2.9 | 25.9 | 36.7 | 34.5 |
| k. Assess the effectiveness of my instruction to address gaps | 2.2 | 21.7 | 42.0 | 34.1 |

*19. Based on your experience, how much do you feel you can do to affect student behavior in each of the following ways.*

| How much do you feel you can you do to… | Nothing | Very Little | Some | Quite a Bit | A Great Deal |
|---|---|---|---|---|---|
| a. Control disruptive behavior in the classroom | .0 | 1.4 | 11.4 | 47.9 | 39.3 |
| b. Motivate students who show low interest in school work | .0 | 6.5 | 23.2 | 42.8 | 27.5 |
| c. Get students to believe they can do well in school work | .0 | .7 | 15.9 | 41.3 | 42.0 |
| d. Help students value learning | .0 | 2.1 | 22.9 | 40.7 | 34.3 |
| e. Get low-achieving students on track to graduate | .0 | 5.0 | 35.0 | 35.7 | 24.3 |

*20. This school year, how often did you:*

| | Never | Rarely | Sometimes | Frequently |
|---|---|---|---|---|
| a. Talk to students about what they need to graduate from high school | 1.5 | 5.1 | 18.2 | 75.2 |
| b. Talk to students about what they need to get into a 2-year college | 15.3 | 19.7 | 33.6 | 31.4 |
| c. Talk to students about what they need to get into a 4-year college | 7.4 | 7.4 | 32.4 | 52.9 |
| d. Talk to students about what skills they will need to do well in college | 2.9 | 2.9 | 26.3 | 67.9 |
| e. Talk to students about choosing colleges | 11.0 | 14.7 | 45.6 | 28.7 |
| f. Write a college recommendation letter for a student | 35.8 | 15.3 | 29.9 | 19.0 |
| g. Talk to students about scholarship opportunities | 21.9 | 26.3 | 30.7 | 21.2 |
| h. Help students with their college application essays or personal statements | 35.0 | 22.6 | 22.6 | 19.7 |
| i. Talk to students about what classes they should take to get into certain colleges | 27.7 | 13.9 | 32.1 | 26.3 |

*21. What, if any, school leadership or administrative position do you plan to pursue in the next 5 years? Please indicate your level of interest in each position listed below.*

|   |   | No Interest in Pursuing |   |   | Definitely Will Pursue |
|---|---|---|---|---|---|
| a. | Department Chair | 38.2 | 4.9 | 31.7 | 25.2 |
| b. | SLC Director | 71.8 | 12.7 | 12.7 | 2.7 |
| c. | Assistant Principal | 44.5 | 8.6 | 28.1 | 18.8 |
| d. | Principal | 64.5 | 10.7 | 20.7 | 4.1 |
| e. | Other | 62.1 | 4.2 | 20.0 | 13.7 |

## SAM CERTIFICATION PROGRAM

22  *Are you involved in the SAM administrator credentialing program?*

| Yes | 22.6 |
|---|---|
| No | 77.4 |

**→ if no, please stop here. Thank you!**

## *If yes, please complete the remaining questions:*

23. *How important was each of the following in your decision to enroll in the SAM certification program?*

| Opportunity for … | No Importance | Some Importance | Considerable Importance | Primary Importance |
|---|---|---|---|---|
| a. Administrative credential | 8.3 | 8.3 | 33.3 | 50.0 |
| b. Intensive support for data use | 19.4 | 36.1 | 30.6 | 13.9 |
| c. Study of leadership practices | 11.1 | 2.8 | 44.4 | 41.7 |
| d. Networking with leaders in other schools | 16.7 | 22.2 | 41.7 | 19.4 |
| e. Developing skills for leading inquiry in my school | 16.7 | 22.2 | 27.8 | 33.3 |
| f. Other | 26.1 | 21.7 | 39.1 | 13.0 |

24. *Key SAM program components are listed below. For each, please indicate how you rate its quality and its value for your leadership development.*  (Check one circle for each section.)

| | Quality of the Activity: | | | | | Value for my Leadership Development | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Extremely Poor | | | | Extremely Good | Not at all Valuable | | | | Extremely Valuable |
| a. Weekly Seminars | 6.1 | 9.1 | 12.1 | 45.5 | 27.3 | 8.8 | 11.8 | 20.6 | 35.3 | 23.5 |
| b. Readings | .0 | 14.7 | 5.9 | 41.2 | 38.2 | 5.9 | 11.8 | 17.6 | 29.4 | 35.3 |
| c. Activities used in class | 2.9 | 11.8 | 20.6 | 47.1 | 17.6 | 8.8 | 11.8 | 35.3 | 20.6 | 23.5 |
| d. Activities designed for school | 12.1 | .0 | 9.1 | 54.5 | 24.2 | 12.1 | 3.0 | 18.2 | 30.3 | 36.4 |
| e. On-site Coaching | 17.6 | 11.8 | 8.8 | 41.2 | 20.6 | 18.8 | 15.6 | 12.5 | 25.0 | 28.1 |
| f. Apprenticeships | .0 | 15.2 | 30.3 | 30.3 | 24.2 | 6.1 | 21.2 | 12.1 | 18.2 | 42.4 |
| g. Inter-visitations | 6.1 | 6.1 | 15.2 | 21.2 | 51.5 | 6.3 | 15.6 | 9.4 | 18.8 | 50.0 |
| h. Summer Intensive | 21.7 | 4.3 | 34.8 | 21.7 | 17.4 | 22.7 | 13.6 | 22.7 | 13.6 | 27.3 |

25. *SAM promotes **low-inference transcripts** as a way for leaders to examine teaching and learning in classrooms.*

    a.  *How well-prepared do you feel to do LITs?*

| Not at all Prepared | | | | Very Well Prepared |
|---|---|---|---|---|
| .0 | 17.1 | 14.3 | 31.4 | 37.1 |

    b.  *To what extent have low-inference transcripts been useful in guiding instructional improvement in your school?*

| Not at all Useful | | | | Extremely Useful |
|---|---|---|---|---|
| 22.9 | 28.6 | 28.6 | 11.4 | 8.6 |

26. *How much do you agree or disagree with each of the following statements regarding the SAM program's role in your school?*

| | | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|---|
| a. | SAM has helped our school make progress on inquiry-based improvement | 5.9 | 2.9 | 17.6 | 35.3 | 38.2 |
| b. | SAM participation has given me credibility as a school leader | 8.8 | 8.8 | 23.5 | 38.2 | 20.6 |
| c. | SAM has improved target students' academic performance | 5.9 | 8.8 | 11.8 | 47.1 | 26.5 |
| d. | SAM has increased the percentage of students who succeed in our school | 6.1 | 15.2 | 36.4 | 21.2 | 21.2 |

**THANK YOU FOR THE TIME AND THOUGHT YOU CONTRIBUTED TO THIS SURVEY!**

# Appendix B

# B1.  Survey Populations, Response Rates, and Bias Assessments

The CRC conducted surveys of teachers involved in school inquiry teams in all New Visions PSO schools in 2008, 2009, and 2010. A final follow-up survey will be conducted in 2011. Each web-based survey was launched in early May with weekly follow-ups through mid-June, including a hard-copy survey sent to non-respondents at the end of May.

Teachers surveyed were members of their school's Inquiry Team (IT) in 2008 and in 2009. Turnover or expansion of IT membership between the two years yielded a different, larger teacher survey population in 2009. During 2009-10 most schools created multiple teacher inquiry teams and some disbanded their school IT; so the 2010 survey included teachers who were current members of a school IT and/or who were included in the 2009 survey. On average, 4-6 teachers were surveyed in each school per year.

Response rates at the school and teacher level for each year were:

**2008**: 57 of 62 schools represented: 92 percent
164 of 301 teachers responded: 54 percent
Average response rate per school: 51 percent

**2009**: 72 of 75 schools represented: 96 percent
296 of 464 teachers responded: 64 percent
Average response rate per school: 64 percent

**2010**:  60 of 68 schools represented: 88 percent
164 of 363 teachers responded: 45 percent
Average response rate per school: 46 percent

For longitudinal analyses, we include only schools with two or more teacher respondents in each year included in the analysis. Although aggregate results do not differ when schools with one respondent are included, tests for significant change use standard deviations and require multiple respondents. School Ns for longitudinal analyses were: a) 29 schools for analyses of 2008, 2009, and 2010 trends; b) 42 schools for analyses using 2008 OR 2009 data as baseline for assessing change to 2010, and c) 30 schools for analyses of 2009 and 2010 trends.

We assessed two kinds of potential bias. First, we considered whether IT members' responses might present a biased view of the school culture. To assess this possibility, we compared school scores based on IT member responses with those based on all teachers' responses for 11 case study with whole faculty surveys in 2010 (response rates ranged from 71 percent to 100 percent; 90 percent average). Results showed no significant differences in ratings on the two Inquiry Culture scales for any school and no direction of differences across the schools.  Second, we considered potential bias due to IT member non-response. We compared overall mean scores on the school culture scales for schools with only one respondent in 2010 (N=13) with those for schools with two or more respondents (N=43), assuming that a difference would reflect any effect of respondent attrition. Means were nearly identical for the two groups, suggesting that results for schools included in our analyses represent patterns for the population.

# B2. Survey Scale Definitions

Survey scales were developed by the CRC at Stanford University using data from the 2008 and 2009 Inquiry Team Survey and 2010 Teacher Survey in New Visions PSO schools. Principal components analysis was used to identify survey items that load on a common factor; scale scores give equal weight to all component items. Alpha coefficients indicate the internal consistency of a scale and are reported here for 2009 data, the midpoint of our current three-year longitudinal analyses. We include here only those survey scales analyzed in the 2010 report, grouped by sections of the questionnaire.


## I. SCHOOL INQUIRY CULTURE AND LEADERSHIP


➢ *Culture of Assessment Use* (**2 items. Alpha = .81**)
   5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree")

   *How well does each of these statements describe **how teachers work together in your school or SLC** (if you teach in a large high school divided into SLCs)?*

|  | 2008 | 2009 | 2010 |
|---|---|---|---|
| We use a variety of assessment strategies to measure student progress | 3c | 3c | 3c |
| We use assessment data to evaluate our curriculum and instructional practices | 3d | 3d | 3d |


➢ *Leadership in School or SLC: Data-based Improvement* (**3 items. Alphas = .93**)
   5-point Likert-type frequency scale, ranging from 1 ("Never") to 5 ("Always")

   *Now consider **leadership in your school or SLC**. Please indicate the extent to which leader(s) do each of the following...*
   **School / SLC leaders...**

|  | 2008 | 2009 | 2010 |
|---|---|---|---|
| Use data to identify patterns to inform decision making | 4e | 4d | 4d |
| Use objective evidence to identify, frame and solve problems | 4g | 4e | 4e |
| Use data to evaluate the effectiveness of decisions | 4h | 4f | 4f |

## II. INQUIRY TEAM WORK IN THE SCHOOL

➢ *Facilitator Support of Inquiry Team* **(10 items. Alphas = .96)**
   5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree")

*To what extent does each of the following statements capture your* **Inquiry Team's experience with facilitator and principal support over the past year?** [Note: "facilitator" refers to the New Visions LDF working with your team or, if you participate in the SAM program, to your instructor.]

|  | 2008 | 2009 | 2010 |
|---|---|---|---|
| Facilitator conveys clear objectives and expectations for our work | -- | 11a | 11a |
| Facilitator creates structures for feedback and self-assessment on our behavior | -- | 11c | 11c |
| Facilitator elicits, respects, and incorporates multiple voices and perspectives | -- | 11d | 11d |
| Facilitator pushes us to think in new ways | -- | 11e | 11e |
| Facilitator helps us shift direction and make corrections when we reach an impasse | -- | 11g | 11g |
| Facilitator raises good questions that move forward our thinking about the work | -- | 11i | 11i |
| Facilitator pushes our learning even when it causes discomfort or anxiety | -- | 11j | 11j |
| Facilitator knows when not to push and how to contain anxiety | -- | 11k | 11k |
| Facilitator continually reinforces the core ideas of inquiry to widen the sphere of student success in the school  key concepts in inquiry | -- | 11n | 11n |
| Facilitator holds us to the performance standards for inquiry teams, specifically, moving the students | -- | 11o | 11o |

➢ *Principal Support of Inquiry Team* (**3 items. Alphas = .88**)
   5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree")

   *To what extent does each of the following statements capture your **Inquiry Team's** experience with facilitator and principal support over the past year?*

|  | **2008** | **2009** | **2010** |
| --- | --- | --- | --- |
| Principal establishes conditions for trust and open communication | -- | 11b | 11b |
| Principal actively supports our risk-taking | -- | 11f | 11f |
| Principal uses authority to push our learning in the service of target students and targeted learning goals | -- | 11h | 11h |

## III. PROFESSIONAL DEVELOPMENT AND INSTRUCTION

➢ *Teacher Preparedness: Address Student Skill Gaps* (**2 items. Alpha = .85**)
   4-point Likert scale, ranging from 1 ("Not at all Prepared") to 4 ("Very Well Prepared")

   *Over the past year, how well prepared have you felt to …*

|  | **2008** | **2009** | **2010** |
| --- | --- | --- | --- |
| Use data to identify students' skill gaps | 7j | 18j | 18i |
| Design instruction to address students' skill gaps | 7k | 18k | 18j |