

**Strategies Used by Four Delaware Elementary Schools
To Beat the Odds**

APRIL 2008

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PUBLICATION T2008.02.01

Executive Summary

This study is the second report on the *Beating the Odds Study* funded by the Delaware State Board of Education. The study was designed to address two questions:

- What Delaware schools are performing at a higher level on the Delaware State Testing Program (DSTP) than would be expected given their student demographic characteristics?
- What actions do these schools take that contribute to their higher level of student performance?

The first report, *Beating the Odds: A Study of Delaware Schools* (Buttram, 2007), addressed the first question; 29 schools were identified from three clusters of schools that serve students from primarily low-, middle-, or high-SES families. This report addresses the second question. It examines the strategies of four schools identified as performing at higher levels than would be expected. All four are elementary schools. One school was drawn from the low-SES cluster, two from the middle-SES cluster, and one from the high-SES cluster. All four schools had impressive records of student performance.

Recent research reports on the practices of successful schools framed the data collection in these schools (EdSource, 2005a, 2006; Herbert, Murphy, Ramos, Vaden-Kiernan, & Buttram, 2006; Marzano, Waters, & McNulty, 2005). Particular attention was given to strategies in nine domains, including prioritizing student achievement, implementing a coherent, standards-based instructional program, using data to improve student achievement and instruction, encouraging teacher collaboration and professional development, ensuring availability of instructional resources, enforcing high expectations for student behavior, involving and supporting parents, providing school instructional leadership, and providing district leadership and support.

Eight strategies were identified across the four schools, including setting specific goals by grade level for student performance on the state test, building a common language and framework for instruction, requiring quarterly assessments across all schools, conducting quarterly promotion and review meetings with teachers, expecting principals to conduct weekly walk throughs in all classrooms, supporting professional learning communities at each grade, providing instructional interventions to support struggling students, and scheduling “Data Day” at the end of each school year. These strategies, most likely, could not have been taken without strong school and district leadership and support.

The four schools differed in the intensity or level of commitment to each strategy. Some schools invested more resources in particular strategies than others, reflecting differences in the mix of personnel, students, priorities, and resources assigned to each school. The relative importance of each strategy could not be determined from the data collected in this study; it is likely that the combination of strategies was more important than any single one in these schools’ success. Several of the strategies began at individual schools and spread; others were initiated and fostered by the district.

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Introduction

This report documents the second stage of the *Beating the Odds Study* funded by the Delaware State Board of Education. The study was designed by the Delaware Education R&D Center (DERDC) to meet two purposes: 1) to identify public and charter K-12 schools in Delaware that are beating the odds, that is, outperforming expectations given the composition of their student populations, and 2) to learn what actions such schools are taking to achieve their success. Two research questions were identified to guide the study:

1. What Delaware schools are performing at a higher level on the Delaware State Testing Program (DSTP) than would be expected given their student demographic characteristics?
2. What actions are these schools taking that contribute to their higher level of student performance?

The first question was answered in an earlier report, *Beating the Odds: A Study of Delaware Schools* (Buttram, 2007). This report identified 29 schools that performed better than expected given their student populations based on analyses of 2006 DSTP scores. Sixteen of the 29 were elementary schools, 5 were middle schools, and 7 were high schools; these schools served students primarily from low-, middle-, or high-SES families.

Stage two of the study answers the second question above. DERDC conducted surveys and interviews in a small sample of elementary schools identified in the first stage to determine what actions they were taking to achieve these higher patterns of student performance. Answering the second question may also provide direction to other Delaware schools in focusing and strengthening their improvement efforts.

DERDC built on recent research reports on the practices of successful elementary schools to focus the data collection in the study's second stage. One study, *Similar Students, Different Results: Why Do Some Schools Do Better?* (EdSource, 2005a, 2006), in particular, was instrumental in its design. EdSource surveyed 257 California elementary schools serving low-income students on seven domains related to academic success (see Table 1 below). EdSource's findings revealed positive correlations between student achievement and four of these domains: prioritizing student achievement; implementing a coherent, standards-based instructional program; using assessment data to improve student achievement and instruction; and ensuring availability of instructional resources. The other three domains in the EdSource study did not correlate with academic success.

Table 1
Seven Domains of Successful School Practices

EdSource Domain	Features
Prioritizing student achievement	Importance placed by the school and district on setting clear, high, and measurable expectations for student achievement
Implementing a coherent, standards-based instructional program	Coherence of school's curriculum and instruction and their alignment with state standards
Using assessment data to improve student achievement and instruction	Frequency with which teachers reviewed and used assessment data to monitor student performance and inform instruction
Ensuring availability of instructional resources	Credentials and experience of educators along with availability of adequate classroom materials
Encouraging teacher collaboration and professional development	Teacher involvement in decision making, collaboration, and professional development
Involving and supporting parents	Active engagement of parents and support of parents and families
Enforcing high expectations for student behavior	Establishment and enforcement of policies related to student behavior

DERDC elected to examine our four schools on six of the seven EdSource domains, including the four that correlated with student success and two others, encouraging teacher collaboration and professional development and involving and supporting parents. The latter two were included because of broad interest across the state. The seventh domain, enforcing high expectations for student behavior, was not included because of its low correlation with student achievement in the EdSource study. Two other domains were added, school instructional leadership and district leadership and support because of recent research documenting the roles that principals and districts can play in supporting student achievement (Marzano, Waters, & McNulty, 2005; Herbert, Murphy, Ramos, Vaden-Kiernan, & Buttram, 2006). In summary, this study investigated the strategies that four Delaware elementary schools adopted to produce their success related to the domains described above.

Methodology

Sample

In consultation with the Delaware State Board of Education, DERDC focused this study on the practices of four elementary schools from a single district identified in stage one, i.e., performing better than expected on the 2006 DSTP state test given their student populations. One of the four schools was drawn from the high-SES cluster of schools

(Lord Baltimore), two from the middle-SES cluster (East Millsboro and Long Neck), and one from the low-SES cluster (Frankford). Examining four schools from the same district may also help us understand what role the district can play in supporting schools' efforts. Table 2 below provides a brief profile of each school.

Table 2
2006 Profiles of Four Elementary Schools

Variable	Lord Baltimore	East Millsboro	Long Neck	Frankford
Number of teachers	34.0	48.0	34.0	34.5
Percent of teachers with masters degree	66.7	60.3	48.8	42.6
Percent of teachers with 10 or more years of experience	64.3	55.2	55.8	46.8
Number of students	530	664	545	447
Percent of students from low income families	22.0	51.0	49.0	76.0
Percent of LEP students	0.0	7.0	0.0	23.0
Percent of special education students	19.0	21.0	18.0	19.0
Percent of students enrolled for full year	96.0	96.0	89.0	93.0
Student attendance percent	96	95	94	95
Percent of student body enrolled through school choice	0.5	0.4	8.4	11.5

Note. These data were based on information presented for the 2006 school year on the Delaware Department of Education web site <http://www.profiles.doe.k12.de.us>.

Although these four schools are all part of the same district, they present somewhat different pictures in terms of their faculties and students. Three of the schools have about the same number of faculty in spite of differences in the number of students enrolled. At least two-fifths of the faculty have master's degrees; almost half or more of the faculty have 10 or more years of experience in teaching. Student enrollments vary from a low of 447 to a high of 664. In three of the schools, almost half of the students come from low-income families, and in one school, almost a quarter have limited English skills. The schools are fairly stable in terms of transfers in and out, and have similar percentages of special education students and attendance patterns. Two schools have significant percentages of students who enroll through school choice options.

Measures and Data Collection Procedures

DERDC obtained a copy of the teacher survey used in the EdSource study (2005b). The survey included 63 multi-part items, running 29 pages in length. It was shortened for use in this study based on EdSource findings. Other items were added to address the two domains of school instructional leadership and district leadership. The final instrument contained 8 demographic items and 73, 4-point Likert items (see Appendix A).

DERDC posted the survey on a web site using Survey Monkey software (SurveyMonkey, 1999). An e-mail and one reminder (to increase response rate) were sent to faculty members by their respective principals, asking for their cooperation in completing the survey. Two principals opted to have their faculty complete the survey at the very end of the 2006-07 school year, two others chose to complete the survey at the start of the 2007-08 school year. Surveys were completed on-line. The response rates for each school are reported in Table 3 below.

A small sample of teachers was interviewed at each school, two per grade level, in February, 2008. The interviews followed up on survey responses, asking about setting goals, planning instruction, monitoring classroom instruction and student performance, providing support for struggling students, participating in professional development, and involving parents. Teachers also were asked to identify what was working well and what needed improvement in their schools (see Appendix B.) The teacher interview sample for each school is also presented in Table 3.

Table 3
Response rates

Teacher Sample	Lord Baltimore		East Millsboro		Long Neck		Frankford	
	n	Percent	n	Percent	n	Percent	n	Percent
Surveys	26	76.5	41	85.4	22	64.7	22	62.9
Interviews	14	41.2	12	25.0	10	29.4	11	31.4

In addition to the teacher interviews, the district superintendent and the four principals and four assistant principals¹ assigned to the schools were interviewed. The district superintendent was interviewed at the start to gain her support for the study as well as gather historical information about the district and its improvement efforts. The school leader interview protocol paralleled the teacher protocol, gathering more specific information about school operations and improvement efforts at the school level (see Appendix B); these interviews were conducted at the same time as the teacher interviews.

Analyses

Teacher survey data were analyzed by school using the Statistical Package for Social Sciences (SPSS, 2006). Item means, standard deviations, frequencies, and ranges were

¹ The principals and assistant principals are referred to as school leaders collectively.

calculated by school. Factor analyses were conducted to see if the pattern of responses across all schools reflected the eight domains of successful schools (SPSS, 2006). The analyses revealed that the pattern of responses did not cluster around the eight domains; instead, a single factor accounted for almost 40 percent of the variance in the responses, suggesting that the instrument measures overall successful school operations. Examination of the array of items that loaded highest on the first factor confirmed this; items focused on high expectations for student learning and performance, instruction focused on student needs, and the assessment of student performance.

Teacher interview responses were transcribed by the researcher during the interviews using a laptop computer. Although not verbatim, these transcripts provide a reasonable representation of their comments. A coding scheme was developed to reflect the range of comments to each item. The teacher transcripts were coded question-by-question and then tallied by the researcher. Text comments were pulled to illustrate key points. The district superintendent and school leader interviews were used to provide background and contextual information in interpreting the teacher interviews and not analyzed using the teacher coding system.

Individual survey ratings and responses to each interview question were then matched to the eight domains that were used to frame the investigation, based on the original intent of the survey item or interview question. Survey items or interview questions were sometimes assigned to multiple domains because they tapped strategies reflective of more than one domain. For example, the survey item, “The principal communicates clear expectations to teachers for meeting student achievement goals” potentially measures two domains, providing school instructional leadership and prioritizing student achievement. Similarly, the interview question, “How do you plan instruction?” provided answers related to two other domains, implementing a coherent, standards-based instructional program and encouraging teacher collaboration and professional development. The matched sets of data (i.e., domain, survey responses, interview responses) were then analyzed to determine whether they confirmed or supported the contribution of these strategies to the schools’ success. Survey items that were analyzed for each domain are presented in summary tables below; the alignment of interview questions and domains is reported in Appendix C.

Findings

Strategies in seven of the eight domains were found across the four schools: 1) prioritizing student achievement, 2) implementing a coherent, standards-based instructional program, 3) using achievement data to improve student achievement and instruction, 4) ensuring availability of instructional resources, 5) encouraging teacher collaboration and professional development, 6) providing school instructional leadership, and 7) providing district leadership and support. The remaining domain, involving and supporting parents, was present to some degree in each school, but school leaders’ and teachers’ reports did not identify specific strategies in this domain that contributed to their improvement of student achievement.

School pseudonyms are used consistently throughout the remainder of this report. Teacher mean item ratings and interview responses are not referenced to particular school buildings to protect the confidentiality and privacy of the respondents.

Prioritizing Student Achievement

This domain examined the importance that schools place on setting clear, high, and measurable expectations for student achievement (EdSource, 2005a). Successful schools have well-defined plans for instructional improvement and give priority to meeting specific goals for student achievement.

Survey ratings confirmed that student achievement is a high priority at all four schools (see Table 4 below). Teacher ratings were the most positive for this domain of items.

Table 4
Teachers' Ratings of Prioritizing Student Achievement Survey Items

Prioritizing Student Achievement Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
This school has a clear vision that is focused on student learning.	3.73	.45	3.32	.48	3.68	.48	3.15	.61
The principal communicates clear expectations to teachers for meeting student achievement goals.	3.80	.40	3.14	.47	3.27	.70	3.19	.57
The principal visits classrooms each week in our school to monitor instruction.	3.37	.54	3.18	.80	3.00	.81	3.00	.80
What teachers are doing in the classroom matches administrators' expectations for learning.	3.76	.44	3.32	.72	3.55	.51	3.27	.45
Teachers take responsibility for student achievement.	3.71	.46	3.41	.50	3.55	.60	3.27	.45
Each student is expected to achieve to high standards.	3.85	.36	3.45	.60	3.73	.46	3.42	.50
Our school creates an environment that encourages all students to learn.	3.95	.22	3.86	.35	3.77	.43	3.38	.50
This school has a well-defined plan for instructional improvement.	3.85	.36	3.18	.50	3.50	.60	3.00	.49

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00). The mid-point, or mean of 2.50, indicates that respondents were divided in the number of individuals that agreed or disagreed with a particular item.

Teachers confirmed that their school’s vision focused on student learning, students are expected to achieve high standards, teachers are responsible for student achievement, the school creates an environment that encourages all students to learn, and their school has a well-defined plan for instructional improvement. In addition, the principals in these four buildings communicate clear expectations to teachers for meeting student achievement goals and visit classrooms weekly to monitor instruction.

This sense of accountability was reinforced in teachers’ interview responses. When asked about goals for their classroom or school, the majority of teachers replied that they set goals for student performance on the state test. Teachers clearly understood that they were accountable for these goals and that student performance had to increase each year. Some of the teachers talked about it as a school responsibility, others as a grade level responsibility, and still others as a personal responsibility. The majority of teachers saw it as a school- or grade-level responsibility, a shared responsibility. This sense of collective responsibility is underscored below in teacher’s use of the plural pronoun “we” in setting and meeting student achievement goals. The expectation to improve scores each year also is highlighted. ²

...we look at how we did last year, our goals last year and what we achieved, we set higher goals for the coming year...You’re going to move up a set amount. (100)³

Yes, on the data day, we look at test scores, and then...based on that...we had 100 percent met math, so maintaining that goal. You’re not allowed to set lower. So we try to maintain or go up. (119)

We have expectations for school-wide percentages of students that have to meet the standard. We all work together, even though some grades have responsibilities that are high stake. (136)

We are very data driven. We are one [school] that does very well, but we are always second guessing. There’s always pressure that you got to do better. I think it’s a needed pressure, it keeps us from getting relaxed. (158)

Two teachers even noted that their student test scores are recorded on their annual teacher appraisal forms, reinforcing the pressure that teachers feel for student achievement goals. (76, 89)

This sense of accountability is reinforced throughout the school year. All four schools schedule promotion and review meetings where school leaders and individual teachers review the performance of students in each classroom on the quarterly assessments and/or

² Teacher and school leader quotations are marked by indented text. Their school affiliations are not reported to protect their confidentiality.

³ These numbers reference quotations from the interview logs.

report cards. Teachers reported that these meetings focus on first identifying particular students that are scoring low on the quarterly assessments or have failing report card grades and then determining what steps (or interventions) should be taken next. These meetings are not punitive in nature, but teachers come prepared to discuss what they have done so far to address struggling students' needs and what should be done in the future. Responsibility for these students' learning is clearly communicated and understood. Over time, these quarterly meetings also help school leaders track the progress of struggling students as well as teachers who are having difficulty responding to students' needs.

All four schools also schedule a "Data Day" at the end of the school year. During "Data Day," teachers meet in grade levels to review and discuss all the assessment data they have gathered on their collective group of students. Although particular attention is given to performance on the recently returned state test results, the teachers have access to quarterly and other assessment data and interventions that were tried with low-performing students and their impact. These data inform the substantive discussion by teachers of the effectiveness of the past year's instructional program and plans for the coming year. The key questions to answer are what worked well this year, what's your proof, and how are we going to improve next year.

In addition to setting goals and regularly reviewing student performance, principals in this district are expected to visit classrooms regularly. Across the four schools, 72.3 percent of the teachers reported that principals visit their classrooms weekly to check on what the teacher(s) and students are doing (e.g., following LFS lesson format, engaging students actively in the lesson); the same percentage noted that they seldom or never receive feedback during these walk throughs. Nevertheless, the principal visits reinforce expectations for student learning in the classroom.

In talking with both school leaders and teachers, what was equally striking was what was not said. All of these schools enroll significant and growing numbers of students who come from impoverished family backgrounds (see Table 2). Although a number of teachers mentioned the challenges these students faced, none were willing to lower the bar for their achievement. As one teacher observed,

...we're their only chance. We know that without us, they won't learn it, and they won't get it unless we give it to them here. Because of the kids, we are motivated to work really hard here.
(19)

Teachers emphasized that the stakes are very high for their children. The future for these children is limited without the education provided by their schools.

Implementing a Coherent, Standards-Based Instructional Program

This domain focuses on whether the school’s curriculum and instruction are coherent and aligned with state standards (EdSource, 2005a). It measures the extent to which the curriculum is aligned and whether teachers follow this curriculum in their classrooms. It also examines the amount of time devoted to reading and mathematics instruction and the extent to which these subjects are protected from interruption and integrated with other subjects.

This school district’s curriculum is standards-based and aligned with the required state curriculum. The district has invested heavily over time in the Learner Focused Strategies program (LFS) that visualizes what instruction should look like in the classroom (e.g., concept maps, essential questions to focus a lesson, activating strategies to engage the students, summarizing activities at the end of each lesson). LFS provides teachers with a common framework for talking about instruction as well as for developing their daily lessons. The district has offered professional development in this approach for several years and now requires teachers to follow this lesson format in all of their instruction. Weekly principal walk throughs reinforce the use of this instructional approach in the classroom, although principal monitoring using district-developed procedures (i.e., 5x5s) have dropped off over time. District leaders also visit each school annually to conduct similar walk throughs. In addition, the district has recently invested professional development resources to involve all teachers in translating the current standards-based curriculum benchmarks into the grade level equivalent format (GLEs) recently adopted by the state department of education.

Survey responses demonstrate the use of the standards-based curriculum and LFS framework across all four elementary schools (see Table 5 below). In particular, teachers responded very positively to the last item in this set, “their school’s vision of high quality instruction is evident in classrooms every day,” underscoring their understanding of what quality instruction looks like and its prevalence in their classrooms. Teachers also rated positively the identification of essential/key standards for each grade level, the use of state standards to guide what they teach, and the alignment of the reading and mathematics curricula with state standards. Lower ratings were given to the sharing of curriculum and instructional approaches among teachers in each school, suggesting that more work is needed to further embed the LFS framework in teacher discussions.

Table 5
Teacher Ratings of Coherent, Standards-Based Instructional Program

Coherent, Standards-Based Instructional Program Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
This school has identified essential/key standards for each grade level.	3.61	.49	3.27	.63	3.36	.58	3.00	.69
Teachers use the state standards to guide what they teach.	3.56	.50	3.45	.51	3.64	.49	3.42	.50

Coherent, Standards-Based Instructional Program Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Teachers have detailed knowledge of the content covered by other teachers at our school.	3.34	.53	2.55	.67	2.91	.53	2.85	.78
Teachers have detailed knowledge of the instructional methods used by other teachers at our school.	3.41	.50	3.00	.69	3.18	.66	2.81	.63
Curriculum and instruction is consistent across all classrooms at each grade level.	3.34	.62	3.14	.77	3.09	.81	2.85	.61
Curriculum and instruction is consistent across grade levels.	3.41	.50	3.18	.73	3.00	.76	2.96	.53
Teachers make adjustments in their instruction based on areas where students encounter problems.	3.66	.48	3.36	.49	3.55	.51	3.27	.53
The reading curriculum materials are aligned with state standards.	3.15	.73	3.27	.46	3.41	.67	3.19	.57
The mathematics curriculum materials are aligned with state standards.	3.49	.51	3.32	.57	3.77	.43	3.31	.47
Reading instruction is protected from unnecessary interruptions.	3.29	.46	2.68	.72	3.00	.62	3.15	.46
Mathematics instruction is protected from unnecessary interruptions.	3.24	.44	2.82	.73	3.09	.68	3.12	.43
Reading instruction is integrated with other subjects in this school.	3.37	.66	3.23	.43	3.36	.49	3.31	.55
Mathematics instruction is integrated with other subjects in this school.	3.12	.60	2.82	.40	3.05	.58	3.04	.53
The reading curriculum meets the needs of the majority of my students.	3.12	.71	2.86	.77	2.95	.65	2.96	.53
The mathematics curriculum meets the needs of the majority of my students.	3.24	.77	3.09	.53	3.27	.63	3.19	.40

Coherent, Standards-Based Instructional Program Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Specific intervention plans are in place for students who do not meet expected proficiency levels.	3.68	.52	3.14	.64	3.68	.48	2.88	.65
Our school’s vision of high quality instruction is evident in our classrooms every day.	3.80	.40	3.45	.51	3.68	.48	3.35	.49

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

Teacher interviews confirmed the adoption of a common language and framework for instruction. When asked to describe how they planned instruction, two-thirds of the teachers referenced LFS elements (66.0 percent); three-fifths also referenced the state standards or GLEs currently being developed (61.2 percent). As one teacher noted, these “central strategies...make it easier for the children to go from one grade to the next.” (29)

Teacher interview responses added more detail on their use of standards, LFS strategies, and GLEs in their planning routines.

I start with the content standards, what are the expectations, I always look at those. The GLEs have helped, we did a lot of work on them...I then narrow down, into the subject areas, into the concepts, and then like an upside down paragraph, what is the big idea, and work it out. I do some of this by myself and some with the team. It’s sort of split, we do a lot of big picture, as a group, work on our essential questions, as a team. And then once we have those, individually, you decide how you want to go about it. (11)

We incorporate the essential questions that we have to follow. We have to have [our] concept map up, we have the essential questions up...The teaching plan, the one big thing that helps us, constantly going back to the standards, constantly I’m making sure that I’m covering everything, that it’s aligned with the standards. Anything that I pull, to add, to supplement, that is aligned. The district together has done the essential questions in math and reading. And this is the first year that the maps are completed. So now instead of us having to do so much individually, then you can pull out the maps. (31)

I plan instruction, I use the same lesson format every day. I use an activating strategy to introduce the topic, teaching time, then they have to do some summarizing activity...We plan, we have a

PLC [professional learning community⁴] every Thursday, so that we're all around the same area. We do plan together, we do it alone too. We might not all have the same activities...we have the same curriculum maps, essential questions, and then we adapt to our classroom.(46)

...we're doing the GLEs, we have PLC, we have 12 themes that we have to cover. We look at the focus of each theme, and we use the LFS strategies. We use the EATS model, look at what has worked in the past, trying to follow the GLEs. (56)

We do the LFS, EATS⁵ lesson...We have had a lot of professional development on it...we are trying to break the math lessons into LFS lessons. I'm now using it more than my textbook. If you came into my classroom, that's what is on my front table. (156)

Although not used exclusively by all teachers in the four schools, the LFS approach along with ties to the state standards and GLEs contribute significantly to a common approach to instruction. They also provide teachers with a way to share lessons and instructional strategies. As two teachers commented,

The district...started the ball rolling, GLEs and LFS, they're pretty much in place. We tried to talk before, but you didn't know where the teacher across the hall was, you didn't know what each other was doing. (121)

We are not in this alone. Being able to share with others. That's one thing that has gotten better over time. This is our fourth year, we share even more. You're not the only one trying to figure out the best lesson...You don't get intimidated, you can ask what their opinion is. And then you learn, you learn more ideas. (126)

Using Assessment Data to Improve Student Achievement and Instruction

Using assessment data to improve instruction and student learning is correlated with successful school practices (EdSource, 2005a). This domain examined the frequency which teachers reviewed assessment results and used them to improve instruction.

Teacher survey ratings were consistently high on this domain (see Table 6). Teachers agreed that their school uses tests aligned with the state standards to monitor student progress, that they routinely disaggregate data to assess how students are doing, and that

⁴ A professional learning community is a group of teachers who work together on meaningful activities related to teaching and learning.

⁵ EATS refers to an LFS lesson format, including essential questions, activating strategy, teaching, and summarizing activity.

they use data to place students into instructional groups, focus instruction, and assess the effectiveness of their instructional improvement efforts.

Table 6
Teacher Ratings of Achievement Data Use

Using Achievement Data Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Our school uses tests aligned with the state standards to monitor students' progress during the school year.	3.61	.49	3.41	.59	3.41	.50	3.15	.46
Our school routinely disaggregates student data to assess how well we're doing.	3.71	.51	3.23	.53	3.32	.57	3.04	.45
Our school assesses the effectiveness of its plans for instructional improvement.	3.73	.45	3.14	.56	3.41	.67	2.96	.53
Teachers use student achievement data to determine what to focus instruction on in their classrooms.	3.68	.52	3.27	.46	3.55	.51	3.19	.49
Teachers use assessment data to place students into instructional groups.	3.71	.46	3.32	.57	3.59	.50	3.19	.49
Teachers receive disaggregated student achievement data by subgroups and skill areas.	3.66	.53	3.09	.61	3.32	.57	2.96	.60

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

In teacher interviews, teachers pointed to the quarterly assessments that all schools must administer to monitor student progress. These assessments were developed by teachers across the district in grade level groups; they are aligned to the state standards and district's curriculum. As noted earlier, teachers meet in grade level groups (i.e., professional learning communities, PLCs) and with school leaders to review the results of these quarterly assessments. "Data Day" scheduled at the end of the year provides teachers with another opportunity to review all of their student data. One school, in particular, has led this effort in the district, creating and maintaining a database with assessment data on each student from her/his initial enrollment; teacher ratings from this school were markedly higher than the other three schools on this domain (see Table 6 above).

In the interviews, teachers listed the wide array of methods used to monitor student learning, including daily interactions with students in class, reading assessments (e.g., timed reading, DIBELs), student assignments and homework, monthly checklists, teacher-developed quizzes and tests, paper-and-pencil curriculum-based assessments,

computer software assessments, district quarterly assessments, grades, and the state test. However, as several teachers noted, it's not just having the data, it's knowing what to do with the data.

What we're really good at, diagnosing, assessing, we're data driven. We figure out what kids need and give it to them. We know what works, what we have to do. (137)

We are constantly on feedback...when we do our theme tests, we say what did the whole group miss, what did these kids miss, we figure out where we need to go back and re-teach, and constantly looking at what we have to do over. (40)

I think the fact that we know...that we have a lot of data on our kids. From day one, we know what to do to help them. They can get the help that they need. (70)

We keep a lot of data, we are a data school. We just don't keep the data, we look at what's going on, we can unlock the data to see what it says. (78)

All four schools are very strong in both assessing student performance and mining these data to adjust and modify their instruction.

Encouraging Teacher Collaboration and Professional Development

This domain addresses the extent to which opportunities exist for teacher collaboration and professional development. Research suggests that teachers who work together in meaningful activities are more effective than teachers who work in isolation (DuFour, 2004; DuFour & Eaker, 1999; Hord, 2003); these groups are often referred to as professional learning communities (PLCs). Professional development opportunities strengthen teachers' knowledge and skills in fostering student learning.

Teacher survey ratings were positive for this domain of items, with only a few item means below 3.00 on a 4.00 scale. Teachers highly rated opportunities for grade levels to meet and plan instruction and review student learning (see Table 7 below). Teachers also reported that professional development is directed at helping them improve student learning in their classrooms. Teachers are encouraged to take on leadership responsibilities, particularly in terms of identifying and filling gaps in the instructional program.

Table 7
Teacher Ratings on the Collaboration and Professional Development Domain

Collaboration and Professional Development Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Grade levels meet to plan instruction and review student learning.	3.76	.44	3.50	.51	3.64	.49	3.08	.63
The purpose of professional development programs is to improve student learning.	3.51	.55	3.18	.66	3.32	.57	3.31	.55
Our professional development programs match the school's priorities.	3.51	.51	3.14	.56	3.36	.49	2.88	.52
Professional development actively engages teachers in improving instruction in their classrooms.	3.34	.62	3.14	.56	3.27	.63	2.88	.59
Research-based instructional strategies are the focus of our professional development.	3.63	.49	3.45	.60	3.50	.51	2.96	.60
Teachers have received adequate training in the current reading program.	3.27	.50	3.14	.47	3.32	.57	3.08	.48
Teachers have received adequate training in the current mathematics program.	3.41	.50	3.09	.61	3.50	.60	3.27	.53
This school dedicates time at staff meetings to discuss student achievement.	3.76	.49	3.09	.53	3.27	.70	2.85	.78
Teachers are involved in making important decisions at this school.	3.24	.54	2.73	.70	3.00	.82	2.73	.78
The principal encourages teachers to take a leadership role in this school.	3.54	.51	3.09	.61	3.14	.89	3.00	.69

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

This district has invested in building PLCs in each of its schools. PLCs provide opportunities for teachers to work together in a variety of ways to meet student needs. The superintendent stressed that the district's investment in PLCs provided a forum for subsequent professional development on LFS to take hold. As PLCs grew and flourished, teachers could come together to discuss teaching and learning using the LFS framework. The adoption of LFS could not have taken place without the PLC structure to support it.

In the four schools, each grade level was encouraged to become a PLC, working together to plan instruction and assessments, review and discuss student learning, and share

resources with each other. Each school has set aside time during the school week for grade level PLCs to meet; the schedule and frequency of meetings varies from school to school. One school, in particular, has rearranged its schedule to give teachers three opportunities to meet weekly; the other three schools have less frequent schedules. Minutes of PLC meetings are kept in at least one school and distributed to other grades levels to keep everyone informed. PLCs are extremely useful in orienting new teachers, both in building relationships with other teachers as well as their knowledge of the curriculum at their grade level. In all four schools, either the principal or assistant principal (or the reading specialist) tries to attend PLC meetings; several acknowledged that their attendance varies depending on their schedule and teachers' comfort with their presence.

Teacher responses further described what happens in PLCs and what these opportunities mean to them.

...we meet all the time, every week we have PLC, and we eat lunch together. We try this, how did you do this, how did you teach this concept? (12)

When I first started teaching, we didn't have opportunities to plan together. And you really felt cut off. And now, we really know what's going on, it doubles what you have as resources. (109)

We're all on the same page. The dialogue has been phenomenal. I love it! At my previous school, I worked by myself. I enjoy being part of a team. (107)

...team planning really works. It keeps us all on the same page, the level of what we expect, what the students are to achieve is agreed on. One teacher is not doing her own thing, we're all doing the same thing, and we all work together. The communication is very open and that really helps. (16)

So our strength is our PLC, we have support. It's a little hard to stick to the expectations when you're doing them individually, but when we're in a group, it's a lot easier, the support from each other helps. We are able to talk vertically, with the team above us, and below us, we have common goals that fit together. (29)

That our teachers are willing to try anything, that they are willing to take risks, they work together, we're all in this together. We all share in their progress and their accomplishments, and when they're weak, we take ownership for that as a group as well. I think everybody believes in what we're doing. (41)

These thoughts highlight the sense of professionalism, collegiality, and support established within the PLCs in each school. Teachers rely on each other to plan and assess their instruction to support student learning.

Ensuring Availability of Instructional Resources

This domain focuses on instructional resources, whether schools are staffed with capable individuals and stocked with adequate instructional materials (EdSource, 2005a). A school’s success is dependent on the resources at its disposal. In these four schools, the focus on resources moved beyond personnel and textbooks and supplies to focus on the availability and adequacy of resources for interventions to support struggling students. Additional survey items were included in analyzing the data for this domain.

Although somewhat lower than ratings on other domains, all but one teacher survey rating was positive (greater than 2.50) on the relevant items (see Table 8 below). Teachers agreed that their instructional resources are adequate and that the school budgets support their priorities.

Table 8
Teacher Ratings of Availability of Instructional Resources

Availability of Instructional Resources Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
My classroom has the current version of the reading textbook(s).	2.88	1.05	2.45	1.10	2.68	1.00	2.69	.88
My classroom has the current version of the mathematics textbook(s).	2.73	1.05	3.09	.92	3.32	.65	2.54	.81
Every student in my classroom has a copy of the reading textbook(s).	3.49	.71	3.05	.95	3.45	.74	3.38	.70
Every student in my classroom has a copy of the mathematics textbook(s).	3.46	.81	3.18	1.01	3.41	.73	3.46	.76
The school budget directly supports its priorities.	3.24	.66	2.64	.66	2.73	.83	2.58	.64
This school has a well-defined plan for instructional improvement.	3.85	.36	3.18	.50	3.50	.60	3.00	.49
Teachers make adjustments in their instruction based on areas where students encounter problems.	3.66	.48	3.36	.49	3.55	.51	3.27	.53
The instructional needs of ELL students are addressed at this school.	3.37	.58	3.50	.60	2.55	.80	2.85	.61

Availability of Instructional Resources Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
The instructional needs of special education students are addressed at this school.	3.49	.64	3.23	.75	3.64	.49	3.15	.61
The reading curriculum meets the needs of the majority of my students.	3.12	.71	2.86	.77	2.95	.65	2.96	.53
The mathematics curriculum meets the needs of the majority of my students.	3.24	.77	3.09	.53	3.27	.63	3.19	.40
Specific intervention plans are in place for students who do not meet expected proficiency levels.	3.68	.52	3.14	.64	3.68	.48	2.88	.65

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

In addition, teacher survey ratings confirmed that all four schools have a well-designed plan for providing assistance to struggling students and that intervention strategies are in place for struggling students (see Table 8 above). Teachers across all four schools confirmed that ELL and special education students' needs are addressed. All of these schools have mainstreamed most of their special education students into team-staffed classrooms and the success of this initiative was pointed out by several teachers.

In the teacher interviews, resources became most important as they talked about the availability and adequacy of interventions for struggling students. All four schools take pride in their capacity to measure and track student learning. Over time, all four schools have figured out options to provide assistance to these students, usually involving additional attention by a teacher, paraprofessional, or volunteer in or outside the classroom. As one school leader noted, "we have a lot of kids that need help, to provide the interventions is what makes the difference for these kids." (8)

In three of the four schools, the majority was satisfied with the adequacy of resources to meet struggling students' needs.

In other schools where I worked, they didn't get the help. This is the first school where I worked where we get the help. A lot of tutors, retired teachers. I don't know where they get the money for it, it really makes a difference. (88)

Teachers were quick to add that intervention resources strategically "go to the tested grades. We just don't have enough resources to go around," (73) and that additional resources would be welcomed. In the fourth, high-SES school, teachers disagreed that resources were adequate; they noted that funds to support interventions were directed towards other schools with higher percentages of disadvantaged students. Teachers in two

of the four schools also cautioned that the “resources are just not there for middle [achieving] students who would benefit from additional challenges.” (40)

Teacher interview responses documented the array of interventions for struggling students, including flexible reading groups, reading and math tutoring, small pull-out groups in reading and math, mentoring, computer software, afterschool homework sessions, state test preparation, guidance and tips from the special education and reading teachers, and assignments for parents to complete with students. These interventions were supplied by regular classroom teachers and non-academic specialists (e.g., art and music), paraprofessionals, school leaders, retired educators, and parent and community volunteers. They were offered before, during, and after school, including during lunch and recess. One teacher remembered that it “took a lot to get her school going” (21) to give students the opportunities they needed, and that school leaders and teachers worked many hours and wrote numerous grants to identify and find the resources to support all of these interventions. A small minority of teachers and school leaders (9.0 percent) identified problems with the current arrangements for providing interventions to students; they felt that coordination could be improved between classroom teachers and the providers of extra help and that some students are out of class too much because of all of the interventions available to them.

Providing School Instructional Leadership

This domain examines the roles that the principal and assistant principal play in crafting a successful school (Marzano, Waters, & McNulty, 2005). Items assess their establishment and communication of a vision for the school, shaping of the instructional program, management of the resources to support student learning, interactions with faculty and students, and evaluation of the effectiveness of the school.

Teacher ratings were consistently positive in this domain (see Table 9 below). Highest rated were principals’ efforts to communicate a clear vision for the school and setting of high standards for student learning.

Table 9
Teacher Ratings of Principal Instructional Leadership

School Instructional Leadership Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
The principal reviews my students' achievement data with me.	3.46	.51	2.82	.73	3.05	.72	2.92	.63
The principal communicates clear expectations to teachers for meeting student achievement goals.	3.80	.40	3.14	.47	3.27	.70	3.19	.57
The principal communicates a clear vision for this school.	3.85	.36	3.14	.47	3.41	.59	3.04	.66
The principal sets high standards for student learning.	3.83	.38	3.55	.67	3.64	.49	3.19	.57
The principal is knowledgeable about state standards and curriculum.	3.80	.40	3.27	.70	3.14	.77	3.19	.57
The principal suggests instructional strategies to use in my classroom.	3.51	.60	2.91	.53	2.64	1.00	2.96	.77
The principal provides support for classroom order and discipline.	3.78	.42	2.86	.71	2.86	.90	3.15	.61
The principal visits classrooms each week in our school to monitor instruction.	3.37	.54	3.18	.80	3.00	.81	3.00	.80
What teachers are doing in the classroom matches administrators' expectations for learning.	3.76	.44	3.32	.72	3.55	.51	3.27	.45
The principal ensures that teachers have time for planning in this school.	3.80	.40	3.55	.60	3.64	.58	3.19	.49
The principal praises and recognizes teachers for their contributions to student learning.	3.61	.54	3.00	.76	3.18	.80	3.19	.70
The principal provides teachers with adequate instructional materials.	3.71	.46	3.00	.62	3.27	.63	3.15	.46
The principal arranges for professional development for teachers to improve instruction.	3.61	.49	3.05	.49	3.36	.66	2.88	.71
The principal encourages teachers to take a leadership role in this school.	3.54	.51	3.09	.61	3.14	.89	3.00	.69
The principal ensures that teachers use the adopted curriculum.	3.59	.50	3.09	.61	3.05	.84	3.15	.54

Almost all of the teachers' responses were positive about the roles that their principals play in their schools. As noted above, principals regularly visit classrooms to check on instruction and meet with individual faculty to review quarterly assessment results. All of the school leaders acknowledged that it is important for them to be out in classrooms, to monitor instruction, and to check on student engagement. This is an expectation set by themselves as well as the district office. Nevertheless, they grumbled that management issues too often "sidetrack" (50) them from carrying out instructional leadership duties.

The involvement of school leaders in PLCs varied across the four schools. During their interviews, all eight reported that they planned to participate. School leaders at two of the schools often missed because of scheduling conflicts, though one of the two schools had rearranged its schedule to increase the likelihood that at least one of the two school leaders will be able to attend. Leaders in the school with more regular attendance noted that they tend to listen more than actively participate, but "will jump into the fray when necessary." In the fourth school, the principal "found that they didn't say anything when I was there. Now I don't go to each one [though] I usually learn what is going on." (131)

Teachers also described the support they receive from the eight school leaders. All of them reported that the principals and assistant principals have an open-door policy and that they "can go in whenever they need to see them." (57) Several pointed to the high level of professionalism and respect with which they are treated.

[The principal] respected you and valued you...makes you want to give forth your best effort. (74)

In this school, it is so open. They throw an idea out. What do you want to do? They don't say it has to be done tomorrow, we have time. We are part of the process. (98)

...They are very gracious about telling us how good we are. We deserve the kudos. When we decided we wanted to departmentalize, [they] were supportive. When we wanted to use social studies, non-fiction readers, they said go for it. (108)

This sense of professionalism was echoed by several school leaders.

We back our teachers, we'll let them go, we trust them. (93)

I know my staff is on the right track. (94)

Providing District Leadership and Support

This domain measures the presence of district leadership and support for schools. District offices can be instrumental in offering professional development and developing curriculum and assessment throughout the school year (Herbert, et al., 2006).

Teacher survey ratings on this domain were generally positive, though not as positive as ratings on many of the other domains. Teachers gave their highest ratings to the district prioritizing student achievement, expecting all schools to improve student achievement, and providing information about state standards and curriculum (see Table 10).

Table 10
Teacher Ratings of District Support

District Leadership and Support Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
The district prioritizes student learning and achievement.	3.56	.50	3.41	.50	3.41	.59	3.19	.49
The district expects all schools to improve student achievement.	3.68	.47	3.50	.51	3.68	.48	3.42	.50
This district provides information about state standards and curriculum.	3.49	.51	3.27	.63	3.45	.51	3.23	.43
The district provides instructional resources and support.	3.49	.55	3.23	.53	3.32	.57	3.04	.34
The district provides up-to-date instructional materials.	2.83	.74	2.55	.74	2.68	.72	2.65	.62
This district offers helpful professional development activities to support instructional improvement.	3.29	.60	2.86	.64	3.00	.76	2.77	.43
The district encourages teachers to take a leadership role in the district.	3.12	.68	3.05	.72	3.05	.65	3.08	.48
This district praises and recognizes teachers for their contributions to student learning.	3.02	.57	2.77	.53	2.91	.61	2.88	.71

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

Teacher interviews revealed that most did not know the district origins of the PLC or LFS professional development and support. Most did not see the district office as a resource or support to individual schools or teachers. Few teachers could point to specific instances of support from the district office except in terms of personnel issues. The exceptions were those that served on district-wide committees or had been employed for many years in the district and had established professional and personal ties with individuals who had been promoted over time into the district office. In spite of the lack of contact, most felt that if they needed help from the district office, all they had to do was ask.

Although not recognized, the impact of the district office was clearly felt. These schools benefited from the district’s investment in developing a coherent and standards-based instructional program; providing professional development related to PLCs, LFS, and GLEs; and supporting development of common quarterly assessments, quarterly promotion and review meetings, and “Data Day.”

Involving and Supporting Parents

This domain looked at both the school’s active engagement with parents and its support of parents and families (EdSource, 2005a). Of concern are teachers’ practices in involving parents in students’ education, the district’s success in building the community’s confidence in the school, and the principal’s relationship with parents.

Teachers’ ratings on this domain were positive (see Table 11). Most agreed that the community and school share a common vision for their children, teachers and parents work together to improve student learning, and teachers use assessment results to inform parents of their child’s progress. Many agreed that there is a high level of trust among administrators, teachers, and parents that supports their efforts to work together.

Table 11
Teacher Ratings of Involvement and Support of Parents

Involving and Supporting Parents Survey Item	Branch		Carver		Bay View		Calvert	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Teachers use assessment results to inform parents of their child’s progress.	3.71	.46	3.27	.46	3.55	.51	3.27	.53
Our school helps parents learn how to support their child’s development of reading and mathematical skills.	3.39	.59	2.50	.60	3.09	.43	3.12	.59
The community and school share a common vision for their children.	3.29	.60	2.86	.47	3.00	.69	3.27	.53
Teachers and parents work together to improve student learning.	3.22	.57	2.86	.47	2.82	.80	3.19	.57
There is a high level of trust among administrators, teachers, and parents in our school that supports working together.	3.49	.60	3.00	.62	2.91	.87	2.96	.66

Note. Mean item ratings can range from positive (strongly agree, 4.00; agree, 3.00) to negative (disagree, 2.00; strongly disagree, 1.00).

Interview responses reinforced the positive relationships between schools and the families and communities they serve. Almost all teachers noted that the relationship was positive, pointing to the large number of outreach activities that the schools undertake and partnerships in the community. Among the former are weekly notes and folders that go home to parents with their children's work and activities to complete, family literacy and math nights, monthly family movie nights, clothing and food banks, and dinners and gift baskets at holiday times.

Teachers at only one of the four schools, however, consistently reported the active engagement of parents in their children's learning. In this school, teachers reported that

We have a lot of parent involvement, mentors, volunteers, and people who don't have children here still volunteer. (138)

The families are very involved. Parents here, are 100 percent dedicated. The parent involvement is huge. If they don't understand, if they have questions, they write notes, they call, they follow up. (143)

You can approach parents at this school, they want their children to succeed, they will do whatever it takes.(155)

This is the best thing, the parents...I had a conference with a parent on Friday, and she had substandard English, and she was telling me what she was doing to help her child learn. (178)

Several teachers also mentioned that parents use school choice options to send their children to these four schools, an indicator of the schools' reputations.

Summary and Conclusions

Eight strategies were identified across seven domains that contributed to these four schools impressive record of student achievement. Table 12 lists these strategies and the domains of successful school practices they represent. They include setting specific goals by grade level for student performance on state test, building a common language and framework for instruction, requiring quarterly assessments across all elementary schools, conducting quarterly promotion and review meetings with individual teachers, expecting principals to conduct weekly walk throughs in all classrooms, supporting professional learning communities at each grade, providing instructional interventions to support struggling students, and scheduling "Data Day" at the end of the school year. These strategies could not likely be taken without strong school instructional leadership and district leadership and support.

Table 12
Strategies Undertaken by Case Study Schools

Strategies Undertaken by Case Study Schools	Research-Based Domain							
	Prioritizing Achievement	Coherent, Instruction	Using Data	Teacher Collaboration	Instructional Resources	School Leadership	District Leadership	Parent Involvement
Setting goals for student performance on state test	X			X		X	X	
Building a common language and framework for instruction		X		X			X	
Requiring quarterly assessments	X	X	X				X	
Conducting quarterly promotion and review meetings	X		X			X		
Expecting principals to conduct walk throughs	X	X				X	X	
Supporting professional learning communities	X	X		X			X	
Providing instructional interventions to support struggling students	X		X		X	X		
Scheduling “Data Day” at end of school year	X	X	X	X	X	X	X	

Many of the strategies listed above cut across multiple domains. For example, setting goals for student performance on the state test not only relates to the prioritizing student achievement domain, but also taps domains related to teacher collaboration (teachers set these goals by grade level), school instructional leadership (because school leaders review them with teachers), and district leadership and support (because they review them too). In addition, each of the eight domains is addressed by multiple strategies. Effective improvement efforts are more likely to take hold and become part of the school norms and routines when they serve multiple purposes and needs; those that are narrower in scope are more likely doomed for extinction given the busy lives of school leaders and faculties.

The concept of academic press comes to mind when reviewing many of the strategies adopted by the four elementary schools. McDill, Natriello, and Pallas (1986) defined academic press as the extent to which teachers (and students) experience a normative emphasis on academic excellence and conformity to specified academic standards.

Academic press is often reflected in teachers' sense of responsibility or accountability for student learning. The concept of academic press received significant attention two decades ago as part of the effective school literature (Edmonds, 1979; Purkey & Smith, 1983), and is receiving more attention again in the closing the achievement gap literature (Barton, 2003; Ferguson, 2007). This concept holds great power in understanding the pressure or sense of urgency that teachers in all four schools described. Teachers' interview responses were striking in their sense of responsibility and accountability. As several teachers expressed,

It's my class, it's my kids, it's personal...we want them to succeed. (91)

They give you so many opportunities to get help...there is no excuse [to not meet student performance goals]. (89)

As noted earlier, the four schools differed in the intensity or level of commitment to each strategy. Some schools had invested more resources in particular strategies than others (e.g., use of data to improve student achievement or PLCs). These reflected differences in the mix of personnel, students, priorities, and resources at each school's disposal. The relative influence of each strategy in contributing to the school's ultimate success was not possible to tease out from the data collected in this study. These schools' success most likely resulted from some combination of the eight.

These eight strategies were not initiated at each school by happenstance; they grew and built on each other by design. In two cases, strong school leadership worked with teachers to initiate and develop a particular strategy (e.g., Data Day, a broad array of interventions to support struggling students). As the value of these strategies grew and became noticed, they were endorsed and advocated district-wide. In other cases, the impetus came from district staff (e.g. PLCs, LFS). District instructional leaders saw the potential for teacher collaboration and professional development and a common language and framework for instruction and invested precious professional development resources in both. Individual schools could not have afforded to make these investments alone. In addition, the power of district-wide involvement raised the priority (and the stakes) for these investments.

This report would be remiss to ignore the challenges that the district and four schools are facing. Indian River's effort began before the tenure of the current superintendent and some principals. Stability in leadership is crucial, even when most vacancies are filled by candidates within the district. Teachers also come and go, and not only do new ones need to be oriented and trained, the skills of veteran teachers' need to be refreshed. Continued investments in professional development to maintain and expand the common language and framework for instruction will be vital to the ongoing culture of success. These investments will be difficult to make as this district faces the budget crunches happening across the entire state.

The adage, familiarity breeds contempt, also must be heeded. When procedures become routine, busy individuals often look for ways to cut corners, skip crucial steps, or reduce effort. For example, consider the quarterly promotion and review meetings. These meetings were originally set up to review student progress, identify students who were not making satisfactory progress, and decide what interventions to take to help those students not succeeding. After several years of these meetings, three times a year, school leaders and/or teachers may go through the motions, but not fully engage in substantive discussions about the students in a particular classroom. This is more likely to occur if almost all the students in a teacher's class are meeting benchmarks on the quarterly assessment. Or take another example, the shared grading of student assessments in PLCs to promote teacher discussions of student work, an invaluable activity in improving teacher practice (DuFour, 2004). If teachers have graded student assessments in the past together and have reached consensus on how to grade them, do they need to continue grading together? In my interviews with teachers, a small minority hinted that some of the eight strategies are becoming routine, as illustrated in the examples above. However, both examples could easily be turned around to provide opportunities for rich discussions on how to challenge students to even higher levels of performance and deepen teachers' thinking about the relationships between their teaching and student learning.

The records of these four schools are very revealing. They have not relied on quick-fix programs and silver bullets. Instead, they have collectively built a culture of success that depends on academic press exerted at all levels (classroom, school, and district) along with eight specific strategies to fuel and reinforce teacher action. This sense of academic press empowers teachers, school leaders, and district leaders; they believe that teachers can be effective instructors of their students and, as a result, take steps to support them in their daily work (e.g., professional development, common planning time, resources to assess student learning, interventions to support struggling students). The district's and schools' records collectively provide valuable guidance and direction for others' improvement efforts.

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Appendix A
Teacher Survey

Indian River School District Survey

This survey is intended to gather your ratings about how this school and district operates. Please answer each item candidly based on your understanding of how things typically occur in Indian River. Your responses will be treated confidentially; they will only be reported in aggregate form. Thank you for your cooperation.

Please complete the following items about your position and experience.

1. Please indicate your school's name.

- East Millsboro Elementary
- Frankford Elementary
- Long Neck Elementary
- Lord Baltimore Elementary

2. Please indicate your role at this school.

- Regular Education Classroom Teacher
- Special Education Teacher
- Resource/Content Specialist
- Paraprofessional
- Administrator
- Other

3. Please indicate how many years you have worked at this particular school.

- 0-1
- 2-3
- 4-5
- 6-10
- 11 or more

4. If you are a teacher, please indicate which grade you teach.

- K
- 1
- 2
- 3
- 4
- 5
- 6
- Other
- Not applicable

5. If you are a teacher, please indicate how many years you have taught at this grade level at this school.

- 0-1
- 2-3
- 4-5
- 6-10
- 11 or more
- Not applicable

6. If you are a teacher, please indicate how many years you have taught in total.

- 0-1
- 2-3
- 4-5
- 6-10
- 11 or more
- Not applicable

7. If you are an administrator, please indicate how many years you have served in this role at this school.

- 0-1
- 2-3
- 4-5
- 6-10
- 11 or more
- Not applicable

8. If you are an administrator, please indicate how many years you have served in this role in total.

0-1 2-3 4-5 6-10 11 or more Not applicable

Please complete the following items about how your district and school typically operate.

9. This district provides instructional resources and support.

Strongly Agree Agree Disagree Strongly Disagree

10. What teachers are doing in the classroom matches administrators' expectations for learning.

Strongly Agree Agree Disagree Strongly Disagree

11. This school has a well-defined plan for instructional improvement.

Strongly Agree Agree Disagree Strongly Disagree

12. The mathematics curriculum materials are aligned with state standards.

Strongly Agree Agree Disagree Strongly Disagree

13. Our school creates an environment that encourages all students to learn.

Strongly Agree Agree Disagree Strongly Disagree

14. Teachers have detailed knowledge of the instructional methods used by other teachers at our school.

Strongly Agree Agree Disagree Strongly Disagree

15. Every student in my classroom has a copy of the mathematics textbook(s).

Strongly Agree Agree Disagree Strongly Disagree

16. The principal visits classrooms each week in our school to monitor instruction.

Strongly Agree Agree Disagree Strongly Disagree

17. This school dedicates time at staff meetings to discuss student achievement.

Strongly Agree Agree Disagree Strongly Disagree

18. The principal ensures that teachers have time for planning in this school.

Strongly Agree Agree Disagree Strongly Disagree

19. Teachers make adjustments in their instruction based on areas where students encounter problems.

Strongly Agree Agree Disagree Strongly Disagree

20. The principal reviews my students' achievement data with me.

Strongly Agree Agree Disagree Strongly Disagree

21. The reading curriculum meets the needs of the majority of my students.

Strongly Agree Agree Disagree Strongly Disagree

22. The district is aware of the challenges our school faces.

Strongly Agree Agree Disagree Strongly Disagree

23. Teachers have received adequate training in the current reading curriculum program.

Strongly Agree Agree Disagree Strongly Disagree

24. Professional development actively engages teachers in improving instruction in their classrooms.

Strongly Agree Agree Disagree Strongly Disagree

25. Teachers and parents work together to improve student learning.

Strongly Agree Agree Disagree Strongly Disagree

26. Teachers use student achievement data to determine what to focus instruction on in their classrooms.

Strongly Agree Agree Disagree Strongly Disagree

27. Our school's vision of high quality instruction is evident in our classrooms every day.

Strongly Agree Agree Disagree Strongly Disagree

28. Mathematics instruction is protected from unnecessary interruptions.

Strongly Agree Agree Disagree Strongly Disagree

29. This district offers helpful professional development activities to support instructional improvement.

Strongly Agree Agree Disagree Strongly Disagree

30. There is a high level of trust among administrators, teachers, and parents in our school that supports working together.

Strongly Agree Agree Disagree Strongly Disagree

31. Reading instruction is integrated with other subjects in this school.

Strongly Agree Agree Disagree Strongly Disagree

32. Our professional development programs match the school's priorities.

Strongly Agree Agree Disagree Strongly Disagree

33. Our school routinely disaggregates student data to assess how well we're doing.

Strongly Agree Agree Disagree Strongly Disagree

34. The district expects all schools to improve student achievement.

Strongly Agree Agree Disagree Strongly Disagree

35. Our school assesses the effectiveness of its plans for instructional improvement.

Strongly Agree Agree Disagree Strongly Disagree

36. The principal suggests instructional strategies to use in my classroom.

Strongly Agree Agree Disagree Strongly Disagree

37. The principal provides support for classroom order and discipline.

Strongly Agree Agree Disagree Strongly Disagree

38. Reading instruction is protected from unnecessary interruptions.

Strongly Agree Agree Disagree Strongly Disagree

39. Each student is expected to achieve to high standards.

Strongly Agree Agree Disagree Strongly Disagree

40. Mathematics instruction is integrated with other subjects in this school.
- Strongly Agree Agree Disagree Strongly Disagree
41. Teachers use the state standards to guide what they teach.
- Strongly Agree Agree Disagree Strongly Disagree
42. The district prioritizes student learning and achievement.
- Strongly Agree Agree Disagree Strongly Disagree
43. The principal communicates a clear vision for this school.
- Strongly Agree Agree Disagree Strongly Disagree
44. Specific intervention plans are in place for students who do not meet expected proficiency levels.
- Strongly Agree Agree Disagree Strongly Disagree
45. The community and school share a common vision for their children.
- Strongly Agree Agree Disagree Strongly Disagree
46. This school has identified essential/key standards for each grade level.
- Strongly Agree Agree Disagree Strongly Disagree
47. The principal encourages teachers to take a leadership role in this school.
- Strongly Agree Agree Disagree Strongly Disagree
48. Teachers use assessment results to inform parents of their child's progress.
- Strongly Agree Agree Disagree Strongly Disagree
49. This district praises and recognizes teachers for their contributions to student learning.
- Strongly Agree Agree Disagree Strongly Disagree
50. The purpose of professional development programs is to improve student learning.
- Strongly Agree Agree Disagree Strongly Disagree

51. The school budget directly supports its priorities.

Strongly Agree Agree Disagree Strongly Disagree

52. The principal arranges for professional development for teachers to improve instruction.

Strongly Agree Agree Disagree Strongly Disagree

53. Teachers have detailed knowledge of the content covered by other teachers at our school.

Strongly Agree Agree Disagree Strongly Disagree

54. Teachers have received adequate training in the current mathematics curriculum program.

Strongly Agree Agree Disagree Strongly Disagree

55. This school has a clear vision that is focused on student learning.

Strongly Agree Agree Disagree Strongly Disagree

56. Every student in my classroom has a copy of the reading textbook(s).

Strongly Agree Agree Disagree Strongly Disagree

57. Teachers are involved in making important decisions at this school.

Strongly Agree Agree Disagree Strongly Disagree

58. The principal is knowledgeable about state standards and curriculum.

Strongly Agree Agree Disagree Strongly Disagree

59. My classroom has the current version of the mathematics textbook(s).

Strongly Agree Agree Disagree Strongly Disagree

60. Our school uses tests aligned with the state standards to monitor students' progress during the school year.

Strongly Agree Agree Disagree Strongly Disagree

61. Teachers receive disaggregated student achievement data by subgroups and skill areas.

Strongly Agree Agree Disagree Strongly Disagree

62. Teachers take responsibility for student achievement.

Strongly Agree Agree Disagree Strongly Disagree

63. My classroom has the current version of the reading textbook(s).

Strongly Agree Agree Disagree Strongly Disagree

64. The principal praises and recognizes teachers for their contributions to student learning.

Strongly Agree Agree Disagree Strongly Disagree

65. The principal ensures that teachers use the adopted curriculum.

Strongly Agree Agree Disagree Strongly Disagree

66. The principal provides teachers with adequate instructional materials.

Strongly Agree Agree Disagree Strongly Disagree

67. The principal communicates clear expectations to teachers for meeting student achievement goals.

Strongly Agree Agree Disagree Strongly Disagree

68. Teachers use assessment data to place students into instructional groups.

Strongly Agree Agree Disagree Strongly Disagree

69. The instructional needs of ELL students are addressed at this school.

Strongly Agree Agree Disagree Strongly Disagree

70. Curriculum and instruction is consistent across grade levels.

Strongly Agree Agree Disagree Strongly Disagree

71. The mathematics curriculum meets the needs of the majority of my students.

Strongly Agree Agree Disagree Strongly Disagree

72. The instructional needs of special education students are addressed at this school.

Strongly Agree Agree Disagree Strongly Disagree

73. Our school helps parents learn how to support their child's development of reading and mathematical skills.

Strongly Agree Agree Disagree Strongly Disagree

74. The reading curriculum materials are aligned with state standards.

Strongly Agree Agree Disagree Strongly Disagree

75. Grade levels meet to plan instruction and review student learning.

Strongly Agree Agree Disagree Strongly Disagree

76. This district encourages teachers to take a leadership role in the district.

Strongly Agree Agree Disagree Strongly Disagree

77. The district provides up-to-date instructional materials.

Strongly Agree Agree Disagree Strongly Disagree

78. This district provides information about state standards and curriculum.

Strongly Agree Agree Disagree Strongly Disagree

79. The principal sets high standards for student learning.

Strongly Agree Agree Disagree Strongly Disagree

80. Research-based instructional strategies are the focus of our professional development.

Strongly Agree Agree Disagree Strongly Disagree

81. Curriculum and instruction is consistent across all classrooms at each grade level.

Strongly Agree Agree Disagree Strongly Disagree

Appendix B
Teacher and Principal Interview Protocols

Beating the Odds Teacher Interview

1. What are your primary responsibilities at this school?
2. Do you set goals for your classroom each year? What are they? Are they public?
3. Does the faculty set goals for the school each year? What are this year's goals?
4. How do you plan instruction? Do you plan alone or with other colleagues?
5. How do you monitor students' learning? Who has access to this information?
6. What opportunities exist to review instruction and student learning? Who participates in these opportunities?
7. What interventions are available for struggling students in your classroom? Do these meet all of your students' needs?
8. Where do you go for assistance if you need help in dealing with a student learning problem? Is this assistance sufficient?
9. What professional development did you participate in last year? How did it tie to the goals or the priorities of this school? How effective were these sessions?
10. How often does the principal visit your classroom? For what purpose?
11. How often does the principal meet with you individually? For what purpose?
12. What is working well in this school? Where are the trouble spots and what is the school/district doing to correct these?
13. What supports do you receive from the central office?
14. What is the relationship between the school and the families it serves?
15. Other comments?

Beating the Odds School Leader Interview

1. What are your primary responsibilities as principal at this school?
2. Do you set goals for the school each year? What are they? Are these goals public?
3. Does the faculty set goals for itself each year? What are this year's goals?
4. How do you monitor students' learning? Who has access to this information?
5. What opportunities exist to review and plan instruction and interventions based on these data?
6. How often are you in classrooms in this school? For what purpose?
7. How often do you meet with teachers? For what purpose?
8. Do teachers work together to plan instruction and review student progress? How often? Do you attend these meetings? Do they share their decisions with you?
9. What interventions does this school have available for struggling students? How were these interventions designed? What is the effectiveness of these interventions? Are they sufficient?
10. What professional development did this school participate in last year? How were these tied to the goals or priorities of this school? How effective were these?
11. Did you attend professional development focused on building your skills last year? What was its purpose? How effective were these?
12. Who is your supervisor? How often do you meet with the supervisor? What do you two discuss when you interact?
13. What is working well in this school? Where are the trouble spots and what are you doing to correct these?
14. What supports do you receive from the central office?
15. What is the relationship between the school and the families it serves?
16. Other comments?

Appendix C
Alignment of Interview Questions with Research-Based Domains

Table 13

Alignment of Interview Questions with Research-Based Domains

Interview Question	Research-Based Domain							
	Prioritizing Achievemen	Coherent Instruction	Using Data	Teacher Collaboratio	Instructional Resources	School Leadership	District Leadership	Parent Involvement
Do you set goals for your classroom each year? What are they? Are they public?	x			x		x	x	
Does the faculty set goals for the school each year? What are this year's goals?	x			x		x	x	
How do you plan instruction? Do you plan alone or with other colleagues?		x	x	x	x	x	x	
How do you monitor students' learning? Who has access to this information?	x	x	x	x		x	x	
What opportunities exist to review instruction and student learning? Who participates in these opportunities?	x	x	x	x		x		
What interventions are available for struggling students in your classroom? Do these meet all of your students' needs?	x		x	x	x	x		
Where do you go for assistance if you need help in dealing with a student learning problem? Is this assistance sufficient?	x			x	x	x		x

Interview Question	Research-Based Domain							
	Prioritizing Achievement	Coherent Instruction	Using Data	Teacher Collaboration	Instructional Resources	School Leadership	District Leadership	Parent Involvement
What professional development did you participate in last year? How did it tie to the goals or the priorities of this school? How effective were these sessions?	x	x		x		x	x	
How often does the principal visit your classroom? For what purpose?	x	x				x		
How often does the principal meet with you individually? For what purpose?	x	x				x		
What is working well in this school? Where are the trouble spots and what is the school/district doing to correct these?	x	x	x	x	x	x	x	x
What supports do you receive from the central office?	x	x		x	x		x	
What is the relationship between the school and the families it serves?								x
Other comments?	x	x	x	x	x	x	x	x