## **Distributed Leadership in Delaware**

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#### **Executive Summary**

In 2004, the Delaware Department of Education asked the Delaware Academy for School Leadership (DASL) to develop and coordinate distributed leadership efforts across the state. The Delaware Education Research and Development Center (DERDC) conducted a two-part study to determine the impacts of this program on participating schools in the state. In the first part, DERDC interviewed a sample of administrators and teachers from 6 of the 15 participating schools. Their responses helped design a survey that was administered in the second part of the study administered to 13 of the 15 schools involved in the DL effort and 3 comparison schools not involved in the effort.

Statistical analysis of the survey responses indicated a significant difference between the DL and non-DL schools ( *t*=4.138, df=840, p<.001). Significant differences were found between the survey responses of current DL team members and non-team members. No differences were found between DL schools related to low, middle, and high participation levels. The interview and survey responses were examined together to gain a better understanding of the above differences between the two samples of schools (i.e., DL versus non-DL).

One theory of research suggests that DL schools redesign the work that they undertake. Our study did not find significant amounts of redesign of specific jobs. What we found instead was that the work undertaken by DL teams, and other members of the schools, more often involved collaboration between teachers and, sometimes, between teachers and administrators. Interview responses suggested that teachers and principals were generally positive about the initiative, feeling that DL provided an opportunity to "open up so many doors," reduce "the isolation" that many felt, and "let…everyone have a voice in the school."

On the survey items, DL respondents gave more positive ratings than non-DL respondents to meeting regularly to work on school improvement goals, working across grade levels and/or departments in their schools, as well as being involved in school activities outside their classroom. Survey responses also favored DL schools over non-DL schools in the trust developed between teachers and administrators. All together, these items reinforce the sense that DL schools are building more inclusive cultures where administrators and teachers are working together to address and resolve school issues.

DL contributed to a more positive school culture and work environment, though it is impossible to tease out the effect of DL on overall school success or student achievement because of the presence of multiple programs in these schools. Meaningful opportunities for teacher-administrator and teacher-teacher collaboration are important in building distributed leadership cultures. The development of trust is essential in building these cultures, and opportunities for the former are probably more important than the latter because of the "we" versus "they" mentality that characterize many administrator-teacher relationships.

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#### Introduction

The Delaware Department of Education and districts and schools began exploring the concept of distributed leadership (DL) several years ago. This exploration was based on the premise that to successfully educate all students, schools need leadership on every level; teams of teachers and administrators must share responsibility for school improvement and student achievement. In DL, responsibilities are shared across some combination of six leadership functions, including providing and selling a vision, providing encouragement and recognition, obtaining resources, adapting standard operating procedures, monitoring the improvement effort, and handling disturbances (Firestone, 1989). The Delaware Academy for School Leadership (DASL) was assigned responsibility by the Delaware Department of Education to develop and coordinate DL efforts across the state.

In October 2004, Delaware's exploration was formally kicked off at a two-day retreat attended by teams from Delaware's 19 school districts. Team membership included the superintendent, a board member, a principal, and a teacher from a middle school or high school, and a parent or community member to the event. At the retreat, teams learned more about the research on teacher leadership and DL from prominent researchers in the field, listened to developers involved in promoting different strategies that help foster DL (i.e., Breaking Ranks II, Learning Focused Schools, High Schools That Work, and Professional Learning Communities), and met with practitioners who were implementing these strategies in their own schools.

After the retreat, districts were invited to submit a proposal for a \$25,000 mini-grant to begin developing their own model of DL. In January 2005, the Delaware Department of Education awarded four \$25,000 mini-grants to the following school districts: Appoquinimink, Christina, Indian River, and New Castle County Vo-Tech districts. Over the past three years, this effort has grown to include eight middle schools and seven high schools in seven of Delaware's 19 school districts.

The focus and activities of these schools have varied depending on the year and length of participation in the program. Recently, participating schools have:

- learned about research and theory about DL theory and research,
- attended training on group dynamics and conflict resolution,
- developed a plan for distributing leadership in their school,
- worked with a coach from DASL to implement their plan,
- completed a survey about effective school practices (Marzano, 2003),
- convened as a large group for training sessions and retreats.

DASL and the participating schools have documented their activities in annual reports and summaries to funding agencies and other interested parties. However, no systematic examination has been conducted of the progress made by the schools in developing models of DL; the impacts of their work on school operations, roles, and responsibilities; or the factors that have contributed to or detracted from their

work. In ongoing conversations with staff at the Delaware Education R&D Center (DERDC), it became increasingly clear that such an examination would be helpful to DASL and the districts in assessing progress and planning future efforts. This document is intended to serve that purpose. It was developed by the DERDC in consultation with DASL staff assigned to the DL effort.

#### **Study Design**

Delaware's DL effort has been enriched by two somewhat different schools of research around this topic (Mayrowetz, Murphy, Louis, & Smylie, 2007; Smylie, Mayrowetz, Murphy, & Louis, 2007; Spillane, 2006; Spillane Diamond, 2007). For this particular study, we focused on understanding the characteristics of redesigned work, transactional mechanisms that influenced how work was redesigned and carried out (i.e., sense making, motivation, and learning), and performance outcomes. We also paid attention to individual and organizational factors that can contribute to or detract from the work.

The study was designed to address several research questions.

- 1. Did DL schools differ from non-DL schools in how principals and teachers carried out their roles and responsibilities?
- 2. What jobs were redesigned in DL schools? How were they redesigned?
- 3. How did the principals and teachers decide which jobs to redesign? How did they make sense of these changes?
- 4. What new skills were required of principals and teachers in redesigning these jobs? What opportunities were provided to help them learn these new skills?
- 5. How did the relationships between principals and teachers change during their involvement in the distributed leadership initiative? How was trust built between principals and teachers?
- 6. What organizational structures and boundaries changed as a result of these redesigned jobs?
- 7. Did these redesigned jobs and relationships contribute to more effective work performance (i.e., student learning)?
- 8. What are the relationships between redesigned jobs and student learning?

The first question was the primary research question: did the DL program make a difference? More simply, did principals and teachers carry out their roles and responsibilities differently in DL versus non-DL schools? We expected to see differences, perhaps not in terms of what schools tackled, but in terms of how they went about their work. The remaining questions thus probed to understand the differences between DL and non-DL schools.

The second question was designed to help us learn what the focus of the distributed leadership work was. Identifying the focus of such work would help us determine whether schools were engaged in changing the core roles and responsibilities related to teaching and learning, or whether they worked on the periphery. The probability that distributed leadership efforts will have any impact on student learning depends greatly on the focus of such work; the more administrators and teachers share

responsibilities on these critical responsibilities, the more likely we are to see improvements in student learning (Spillane and Diamond, 2007).

Mayrowetz, Murphy, Louis, and Smylie (2007) hypothesize that successful job redesign (or distributed leadership) demands "creating a new collective set of beliefs that permit the change to take hold among most members, despite stress" (p. 85). Answering the third question would help us learn more about the process used by administrators and teachers to build a common understanding of what is needed in their school to improve.

Anytime roles and responsibilities are redesigned, some form of training is most likely necessary to help staff members learn how to now accomplish their assignments (Mayrowetz, et al, 2007; Spillane, 2006) Question 4 was intended to help us determine what professional development staff engaged in. We also looked at other more informal opportunities for learning that contribute to their development and growth (Weick, 1991).

When jobs are redesigned, roles and responsibilities and organizational structures and boundaries change (Mayrowetz, et al, 2007). As part of Questions 5 and 6, we gathered information on how these changed over the course of the school's participation in the distributed leadership effort. Particular attention was given to the issue of trust. Numerous researchers have written on the importance of administrators and teachers building trust as they work to distribute leadership (Hallett, 2007; Halverson, 2007; Smylie, Mayrowetz, Murphy, & Louis, 2007).

The last two questions focused our attention on the outcomes of DL work in schools. Ideally, these efforts are undertaken to improve schooling and outcomes for students. Although cursory examinations of existing school data from DL schools do not suggest gains in student performance on Delaware statewide assessments, we looked to find improvements in other indirect ways. More simply, can we document improved performance on early indicators that are linked to subsequent increases in student performance?

#### Methodology

The study is divided into two parts (see Figure 1 below). The first part of the study interviewed a sample of administrators and teachers from six schools involved in the DL effort. Their responses helped design a survey that was administered in the second part of the study. The survey was administered to 13 of the 15 schools involved in the DL effort and 3 comparison schools not involved in the effort. These comparisons helped us determine if DL contributed in important ways to the efforts of such schools to improve schooling and student learning.

Figure 1. Design of Delaware Distributed Leadership Study

Schools	Part 1	Part 2
	Interviews	Surveys
Distributed Leadership		
Middle Schools	3	8
High Schools	3	5
Non-Distributed Leadership		
Middle Schools	n/a	3
High Schools	n/a	0

#### Sample

As reported above, 15 schools are currently participating in DL efforts across the state. In consultation with DASL staff, three high schools and three middle schools were selected for inclusion in the first part of the study. These schools represent a strong mix of schools in terms of geographic, demographic, and staffing variables.

All 15 were invited to participate in the survey. Two high schools declined because of the timing of the survey. In addition, DASL identified an additional three high schools and three middle schools who have not participated in DL efforts to serve as a comparison group. These comparison schools were matched as closely as possible on key geographic, demographic, and staffing factors. In spite of financial incentives, only the middle schools agreed to complete the survey; all three high schools eventually declined because of scheduling issues.

#### Instruments

DERDC developed an interview protocol and a survey for gathering information from the above schools. The interview protocol gathered information from administrators and teachers related to the above eight questions. In particular, they were asked about their involvement in the DL effort in their school, the focus and scope of that work, how the school decided what to work on, professional development provided to help them take on new roles, examples of how their work and relationships have changed, and the impacts of these changes. Particular attention was given to the ongoing interactions of administrators and teachers, changes in the roles and relationships, and tensions that arose and how they were addressed. The interview was reviewed by project staff and no revisions were necessary. A copy of the interview protocol is included in Appendix A.

A Likert-item survey also was developed once the interview responses were reviewed. Survey items addressed all of the interview topics, asking respondents to confirm or agree with statements based on the interview findings. This allowed us to increase the confidence given to the interview findings

regarding the actions of schools participating in DL. The survey items were reviewed by project staff and minor revisions in wording were made. A copy of the survey is also included in Appendix A.

#### **Data Collection Methods**

Schools selected for participation in this study were contacted by DASL staff to discuss this study and obtain their consent to participate. A brief description of the purpose of the study and procedures was shared to solicit their participation. Data collection instruments and procedures were approved by the University of Delaware's Institutional Review Board.

At the six DL schools, a sample of staff were interviewed, including the principal, assistant principals, and 2-3 teachers who have been involved in the DL effort and 2-3 who have not been involved. These interviews were conducted in a quiet location at the school. Notes were taken as the interviews were conducted for subsequent analysis. Interviews were conducted in a single day in each school using one or two interviewers.

Once all the interviews had been conducted, the interviews were coded, identifying key themes for each question. These themes were developed by the two coders together (who also conducted all of the interviews). Interrater reliability (92 percent) was established early on to make sure that the coding was completed in a reliable and efficient manner.

Survey items were developed based on interview response themes. In general, themes that received higher frequencies became survey items. However, in some cases, survey items were written for low frequency themes to deepen our understanding of a particular issue.

The survey was administered to all personnel in the 13 distributed leadership schools as well as the three comparison schools. The survey was administered on-line using Survey Monkey (1999) to facilitate administration and scoring. Surveys were analyzed to determine if there are significant differences between the responses of distributed leadership schools versus non-distributed leadership schools.

#### **Analyses of Interviews and Surveys**

The analyses are reported for each of the research questions listed above, both to promote clarity and a stronger organizational structure for understanding the analyses and results.

## Question 1: Did DL schools differ from non-DL schools in how principals and teachers carried out their roles and responsibilities?

A total score on the survey was computed for each respondent. This total score was the sum of an individual's responses to each of the items. Items that were worded negatively were reversed so that the directionality of all of the items was the same. The higher the score, the more the individual agreed

with the statements. Individuals who did not complete 55 of the 66 items were excluded from the analyses. This resulted in dropping 53 participants from the study, bringing the total from 895 to 842. Using these participants, comparisons were made between DL and non-DL schools. To look for further differences, we also looked at the varying level of participation of schools in DL to see if there was any difference between these sub-groups.

#### t-test Comparisons

The survey total scores were compared for DL and non-DL respondents, using an independent sample t-test. As seen in Table 1, results were statistically significant (t=4.138, df=840, p<.001) with those in the DL group scoring significantly higher than those in the non-DL group. We also conducted independent t-tests to determine if there was a significant difference at the middle school level between DL and non-DL schools. Results were statistically significant (t=6.447, df=498, p<.001); staff members in DL middle school scored higher on the survey than non-DL middle school respondents (see Table 1).

Table 1 t-test values

	DL Schools		Non-DL Schools		<i>t</i> -test	df	p-value
Comparison	Mean	SD	Mean	SD			
Total Scores: DL vs. Non-DL Schools	171.43	25.29	161.08	25.39	4.138	840	p<.001
Total Scores: DL vs. Non-DL Middle Schools	177.90	24.67	161.08	25.39	6.447	498	p<.001
Collaboration Scores: DL vs. Non-DL	163.97	25.08	153.61	25.31	4.170	840	p<.001

#### **Factor Analysis**

To better understand the survey responses, we conducted a factor analysis. The first factor accounted for the largest percent of the variance (38.43 percent) and the majority of items loaded on the first factor. A total score was calculated for these items. As before, the directionality of negative items was reversed and any participant with a score of 55 or less was eliminated from the analysis. Results were statistically significant (t=4.170, df=840, p<.001). Once again, those in the DL group scored higher than those in the non-DL group on the survey.

<sup>&</sup>lt;sup>1</sup> No comparisons could be made at the high school level because no non-DL high schools completed the survey.

#### **Participation Level**

An additional analysis was performed for DL schools to determine whether there were significant differences based on levels of school participation. To determine these levels, DL coaches were asked to rate the participation of schools on seven criteria as high, medium, or low. These seven criteria were: (a) participated in state training, (b) conducted a summer retreat for team or entire school, (c) acted consistently or strategically, (d) distributed leadership, (e) improved student learning, (f) were data driven, and (g) institutionalized distributed leadership components/operations (i.e., ownership).

Schools were separated into three groups based on DL coaches' ratings: high, medium, and low participation. To compare these three groups, a one-way Analysis of Variance (ANOVA) was performed. As shown in Table 2 below, the overall ANOVA showed no significant difference between groups (F = .288, df=2, 836, p=.750). In other words, schools that were rated as participating more highly in DL did not score higher than schools that did not.

Table 2
Comparison of Survey Totals by Participation Level

Comparison	Low Participation		Medium Participation		High Participation		F-value	df	p-value
	Mean	SD	Mean	SD	Mean	SD			
Participation Levels: ANOVA comparison	168.71	26.40	170.12	25.78	170.57	25.00	.288	2, 836	.750

Question 2: What jobs were redesigned in DL schools? How were they redesigned? Question 3: How did the principals and teachers decide which jobs to redesign? How did they make sense of these changes?

In all but one school included in the interview sample, the principal was the primary decision maker for the school to join the DL effort. In the one exception, an administrator who was a new member of the principal's cabinet suggested joining. Teachers were sometimes consulted, but did not always have a say in making the decision.

Deciding what to work on was usually a more inclusive process. In three schools, the DL team quickly became the de facto school improvement team and the focus of the team's work was driven by their respective school improvement plans. Two schools indicated that a DL-supported "survey guided what [they] did" and how they focused their efforts. In the remaining school, the principal identified broad

areas for teachers and then these groups developed more specific foci. In all six cases, the focus of the work did not remain on DL. As many teachers and administrators noted in their survey responses, ""Distributed leadership has facilitated other improvement initiatives in the school" (M=2.8. SD=0.64). In almost all cases, DL team members described the focus of their activities as closely aligned with teaching and learning, the core work of schools. Table 3 below summarizes the focus of the teams' efforts.

Table 3
Focus of DL Teams' Work

Initiatives Undertaken with DL	Number	Percent
PLCs	5	83.3
LFS	4	67.7
PLCs School Improvement/Leadership Team	3	50.0
Other (e.g. PBS, ninth grade orientation)	2	33.3

#### **Collaboration**

A key component in the redesign of specific jobs, or the work that was undertaken as part of DL revolves around collaboration, both between individual teachers as well as between teachers and administrators working together. We quickly discovered in the interviews that most of the work undertaken did not involve the redesign of specific jobs, except in one important dimension. They did not change what they did, but the work undertaken by DL teams and other members of the schools more often involved increased collaboration, between teachers and sometimes between teachers and administrators.

We first calculated the number of incidences of the first versus the second during interviews of teachers and administrators in six of the schools. As indicated in Table 4 below, many more instances of the teacher collaboration were cited than instances of the teacher-principal collaboration.

Table 4
Numbers and Percentages of Collaborative Incidences

Collaborative Incidences	Number	Percent
Teacher-Teacher	90	62.1
Teachers-Administrator(s)	55	37.9
Total	145	100.0

**Teacher Collaborations.** Collaboration between teachers occurred most naturally as part of their PLC or LFS efforts. As noted above, the majority of the DL schools were involved in such efforts. The focus of these collaborations varied, but most were tied to teaching and learning, e.g., the development of lesson plans or units or the development and grading of common assessments. As one

teacher commented, "it has made me a better teacher because I'm more cognizant of what goes on in other classrooms." Teachers were frequently organized into grade level groups to discuss "what we're doing, instruction, and developing common assessments". In a few cases, high school groups were cross-discipline, allowing teachers to consult and plan together who shared instructional responsibilities for the same group of students.

Other teacher collaboration occurred as part of committee work, most frequently tied to the school's improvement plan or ongoing improvement efforts. The focus of these groups was much more diverse. Often, teachers "were asked what are the problems, and everything...stemmed from that." For example, "one of the concerns [one school] had were the number of discipline referrals given to freshman, so one of [their] first initiatives was to set up a freshman orientation day to better acquaint the freshman with the high school and their expectations." Another group designed and implemented a process to provide professional assistance and support to other teachers, without any assistance or involvement from administrators in the building. Others planned student recognition events, provided input on the school's master schedule, and even rearranged faculty and student parking lots to address ongoing student discipline and management problems.

Participant responses to survey items related to teacher collaboration showed some differences between DL and non-DL schools (see Table 5 below). DL school respondents indicated that these collaborations were more often across grade level or department, more often focused on improving student learning, and beneficial to participants. On the other hand, respondents from non-DL schools rated administrators' allocation of time for teachers to collaborate and teacher discussion of challenges higher. Overall, these differences do not point to strong differences between the two samples of schools in terms of teacher collaboration.

Table 5
Teacher Collaboration Survey Responses

Teacher Collaboration	DL Sch	DL Schools		Schools
	Mean	SD	Mean	SD
61. I've learned a lot from working with other teachers in this school.	3.23	0.63	3.10	0.65
65. Teachers work across grade levels and/or departments in this	2.86	0.70	2.69	0.72
school.				
20. Administrators make time for teachers to work together in this	2.81	0.73	2.92	0.63
school.				
18. Teachers have time in this school to discuss with each other the	2.73	0.83	2.82	0.77
challenges facing them in their classrooms.				
23. Teacher committees in this school do not focus on improving	1.88	0.65	2.04	0.63
student learning.				

Note: Ratings can range from a high of 4.00 (Strongly Agree) to a low of 1.00 (Strongly Disagree).

**Teacher-Administrator Collaborations.** As indicated in Table 4 above, teacher-administrator collaborations occurred less often. When they happened, they tended to be of two types. First, administrators attended professional learning community meetings, to listen in on teacher discussion and to keep track of what teachers were doing. These tended to be collaborations in name only, since administrators were reluctant to be active participants in the discussion. As one principal reported, "We don't coordinate, or go for the entire meetings…we stop by, so it feels like it's the teachers' groups."

Second, administrators and teachers worked together on committees, often the school's improvement committee or related efforts. In the latter case, they worked together as equals—planning next steps, sharing and reacting to ideas, and making decisions. This was a major shift for many teachers and principals who were used to working from the perspective of a "we-they" dichotomy. Over time, both sides have learned to "listen to each other" to tackle the big problems.

The following items address issues related to teacher-administrator collaboration. All of the item mean comparisons favored the DL schools over the non-DL schools (see Table 6 below). DL schools received more positive ratings than non-DL schools in terms of how administrators and teachers work together in a multitude of areas, including instruction. Teacher input was counted on, teachers acknowledged learning from administrators, and the likelihood of student and school success improved because of their joint work together, all indicators of schools that have adopted distributed leadership practices successfully.

Table 6
Teacher-Administrator Collaboration Responses

Teacher- Administrator Collaboration	DL Sch	DL Schools		Schools
	Mean	SD	Mean	SD
5. Teachers and administrators talk regularly on an informal and	3.07	0.75	2.68	0.83
formal basis.				
9. Administrators trust teachers to carry out important non-	3.06	0.65	2.74	0.73
teaching duties in this school.				
39. Administrators in this school are committed to working with	3.04	0.66	2.79	0.87
teachers to improve instruction.				
16. Collaboration between administrators and teachers has	2.98	0.66	2.71	0.73
positively affected students.				
17. Administrators in this school count on teachers to play an	2.89	0.73	2.57	0.81
active role in making decisions to improve the school.				
47. Our school administrators and teachers work together	2.89	0.66	2.63	0.75
collaboratively to improve student learning.				
8. Teachers are willing to try out new ideas without fear of	2.88	0.67	2.37	0.74
reprisals from administrators.				

37. Administrators in this school welcome teacher input.	2.88	0.69	2.52	0.88
13. Our school is better positioned to make improvements because	2.87	0.75	2.50	0.86
administrators and teachers are working together.				
24. Teacher input is valued by school administrators.	2.84	0.74	2.45	0.86
60. Teachers and administrators work together to identify and	2.82	0.64	2.50	0.83
make changes in school and classroom conditions to improve				
teaching and learning.				
21. I've learned a lot from working with administrators in this	2.77	0.76	2.48	0.84
school.				
22. Teachers and administrators together have decided specific	2.77	0.74	2.55	0.77
priorities this school should pursue.				
45. Teachers and administrators share leadership responsibilities in	2.77	0.64	2.52	0.72
this school.				
6. Teachers and administrators have decided collectively how we	2.71	0.79	2.40	0.86
are going to do things around the school.				
36. Administrators in this school promote shared leadership with	2.70	0.80	2.91	0.81
teachers, but are really controlling the entire process from the				
sidelines.				
52. Teachers and administrators in this school have a good	2.65	0.75	2.46	0.78
understanding of what each other does.				
58. Teachers and administrators trust each other in this school.	2.56	0.76	2.07	0.86
66. Our administrators prefer a stimulating discussion among	2.56	0.78	2.33	0.94
faculty about what should be done rather than making a decision				
by themselves.				
54. Teachers are marginalized when it comes to making important	2.51	0.71	2.69	0.72
decisions in this school.				
10. Teachers don't bother to complain in this school because no	2.21	0.77	2.53	0.93
one listens to them.				
				•

What is important to underscore here are two observations. First, DL did not remain the focus of the team's work for very long. Instead, DL helped change the culture of the school in terms of how teachers worked with each other and, sometimes, with administrators. Second, many teachers felt empowered to move their attention to issues outside their classroom walls, to work with other teachers and/or administrators to address issues of importance to them. They sometimes worked together on issues traditionally the purview of teachers, i.e., curriculum, instruction, and assessment, but they also collaborated on issues to improve the culture and well-being of their school for students and teachers alike.

## Question 4: What new skills were required of principals and teachers in redesigning these jobs? What opportunities were provided to help them learn these new skills?

The interviews and surveys both gathered information about professional development offered to help build new skills. During the interviews, DL schools reported that they had numerous formal professional development opportunities, including those that focused on how to work as a team (e.g., goal setting, facilitation, conflict resolution), those that were tied to substantive work (e.g., professional learning communities, learner-focused strategies, and effective classroom practices), and sharing across teams. Formal DL-sponsored professional development most often relied on a training-of-trainers format where some or all team members would attend, and then return to their home school to train others. Interview comments were generally positive about these professional development opportunities, though individual respondents questioned the usefulness of some sessions to particular teams.

Interview respondents also reported informal professional development opportunities. These frequently occurred as DL- or district-sponsored "coaches" or "facilitators" worked with individual school teams during later years of the project. These coaches or facilitators helped teams, including principals, work through interpersonal, organizational, and substantive issues, tailoring their assistance to respond to the particular needs of the coaches. One principal noted that his coach has been "a wealth of knowledge for me personally."

The survey questioned DL and non-DL respondents about professional development opportunities and whether they had learned from teachers and administrators in their respective schools.

Table 7
Ratings of DL-Sponsored Professional Development

Professional Development Items	DL Schools		Non-DL Schools	
	Mean	SD	Mean	SD
61. I've learned a lot from working with other teachers in this	3.23	0.63	3.10	0.65
school.				
48. Professional development is provided to help meet our school's	2.88	0.70	2.85	0.62
priorities.				
21. I've learned a lot from working with administrators in this	2.77	0.74	2.48	0.84
school.				
83. Our Distributive Leadership team has benefitted from	2.77	0.66	n/a	n/a
professional development opportunities.				
19. Professional development has helped us figure out how to work	2.49	0.77	2.49	0.71
with each other.				

Note: Ratings can range from a high of 4.00 (Strongly Agree) to a low of 1.00 (Strongly Disagree).

In general, both samples of schools reported having been provided with professional development to help meet their schools' priorities and to work together productively. Differences were found only in terms of learning, both from teachers as well as administrators. DL schools reported more positive ratings than non-DL schools on both of these items. This is an important finding, in that distributive leadership has likely contributed to a culture of learning between and among teachers and administrators.

## Question 5: How did teacher and principal relationships change during their involvement in the distributed leadership initiative? How was trust built between principals and teachers?

The interview and survey items looked at how teachers and administrators reacted to more distributed leadership situations. In the former, we asked interviewees how they had responded to changes in their schools related to DL. Teachers were generally positive, noting that DL provided an opportunity to "open up so many doors," reduce "the isolation" that many felt, and "let…everyone have a voice in the school." Only one teacher reacted negatively to the DL initiative; she saw it as a heavy-handed effort to assign administrator responsibilities to teachers with no compensation or recognition.

As part of the survey, we asked respondents about changes in teacher and administrator roles, teachers' willingness to assume more leadership responsibilities and administrators' willingness to give up such responsibilities, and trust between teachers and administrators, or the lack of it. The responses from teachers' perspectives are presented below.

Table 8
Survey Respondents' Ratings of Teacher Behaviors

Teacher Behaviors	DL Sc	DL Schools		Schools
	Mean	SD	Mean	SD
43. Teachers are more motivated to do a good job when they	3.01	0.61	2.85	0.59
assume leadership responsibilities in a school.				
35. I understand why teachers are asked to take on new or	2.94	0.61	2.82	0.60
additional responsibilities.				
31. Teachers are willing to try out new ideas without fear of	2.88	0.67	2.48	0.72
reprisals from administrators.				
26. Teachers are comfortable in expressing their opinions to	2.78	0.73	2.32	0.93
administrators in this school.				
7. Teachers do not fear administrator retribution in this school.	2.77	0.82	2.39	0.97
46. Teachers in this school have stepped up and taken on	2.46	0.72	2.61	0.73
leadership responsibilities, but have received little recognition				
or reward.				

32. Teachers should focus all of their time and resources on	2.44	0.68	2.46	0.61
classroom instruction.				
57. Teachers are uncomfortable taking on leadership roles in	2.21	0.61	2.42	0.69
this school.				
34. I am asked to take on responsibilities without	2.09	0.66	2.32	0.71
understanding why I should do them.				
8. Teachers do not volunteer to serve on committees in this	2.08	0.72	2.37	0.74
school.				

As expected, the ratings are more positive for DL schools than non-DL schools. Teachers in DL schools reported more willingness to take on and comfort with leadership roles, express their ideas and opinions, and trust that retribution would not occur when negative ideas were expressed or tried out. These ratings suggest that DL schools are able to build more positive cultures of inclusiveness and teacher leadership and responsibility than non-DL schools.

We also looked at how administrators react to distributed leadership situations. Distributed leadership means giving up some of their control and for many principals, this is a challenge for them to relinquish. As one principal noted during the interview,

It's enhanced what my vision of the school was, and my leadership has changed. The very first meeting I went to, I heard what the teachers get to do, and it was like, wait...this is my school, I finally get a chance, to be a principal, and you want me to give it to the teachers. I'm not sure why I came back for the second meeting, but I did. The second meeting, I wish I could remember what it was, but they made it clear that it wasn't about giving up power, it was about sharing responsibility.

Another principal commented that she had to learn how to think differently about decisions, to be more "flexible in making decisions," to "considering the needs of both sides," and to adopt "more of a shared approach than a top down approach." She went on to note, "I have learned that even the things I thought they really had no need to know, are very important to them."

The principals responded to the same set of items as teachers. The following table summarizes principals' reactions to distributed leadership. With one exception, all of the ratings favored the DL schools over the non-DL schools. Administrators engaged teachers in leadership roles, changed how they worked with teachers, and counted on them to get things done. They used these opportunities to groom future administrative talent. The one exception was no difference in terms of personal support between the two samples of schools.

Table 9
Survey Ratings of Administrator Behaviors

Administrator-Related DL Behaviors	DL Sch	nools	Non-DL Schools	
	Mean	SD	Mean	SD
9. Administrators trust teachers to carry out important non-teaching	3.06	0.65	2.74	0.73
duties in this school.				
29. Administrators have asked teachers to take on leadership roles in	3.00	0.57	2.79	0.62
this school.				
14. Administrators give teachers leadership responsibilities to gain	2.91	0.68	2.64	0.76
support for their own ideas and initiatives.				
41. Our administrators have changed how they work with teachers in	2.80	0.68	2.73	0.81
this school over the past few years.				
53. Administrators give teachers leadership responsibilities in order	2.51	0.71	2.35	0.74
to groom future administrative talent.				
33. Administrators count on teachers for personal support in this	2.44	0.68	2.46	0.61
school.				
11. Administrators do not rely on teachers for support in this school.	1.91	0.64	2.18	0.80
50. Administrators do not count on teachers to get things done in	1.90	0.54	2.05	0.63
this school.				
15. The authority of administrators is threatened when teachers	1.89	0.67	2.08	0.75
assume leadership roles in the school.				

Trust between teachers and administrators was a critical outcome of the DL effort for several interviewees. This sense of trust was essential in building schools with distributed leadership; administrators and teachers have to trust each other, both in intention and deed. One teacher observed that "the confidence, the trust is there, not that he [the principal] treats us differently. Everyone is more comfortable about speaking up, offering suggestions." Principals, on the other hand, noted that teachers "recognize us as the administration, but they treat us with more trust. There is more trust." The survey responses favored DL schools over non-DL schools in the trust between teachers and administrators. Administrators learned to let go of some authority and *trust* teachers to responsibly carry out certain responsibilities, and teachers need to *trust* principals to not retaliate if things go awry.

# Question 6: What organization structures and boundaries changed as a result of these redesigned jobs?

Survey respondents were asked about how administrators and teachers carry out responsibilities in their mutual schools. They were asked about meetings to work on school improvement, administrators' requests for teachers to take on leadership roles, and how teachers responded to these requests.

Table 10
Survey Ratings of School Operations and Procedures

29. Administrators have asked teachers to take on leadership roles in this school.  63. We have regularly scheduled meetings where we work on our school improvement goals.  53. I understand why teachers are asked to take on new or additional responsibilities.  65. Teachers work across grade levels and/or departments in this school.  53. Administrators give teachers leadership responsibilities in or school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only students in swasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  59. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.08  0.72  2.37  0.74  2.79  0.60  2.89  0.60  2.89  0.60  2.89  0.60  2.89  0.60  2.89  0.60  2.95  0.61  2.82  0.60  2.80  0.70  2.69  0.72  2.61  0.71  2.69  0.72  2.62  0.71  2.69  0.72  2.63  0.71  2.69  0.72  2.64  0.72  2.61  0.73  2.79  0.71  2.69  0.72  2.70  0.71  2.69  0.72  2.71  0.72  2.61  0.73  2.72  0.73  0.74  2.73  0.74  0.75  2.74  0.75  2.75  0.76  0.76  0.77  2.75  0.77  0.78  2.77  0.78	School Operations and Procedures	DL Sch	iools	Non-DL Schools		
roles in this school.  63. We have regularly scheduled meetings where we work on our school improvement goals.  35. I understand why teachers are asked to take on new or additional responsibilities.  65. Teachers work across grade levels and/or departments in this school.  53. Administrators give teachers leadership responsibilities in order to groom future administrative talent.  54. Teachers are marginalized when it comes to making important decisions in this school.  46. Teachers in this school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities without understanding with lamp asked to take on responsibilities without understanding and the concentrate on students.  8. Teachers do not volunteer to serve on committees in this concentrate on other should do them.  8. Teachers do not volunteer to serve on committees in this concentrate on take on responsibilities without understanding and the concentrate on the concentrate on serve on committees in this concentrate on school volunteer to serve on committees in this concentrate on the concentrate on school serve on committees in this concentrate on school volunteer to serve on committees in this concentrate on concentrate on school volunteer to serve on committees in this concentrate on concentrate on concentrate on concentrate on committees in this concentrate on concentrat		Mean	SD	Mean	SD	
63. We have regularly scheduled meetings where we work on our school improvement goals.  35. I understand why teachers are asked to take on new or additional responsibilities.  65. Teachers work across grade levels and/or departments in this school.  53. Administrators give teachers leadership responsibilities in order to groom future administrative talent.  54. Teachers are marginalized when it comes to making important decisions in this school.  46. Teachers in this school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities without understanding with limits school.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	29. Administrators have asked teachers to take on leadership	3.00	0.57	2.79	0.62	
our school improvement goals.  35. I understand why teachers are asked to take on new or additional responsibilities.  65. Teachers work across grade levels and/or departments in this school.  53. Administrators give teachers leadership responsibilities in order to groom future administrative talent.  54. Teachers are marginalized when it comes to making important decisions in this school.  46. Teachers in this school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities without understanding with in this school.  8. Teachers do not volunteer to serve on committees in this  2.08 0.72 2.37 0.74	roles in this school.					
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additional responsibilities.  65. Teachers work across grade levels and/or departments in this school.  53. Administrators give teachers leadership responsibilities in order to groom future administrative talent.  54. Teachers are marginalized when it comes to making important decisions in this school.  46. Teachers in this school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities without understanding with in this school.  8. Teachers do not volunteer to serve on committees in this contact in this contact in this school of the contact in their classrooms.  9. Teachers do not volunteer to serve on committees in this contact in this contact in the contact in th	our school improvement goals.					
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this school.  53. Administrators give teachers leadership responsibilities in order to groom future administrative talent.  54. Teachers are marginalized when it comes to making important decisions in this school.  46. Teachers in this school have stepped up and taken on leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	additional responsibilities.					
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leadership responsibilities, but have received little recognition or reward.  28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	important decisions in this school.					
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28. Teachers have been given leadership responsibilities to lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.45  0.68  2.44  0.70  2.48  0.79  2.48  0.70  7.70  7.70  7.70  7.70  7.71  8. Teachers do not volunteer to serve on committees in this  2.08  0.79  2.48  0.79  2.48  0.79  2.48  0.70  7.70  7.70  7.71  7.72  7.71	leadership responsibilities, but have received little recognition					
lessen administrators' loads.  62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.36  0.79  2.48  0.85  0.70  2.38  0.70  n/a  n/a  0.72  2.31  0.79  0.79  0.79  0.71	or reward.					
62. It is okay for teachers to close their doors and only concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  2.31 0.70 n/a n/a Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	28. Teachers have been given leadership responsibilities to	2.45	0.68	2.44	0.70	
concentrate on students in their classrooms.  49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.34  0.66  2.38  0.70  n/a  n/a  0.72  2.31  0.79  0.79  0.66  2.32  0.71	lessen administrators' loads.					
49. Teacher time in school not directly focused on their students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.34  0.66  2.38  0.70  n/a  n/a  0.72  2.31  0.79  2.31  0.79  2.31  0.79  2.31  0.79  2.31  0.79	62. It is okay for teachers to close their doors and only	2.36	0.79	2.48	0.85	
students is wasted.  68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.31 0.70 n/a n/a  2.31 0.70 n/a  0.72 2.31 0.79  0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79  2.31 0.79	concentrate on students in their classrooms.					
68. All of the influential voices in our school serve on the Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  2.31  0.70  n/a  n/a  0.79  2.31  0.79  2.31  0.79  2.31  0.79  2.31  0.79  2.32  0.71  2.32  0.71	49. Teacher time in school not directly focused on their	2.34	0.66	2.38	0.70	
Distributed Leadership team.  25. I am asked to take on responsibilities that I do not agree with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.08  0.72  2.31  0.79  0.66  2.32  0.71  0.74	students is wasted.					
25. I am asked to take on responsibilities that I do not agree  with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.08  0.72  2.31  0.79  0.79  2.31  0.79  0.71	68. All of the influential voices in our school serve on the	2.31	0.70	n/a	n/a	
with in this school.  34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	Distributed Leadership team.					
34. I am asked to take on responsibilities without understanding why I should do them.  8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	25. I am asked to take on responsibilities that I do not agree	2.13	0.72	2.31	0.79	
why I should do them.  8. Teachers do not volunteer to serve on committees in this  2.08  0.72  2.37  0.74	with in this school.					
8. Teachers do not volunteer to serve on committees in this 2.08 0.72 2.37 0.74	34. I am asked to take on responsibilities without understanding	2.09	0.66	2.32	0.71	
	why I should do them.					
	8. Teachers do not volunteer to serve on committees in this	2.08	0.72	2.37	0.74	
school.	school.					

All of the item means favored the DL schools versus the non-DL schools with two exceptions. DL respondents gave more positive ratings than non-DL respondents to meeting regularly to work on school improvement goals, working across grade levels and/or departments in their schools, and involvement in school activities outside their classroom. In addition, administrators in DL schools were

rated more positively than their non-DL counterparts in asking teachers to take on leadership roles, and DL teachers were more knowledgeable and willing to take these roles on than their non-DL counterparts. Teachers in DL schools felt less marginalized than non-DL teachers when important decisions were made in their schools. The two exceptions showed minimal differences between DL and non-DL respondents in terms of teachers being given leadership roles to lessen administrators' workload and the use of teacher time not directly focused on students. All together, these items reinforce the sense that DL schools are building more inclusive cultures where administrators and teachers are working together to address and resolve school issues.

#### **DL-Only Items**

We also asked DL respondents more detailed survey questions about organizational structures and procedures in their schools; these items were not asked of non-DL survey respondents because the questions would have no meaning or relevance (e.g., Our DL team is representative of the different grade levels, departments, and other groups in this school). The 27 items asked about the selection and involvement of faculty in the DL team, the purpose and focus of the team's work, interactions between the DL team and remainder of the school, and the team's success.

To analyze these responses, we divided respondents into three groups—currently a member of the DL team; previously a member, but not now currently; and never a member of the DL team. Similar to the analyses above, we calculated a total survey score and respondents were dropped if they scored less than 25 for the 27 items.

A one-way Analysis of Variance (ANOVA) was conducted to determine if any differences existed between the three groups (see Table 11 below). The overall ANOVA showed a statistically significant difference between groups (F = 40.76, df =2, 659, p<.001). Post hoc analysis showed that those currently in the DL group scored significantly higher than both those previously in the group (p<.001) and those never in the group (p<.001). There was no significant difference found between those previously in the DL group and those never in the DL group (p=.997).

Table 11
Comparisons of Survey Total Scores by DL Membership

Comparison	Current (n=184)		Previous (n=58)		Never (n=420)		F-value	df	p-value
	Mean	SD	Mean	SD	Mean	SD			
DL Teams:									
ANOVA	76.48	11.23	67.00	12.08	66.88	12.68	40.76	2, 659	p<.001
comparison									

Overall, these analyses showed that individuals who were part of the DL team(s) had a different perspective of their school than did those who had never or were not currently participating on the team. They differed in terms of their ratings of the representativeness of the team, teacheradministrator relations, teacher voice, and accomplishments, with almost all ratings highest for current team members. This is not surprising in that we would expect current members to be more positive about DL than those who no longer served or had never served. Appendix B includes the item means for each group.

Question 7: Did these redesigned jobs and relationships contribute to more effective work performance (i.e., student learning)?

Question 8: What are the relationships between redesigned jobs and student learning?

The findings for these two questions will be combined as they both address the outcomes and impacts related to the DL effort. The last set of survey items concern indicators of success, some that are relevant to schools involved in DL efforts, and some that are relevant to schools' success, whether they are involved in DL or not. Of the 12 items, five focused on indicators correlated with DL success and seven with overall success.

Table 13
Ratings of School Success

School Success Items	DL Scl	nools	Non-DL Schools	
	Mean	SD	Mean	SD
12. Teachers have made changes in their classroom to improve	3.36	0.57	3.39	0.57
student success.				
51. Teacher can influence what happens in this school.	3.26	0.70	3.05	0.81
38. Our school is focused on its school improvement goals.	3.15	0.60	3.13	0.65
64. Teachers are actively engaged in improving teaching in this	3.15	0.58	3.07	0.55
school.				
40. Teachers play an active role in this school beyond their	3.14	0.67	3.00	0.65
classroom teaching responsibilities.				
55. I have pride in what our school has accomplished over the	3.08	0.70	2.81	0.80
past few years.				
56. Teachers in our school are actively engaged in improving the	2.90	0.65	2.82	0.71
school operations.				
27. Student achievement is improving in this school as a result	2.83	0.69	2.59	0.83
of administrators and teachers working together.				
31. Our school administrators and teachers have learned how to		0.68	2.48	0.72
work together to improve student learning.				

44. The changes that we have made in this school are not "add-	2.72	0.71	2.69	0.66
ons," but truly impact student learning.				
42. Our school faculty is fairly stable and has little turnover	2.66	0.80	2.23	0.83
except for retirements.				
59. Teachers feel empowered in this school.	2.48	0.69	2.12	0.83

Not surprisingly, DL schools were rated more positively than non-DL schools on all five of the DL success indicators. In particular, DL schools were rated more positively in terms of teacher influence and empowerment, teachers playing an active role in the school beyond teaching responsibilities, administrators and teachers learning to work together, and the improvement in student achievement as a result of their working together.

DL schools were rated more positively than non-DL schools on four of the seven school success items. Teachers were more engaged in teaching and school operations, and there was more pride in the school's accomplishments and less staff turnover in DL schools than non-DL schools. There were no differences in terms of the school's focus on school improvement goals, changes made by teachers in their classrooms to improve student learning, and that the changes made were not simply "add-ons."

Overall, these responses reinforce the positive impact that the DL program is having on schools. DL schools did better on DL success indicators and on a majority of the overall school success indicators.

#### **Conclusions and Implications**

This study was undertaken to systematically examine the impacts of Delaware's DL initiative. Unlike many other improvement initiatives, participating schools quickly intertwined their DL program with other reform efforts in their schools. These included ongoing work by school leadership teams, development of PLCs in grade level and department configurations, and implementation of LFS. This was always part of the master plan for DL; Delaware districts were introduced to DL along with four other improvement initiatives (i.e., Breaking Ranks II, High Schools that Work, LFS, and PLCs). Although embedding DL in these efforts increased the likelihood of its staying power and success, it also complicated our study of DL's impacts. More simply, it became more difficult to isolate and attribute positive outcomes to DL versus other improvement efforts.

As part of the study, we conducted interviews of administrators and teachers in six DL schools and surveyed all administrators and teachers in 13 DL schools and 3 non-DL schools. We quickly learned in the interviews that most of the work undertaken as part of DL did not involve the redesign of specific jobs, except in terms of how they carried out their assignments—their work became more collaborative. Analyses of the survey responses confirmed that collaboration was more prevalent in DL schools versus non-DL schools. DL schools generally demystified teachers' practice. Teachers had more knowledge about what their colleagues were doing in their respective classrooms; this knowledge was gained

through classroom visits and observations as well as discussions during PLCs. In addition, survey responses suggested that administrators and teachers worked together more effectively. They learned to open up and speak frankly to each, and to rely and trust each other.

Professional development was needed for these changes to occur. The professional development included team building, which was very helpful in building productive relationships. Professional development also focused on substantive issues, either as faculty and administrators learned about professional learning communities, learner focused strategies, or other programs. Opportunities for DL team members to share their experiences also were valuable in offering new ideas as well as confirming approaches already underway.

In almost all cases, administrators and teachers reacted positively to DL. Although a few administrators expressed initial reservations about relinquishing authority, all quickly adapted and supported the changes that accompanied DL. One noted that "the more people [involved in] making decisions, the better the decision." Almost all teachers also saw the benefits, in terms of reducing their isolation in the classroom and increasing the opportunities for them to play a meaningful role in making important decisions in their schools.

Given the overlap across programs, it is impossible to determine exactly what impact DL had on the overall success of participating schools or the performance of students in those schools. DL survey respondents were more positive than non-DL survey respondents on the engagement of teachers in instruction and school operations; they reported more pride in their schools' accomplishments. However, there were no differences between the two samples of schools in terms of their focus on school improvement goals or changes made by teachers to improve learning.

Nevertheless what came through most clearly was the positive change in culture, particularly in the relationships among teachers and between teachers and administrators. Teachers in DL schools felt more aware, more empowered, and more listened to, both in terms of their traditional turfs (i.e., classroom curriculum, instruction, and assessment) as well as in other less traditional areas (i.e., ninth grade orientation, student parking lot, professional support for other teachers). The "we" versus "they" mentality did not disappear in these schools, but it did diminish. If the changes had included only teachers or their traditional turfs, we would have been more likely to attribute the changes to the formation of PLCs or the implementation of LFS. Because the changes went further, and involved administrators, it seems more likely that DL contributed to these changes. Teachers and administrators changed how they interacted with each other.

This finding has significant implications for how DL efforts move forward. First, it is clearly important to anchor DL with other improvement efforts in a school. Teams require some initial support and assistance to learn how to work well together, but very quickly need to refocus on substantive improvement efforts. Their work cannot be limited to figuring out how to share or reallocate leadership. Ongoing facilitation may be helpful to reinforce new patterns of working together.

Second, changes in culture occur slowly. Although our teams differed in terms of their level of participation, we didn't find differences in the survey responses between schools whose participation was rated as low, medium, or high. This suggests that cultural changes are more dependent on the passage of time than on the intensity of involvement. Individuals are not likely to make significant shifts in how they think about and interact with each other quickly, especially when bucking tradition. Opportunities to interact and test each other are important, but the passage of time may be equally important.

Lastly, our sample of schools included situations where teachers and administrators worked collaboratively as well as situations where teachers were given authority to work without administrators. Our sense is that for schools to see the benefits of DL, the latter is more important than the former. More and more schools are encouraging teacher collaboration through common planning time and other venues. These opportunities are critical and should not be minimized in improving the culture of the school. However, we found more serious rifts in the relationships between administrators and teachers as demonstrated by the "we versus they" mentality that interviewees in many schools described before the introduction of DL. To reduce this divisiveness, administrators and teacher must work together on addressing important issues, hearing each others' perspectives, and deciding collectively how to move forward.

This study faced several limitations. Most important was the absence of any non-DL high schools in the comparison survey sample. Their absence greatly weakened the design and its capacity to make comparisons between DL and non-DL schools. A second limitation was the reliance on self-report data; there were no opportunities to confirm through observations what administrators and teachers told us in their interviews or survey responses. Finally, we did not look at more objective measures of school success or student performance; these might have revealed somewhat different perspectives on the success of DL versus non-DL schools.

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Appendix A: Instrumentation

#### **Interview Protocol**

As you know, I am here today to investigate the role distributed leadership has played in your school. We are hoping to discover areas of possible improvement as well as discover what areas are functioning adequately.

To do this, I have a series of questions regarding the DL program in your school. I will ask each question, even if some of your previous responses partially answered a question. I am asking each interviewee these questions to keep a uniformed standard between all the interviews conducted. I would like to remind you that your identity will be kept confidential and that these interviews are voluntary and you can discontinue the interview at any time.

- 1. How were you involved in the distributed leadership project
- 2. In what areas has the distributed leadership focused its work in this school? (please list all areas)
- 3. In which area did the school make the most progress?
- 4. How did the school's work in this area differ from how it would have usually carried out its work
- 5. How did the principal and faculty decided to focus on this area?
- 6. Was it necessary to build consensus in making this choice?
- 7. How did you go about building consensus?
- 8. How did you adapt to these changes?
- 9. What new skills did the principal and faculty need to learn to carry out this work?
- 10. What professional development was available to help the principal or faculty learn how to carry out this work?
- 11. How did the relationship between the principal and teacher change during your work in this area?
  - a. Become more positive/negative?
  - b. Became more collaborative/distant?
- 12. Did the work in this area improve teachers' performance in any way?
  - a. In what ways?
  - b. How do you know?
- 13. Was there any impact on student learning as a result of the work in this area?
  - a. In what ways?
  - b. How do you know

Thank you for your time.

### **DL School Survey**

a. Administrator b. Teacher c. Specialist d. Other Staff

1. What school do you presently work at?

2. What is your current role at your school?

3.	How many years have you been employed at your present school?  a. Less than 1 year b. 1 to 3 years c. 4 to 6 years d. 7 to 10 years  e. More than 10 years
4.	How many years of experience do you have in your current position?  a. Less than 1 year b. 1 to 3 years c. 4 to 6 years d. 7 to 10 years  e. More than 10 years
5.	Teachers and administrators talk regularly on an informal and formal basis about what is happening in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
6.	Teachers and administrators have decided collectively how we are going to do things around the school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
7.	Teachers do not fear administrator retribution in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
8.	Teachers do not volunteer to serve on committees in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
9.	Administrators trust teachers to carry out important non-teaching duties in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
10.	Teachers don't bother to complain in this school because no one listens to them.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
11.	Administrators do not rely on teachers for support in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
12.	Teachers have made changes in their classrooms to improve student learning.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
13.	Our school is better positioned to make improvements because administrators and teachers are working together.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

	The authority of administrators is threatened when teachers assume leadership roles in the school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
16. (	Collaboration between administrators and teachers has positively affected students.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
17	Administrators in this school count on teachers to play an active role in making decisions to
	mprove the school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
	Feachers have time in this school to discuss with each other the challenges facing them in their classrooms.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
19. I	Professional development has helped us figure out how to work with each other. a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
20	
20. /	Administrators make time for teachers to work together. a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
21. I	've learned a lot from working with administrators in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
22.	Teachers and administrators together have decided specific priorities this school should pursue.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
23.	Feacher committees in this school do not focus on improving student learning.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
24.	Feacher input is valued by school administrators.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
25. I	am asked to take on responsibilities that I do not agree with in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
26.	Feachers are comfortable in expressing their opinions to administrators in this school.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
	Student achievement is improving in this school as a result of administrators and teachers working together.
	a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

14. Administrators give teachers leadership responsibilities to gain support for their own ideas and

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

initiatives.

28.		-		•	ies to lessen administrators' workloads. d. Strongly Disagree
29.					dership roles in this school. d. Strongly Disagree
30.		_	-		fear of reprisals from administrators. d. Strongly Disagree
31.	Our sch		rs and teach	iers have leari	ned how to work together to improve student
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
32.					ces on classroom instruction. d. Strongly Disagree
33.					pport in this school. d. Strongly Disagree
34.		ked to take on res Strongly Agree	•		erstanding why I should do them. d. Strongly Disagree
35.		•			ew or additional responsibilities. d. Strongly Disagree
36.	the ent	tire process from	the sideline	S.	ership with teachers, but are really controlling d. Strongly Disagree
			_	_	
37.		strators in this scl Strongly Agree		-	out. d. Strongly Disagree
38.	Our sch	nool is focused on	its school i	mprovement រ	goals.
					d. Strongly Disagree
39.	Admini	strators in this scl	nool are cor	nmitted to wo	orking with teachers to improve instruction.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
40.				•	their classroom teaching responsibilities.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
41.	Our adı years.	ministrators have	changed ho	ow they work	with teachers in this school over the past few
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
42.	Our sch	nool faculty is fair	y stable and	d has little tur	nover except for retirements.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree

43.	Teache school		vated to do	a good job w	hen they assume leadership responsibilities in a
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
44.	The ch	•	ve made in	this school are	e not "add-ons," but truly impact student
		-	b. Agree	c. Disagree	d. Strongly Disagree
45.	Teache a.			•	sponsibilities in this school. d. Strongly Disagree
16	Teache	0, 0			n on leadership responsibilities, but have
40.		ed little recognition		-	in on leadership responsionities, but have
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
47.	Our scl		ors and teac	hers work tog	ether collaboratively to improve student
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
48.	Profess	sional developme	nt is provid	ed to help me	et our school's priorities.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
49.	Teache	er time in school r	not directly	focused on th	eir students is wasted.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
50.				_	nings done in this school.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
51.		ers can influence			
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
52.	Teache	ers and administra	ators in this	school have a	good understanding of what each other does.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
53.	Admin talent.	•	chers leader	rship responsi	bilities in order to groom future administrative
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
54.	Teache	ers are marginaliz	ed when it o	comes to mak	ing important decisions in this school.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
55.		•		•	over the past few years.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree

56. Teachers in our school are actively engaged in improving the school operations.a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

57.	Teachers are uncomfortable taking on leadership roles in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
58.	Teachers and administrators trust each other in this building. a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
59.	Teachers feel empowered in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
60.	Teachers and administrators work together to identify and make changes in school and classroom conditions to improve teaching and learning.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
61.	I've learned a lot from working with other teachers in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
62.	It is okay for teachers to close their doors and only concentrate on students in their classrooms.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
63.	We have regularly scheduled meetings where we work on our school improvement goals.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
64.	Teachers are actively engaged in improving teaching and learning in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
65.	Teachers work across grade levels and/or departments in this school.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
66.	Our administrators prefer a stimulating discussion among faculty about what should be done rather than making a decision by themselves.  a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
67.	Are you a member of the Distributed Leadership team at your school?  a. Yes b. No, I have never been a member of the DL Team c. No, but I used to be a member of the DL team

68. All of the influential voices in our school serve on the Distributed Leadership team.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

69. Teachers volunteered to serve on our school's Distributive Leadership team.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

70. Teachers were asked by an administrator to serve on our school's Distributed Leadership team.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

71. Our faculty provides input that focuses the school's improvement priorities.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

75.			-		outed Leadership team. d. Strongly Disagree
76.				ners have shar	ed leadership responsibilities on our
		uted Leadership t Strongly Agree		c. Disagree	d. Strongly Disagree
77.		stributed Leadersh her groups in this	•	representative	e of the different grade levels, departments,
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
78.	The ad	ministrators initia	ted the Dist	tributed Leade	ership project in our school.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
79.	of area	IS.			ets for teacher contributions in a broad array
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
80.		•			stributed Leadership effort.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
81.	•			•	am has accomplished so far.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
82.	and tea	achers.		·	rt to address tensions between administrators
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
83.			-		om professional development opportunities.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
84.			•	•	remained fairly stable over time.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree
85.			•		successes early on.
	a.	Strongly Agree	b. Agree	c. Disagree	d. Strongly Disagree

72. Teacher voice was an important reason for our school's involvement in Distributed Leadership.

73. The focus of our Distributed Leadership team is on teaching and learning for both teachers and

74. It is clear to me what the benefits are for our school participating in Distributed Leadership.

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

students.

- 86. The entire school is kept informed about the Distributed Leadership team's work.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 87. Our school joined the Distributed Leadership effort to find options to improve student achievement.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 88. The administrators are highly engaged in the Distributed Leadership effort.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 89. Distributed leadership has facilitated other improvement initiatives in the school.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 90. Most teachers in this school would prefer to not be involved in the Distributed Leadership effort.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 91. I understand the purpose of distributed leadership.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 92. Our Distributed Leadership team has taken on important work in our school.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree
- 93. Our Distributed Leadership team has established a focus for its work.
  - a. Strongly Agree b. Agree c. Disagree d. Strongly Disagree

Appendix B: Comparisons of DL Membership Items

	Currently On DL Team Never on DL Team		OL Team	Previously Tear		
Questions	Mean	SD	Mean	SD	Mean	SD
67. Are you a member of the Distributed Leadership team at your school?	1.00	0.00	2.00	0.00	3.00	0.00
68. All of the influential voices in our school serve on the Distributed Leadership team.	2.50	0.76	2.25	0.66	2.16	0.73
69. Teachers volunteered to serve on our school's Distributive Leadership team.	2.77	0.82	2.61	0.69	2.60	0.83
70. Teachers were asked by an administrator to serve on our school's Distributed Leadership team.	2.95	0.71	2.95	0.59	2.91	0.67
71. Our faculty provides input that focuses the school's improvement priorities.	3.09	0.63	2.94	0.55	2.81	0.76
72. Teacher voice was an important reason for our school's involvement in Distributed Leadership.	2.92	0.72	2.68	0.65	2.59	0.68
73. The focus of our Distributed Leadership team is on teaching and learning for both teachers and students.	3.13	0.66	2.87	0.56	2.84	0.65
74. It is clear to me what the benefits are for our school participating in Distributed Leadership.	3.08	0.73	2.43	0.75	2.51	0.72
75. I had a choice of whether or not to join the Distributed Leadership team.	2.97	0.80	2.39	0.77	2.59	0.88
76. Over time, administrators and teachers have shared leadership responsibilities on our Distributed Leadership team.	3.00	0.70	2.74	0.62	2.71	0.62

77. Our Distributed Leadership team is representative of the different grade levels, departments, and other groups in this school.	3.29	0.65	2.89	0.60	2.82	0.71
78. The administrators initiated the Distributed Leadership project in our school.	3.27	0.54	3.02	0.52	3.05	0.55
79. Distributed leadership has created additional outlets for teacher contributions in a broad array of areas.	2.93	0.70	2.67	0.63	2.54	0.74
80. I am not sure why our school is involved in the Distributed Leadership effort.	1.87	0.72	2.50	0.77	2.35	0.74
81. I am proud of what our Distributed Leadership team has accomplished so far.	3.02	0.67	2.65	0.66	2.57	0.68
82. Our school joined the Distributed Leadership effort to address tensions between administrators and teachers.	2.01	0.67	2.23	0.62	2.28	0.60
83. Our Distributed Leadership team has benefited from professional development opportunities.	3.01	0.66	2.68	0.63	2.68	0.60
84. Our Distributed Leadership team membership has remained fairly stable over time.	2.98	0.67	2.85	0.50	2.61	0.71
85. Our Distributed Leadership team achieved some successes early on.	3.03	0.59	2.74	0.55	2.78	0.50
86. The entire school is kept informed about the Distributed Leadership team's work.	2.90	0.75	2.51	0.77	2.57	0.81
87. Our school joined the Distributed Leadership effort to find options to improve student achievement.	3.12	0.53	2.97	0.49	3.00	0.43
88. The administrators are highly engaged in the Distributed Leadership effort.	3.07	0.67	2.90	0.60	2.84	0.68

89. Distributed leadership has facilitated other improvement initiatives in the school.	3.01	0.66	2.72	0.61	2.70	0.63
90. Most teachers in this school would prefer to not be involved in the Distributed Leadership effort.	2.40	0.74	2.53	0.64	2.57	0.74
91. I understand the purpose of distributed leadership.	3.28	0.60	2.61	0.77	2.78	0.69
92. Our Distributed Leadership team has taken on important work in our school.	3.13	0.70	2.74	0.62	2.75	0.61
93. Our Distributed Leadership team has established a focus for its work.	3.09	0.68	2.77	0.59	2.75	0.64