Establishing a Strong Foundation

District and School Supports for Classroom Implementation of the LDC Framework

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About Research for Action

Research for Action (RFA) is a Philadelphia-based nonprofit organization. We seek to use research as the basis for the improvement of educational opportunities and outcomes for traditionally underserved students. Our work is designed to strengthen public schools and postsecondary institutions; provide research-based recommendations to policymakers, practitioners and the public at the local, state and national levels; and enrich the civic and community dialogue about public education. For more information, please visit our website at www.researchforaction.org.

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RFA staff members traveled across the country to interview educators at the pilot sites and observe classrooms and professional development. Our team was also instrumental in developing interview and observation protocols and synthesizing fieldwork data into analytical memos. In addition to the authors, RFA literacy team members include Diane Brown, Kimberly Edmunds, and Tracey Hartmann. Kate Shaw, RFA's executive director provided guidance and insight throughout all phases of the research process. We would also like to thank our intern Kamaila Sanders, who transcribed interviews and contributed to the analysis of interview data. Finally, Eric Foster of MDF Research & Associates consulted on the development of the literacy and math teacher surveys, administered the surveys, and analyzed the data; we appreciated his responsiveness to our many requests for just one more analysis. RFA's Michael Norton also provided guidance for survey development and data analysis. Our Communications Director, Alison Murawski, and our Communications Assistant, Allison Petrosky ably coordinated many aspects of report production.

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Introduction

The Bill and Melinda Gates Foundation has invested in the development and dissemination of high-quality formative assessment tools to support teachers' incorporation of the Core Common State Standards (CCSS) into their classroom instruction. Lessons from the first generation of standards-based reforms suggest that intense attention to high quality instructional tasks (Elmore, 2010; Hiebert and Carpenter, 1992; Hiebert and Wearne, 1993; Jones et al, 1994), use of formative assessments embedded in those tasks (Black et al, 2004; Clarke and Shinn, 2004; Fuchs, 2004; Tunstall, 1996), and professional development (PD) that attends to both content knowledge and instruction (Birman et. al, 2000; Cohen and Hill, 1997; Kennedy, 1998) are essential considerations if teachers are to meet the demands of the CCSS.

Experts from the Literacy Design Collaborative (LDC) have developed a set of templates that can be customized by English/Language Arts (ELA), social studies and science teachers into writing tasks designed to facilitate CCSS-based student literacy and content learning and provide teachers with feedback about student mastery. LDC also developed a module structure that teachers can use to create a plan for teaching students the content and literacy skills necessary to complete the writing task. The tools are designed to target the "instructional core" by:

- Raising the level of content;
- Enhancing teachers' skill and knowledge about instruction, content and formative assessment; and
- Catalyzing student engagement in their learning so that they will achieve at high levels (Elmore, 2010).

In 2010-11, the LDC framework was piloted in six districts, a teacher network, and a network of schools. In most cases, school districts applied for and received grants to implement LDC; in others, regional intermediaries served as the grantee and as primary organizer of the work; and, in still others, national networks were the grantee and the organizer. In this report, which draws largely on data from the six districts, Research for Action (RFA) identifies the conditions and contexts for successful use of

the tools, and examines the actions that district and school-based leaders can take to support teachers' adoption and effective implementation of the literacy tools. It provides specific recommendations to guide local leaders as they gear up to help year one teachers deepen their use of the LDC tools and assist teachers who are just joining the initiative to efficiently gain the expertise and skills they need to successfully implement the tools.

This report addresses the following research questions:

1. What are district and school-based educators doing to support robust implementation of the LDC instructional and assessment tools so that the initiative's intended early outcomes are achieved?
2. What district and school-based conditions and practices hold particular promise for assuring intended outcomes for teachers and students, as well as for sustaining and scaling up the initiative?

School and Larger System Conditions that Support Positive Early LDC Outcomes

It has long been known that local conditions matter and that strong supports are necessary to effect the fundamental changes in instruction that are necessary to raise the achievement levels of students (McLaughlin, 1990; Rand, 1977). Our multi-method research effort during the pilot phase of the initiative has drawn on the research base about instructional change to construct a theory of action that guides our investigation into the development, adoption, roll-out, and impact of the LDC instructional and assessment tools. Early qualitative research and conversations with foundation leaders, research partners and LDC developers and PD providers have contributed to the continued refinement of the theory of action.

The success of this initiative begins with teachers—their response to the tools, their use of the tools, and the changes in knowledge and pedagogy that result. For these early outcomes to emerge, teachers need strong support at the building and district level. Figure 1 presents a map of conditions that our research indicates are important supports for achieving early outcomes. The map represents the portion of the theory of action which is central to this report.

Figure 1. Map of Conditions for Early LDC Outcomes

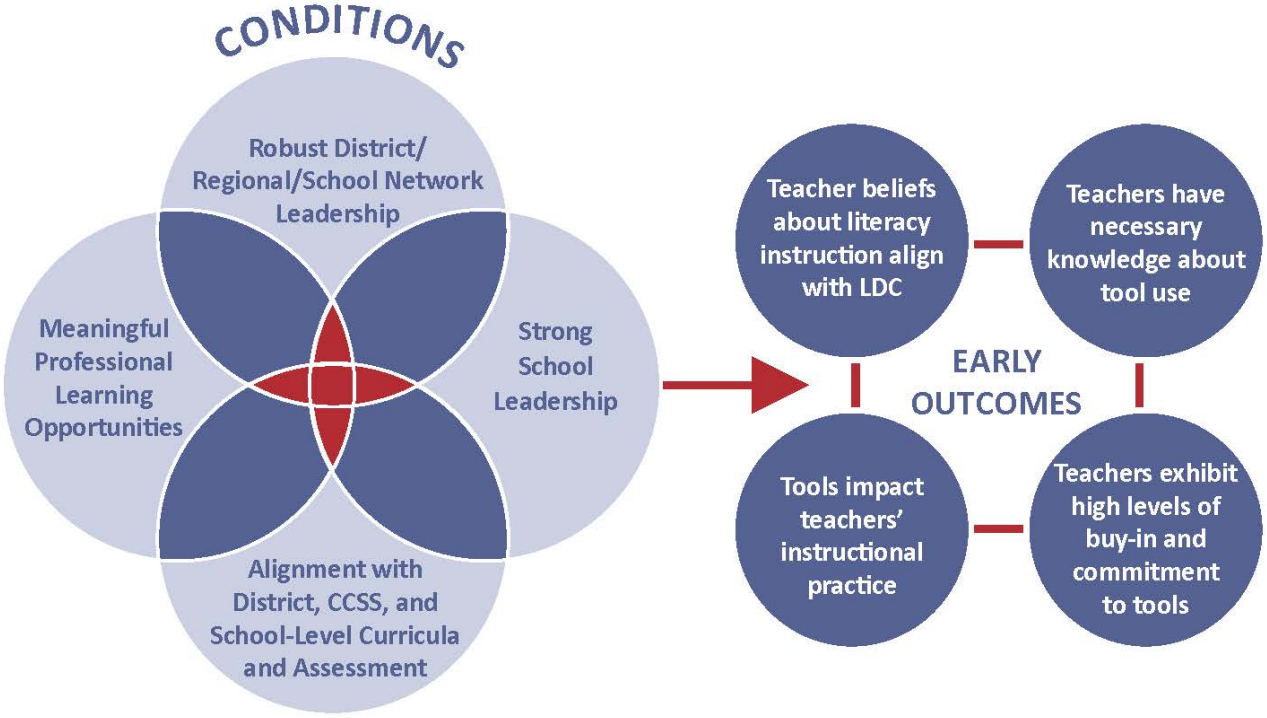
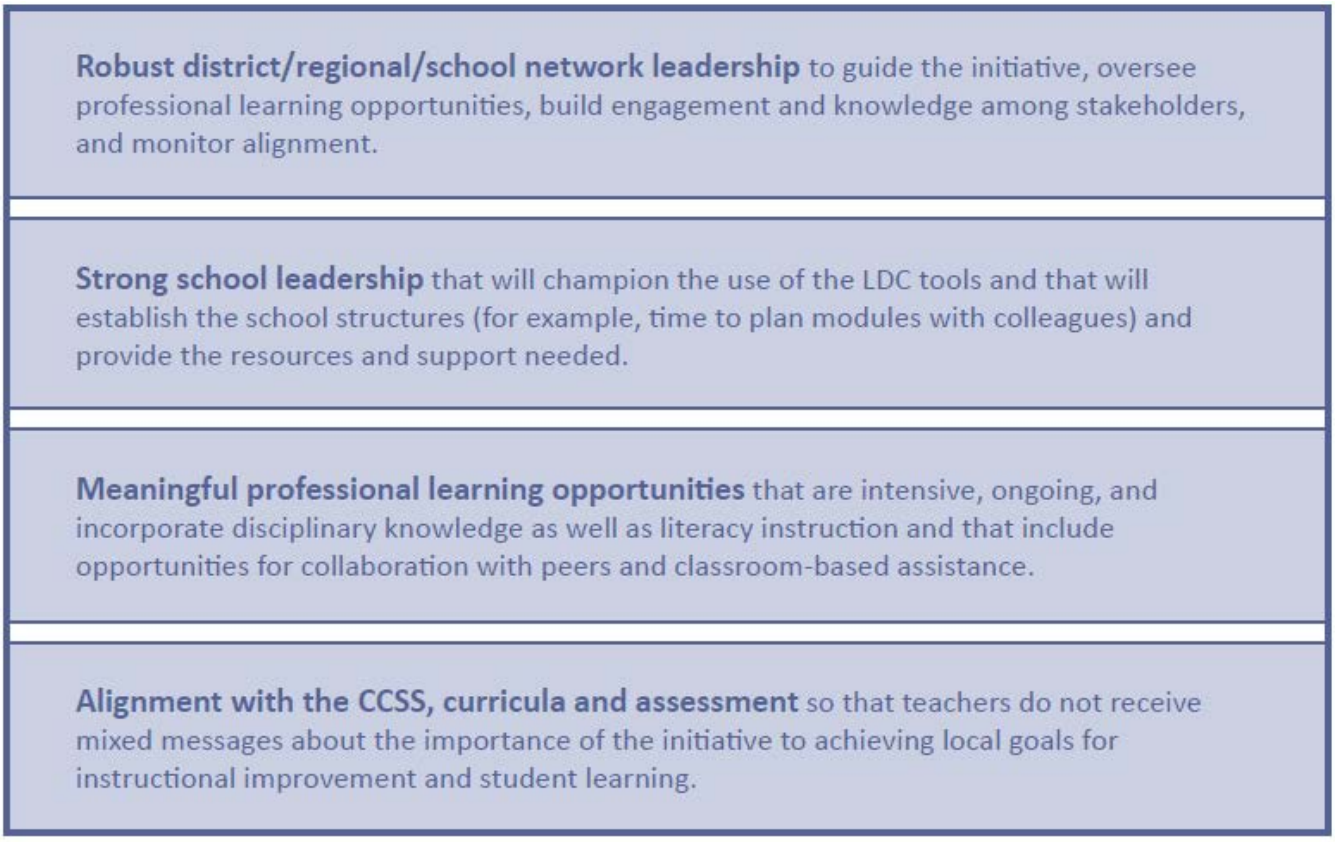


Figure 1 posits that certain conditions will contribute positively to the necessary teacher beliefs, knowledge, practices, and teacher buy-in that will sustain and lead to successful implementation of the LDC initiative in school districts. These conditions for success were identified by analyzing their relationship with early outcomes exhibited by teachers that we would expect from the LDC initiative. Figure 2 below elaborates on these conditions.

Figure 2: Conditions that Support Achieving LDC Early Outcomes



Early Outcomes for LDC

Figure 1 also delineates early outcomes for LDC. Teachers are the primary users of the LDC tools. We would expect that early indications of successful rollout would be seen in changes in teachers' beliefs, knowledge of LDC, practices, and their buy-in to the initiative.

Early results are encouraging: At the end of the first pilot year, both survey and qualitative research indicate that the majority of teachers bought into the LDC initiative, that their beliefs aligned with the initiative's goals, and that they have acquired knowledge and adopted practices that support LDC. Table 1 below provides summary information on the status of early teacher outcomes. This information offers context for understanding this report's findings on how conditions correlate with early outcomes. We posit that the relationship between the conditions for success and early outcomes is straightforward: When the conditions and supports that we have identified are present, teachers are more likely to display and report early indicators of successful adoption and use of the tools.

Table 1: Overview of Early LDC Outcomes

LDC OUTCOME	Status of LDC Outcomes after Year One of Implementation
Teacher beliefs about literacy instruction	**The majority of teachers' beliefs about teaching literacy are aligned to LDC.** Ninety-nine (99%) percent of teachers agreed that content area teachers should help students improve their reading and writing skills. Eighty-seven (87%) percent of teachers said that the use of the modules had raised their expectations for student writing.
Teacher buy-in to LDC	**Most teachers report a high level of buy-in to the LDC initiative.** Ninety-six (96%) percent of teachers report that they plan to make improvements in how they use the modules during the 2011-12 school year. Seventy-six (76%) percent of teachers report that they look forward to developing modules next year and 83% report that they look forward to teaching modules next year.
Teacher knowledge of LDC	**Most teachers report knowledge of how to use the framework and differentiate instruction.** Teachers said they had a good sense of what their students needed to know to complete the template task (93%), of how to use the instructional ladder (85%), and the types of mini-tasks to assign (92%).
LDC impact on instructional practices	**Most teachers report that their involvement in the LDC initiative has had an impact on their literacy instructional practices.** Teachers reported that LDC helped them find new strategies to teach their content (82%) and new ways to teach literacy skills in their content area (88%). Using modules, they are able to engage a variety of student groups, including: students with different literacy abilities (79%), ELL students (50%), special education students (65%), students who tend to be disengaged (68%) and disruptive students (57%).

Methodology

In consultation with the Gates Foundation, RFA focused its fieldwork on four of the six pilot district sites, with four site visits in the fall and three in the spring. In addition, throughout the 2010-11 school year, RFA conducted fieldwork at separate PD events and at cross-site meetings, whose purpose was PD and sharing experiences related to the LDC initiative. In the fall, a brief survey was administered to teachers in the fieldwork sites in conjunction with the teacher interviews. In the spring, a more

comprehensive web-based survey was administered to participating teachers in all sites. Table 2 below provides an overview of research activities.

Table 2. Overview of Research Activities

RESEARCH ACTIVITIES Fieldwork at four sites (Fall and Spring)	Number of Participants
POC Interviews	11
Principal Interviews	20
Teacher Interviews	73
Other Educator Interviews	18
Student Focus Groups	5
Classroom Observations	25
Professional Development Observations	2
Cross-Site Literacy Convening Observations	6
Fall Mini-Survey	50
Spring Teacher Survey (in all LDC sites)	96 Response Rate: 71%

RFA developed interview and observation protocols as well as the spring teacher survey to explore both conditions that might support implementation and possible early outcomes. For example, the instruments explored the roles that school, district, and regional leaders played in the initiative, as well as LDC PD and other supports, and successes and challenges related to overall implementation and to the four conditions. In addition, teachers were asked questions about early outcomes, including their beliefs about teaching literacy, whether the LDC tools have been helpful in adopting new literacy instructional practices and their early assessment of their students' learning. See Appendix A for a description of the survey measures RFA created to operationalize the conditions and early outcomes.

It is important to note the limitations of the data. Interview and survey data reveal teacher perceptions of areas such as conditions and outcomes. In some cases, teachers answer normatively and observation data reveal discrepancies, especially in the area of their classroom practices. It was also possible to triangulate the interview data – by analyzing whether differently positioned respondents (teachers of different grade levels and content areas, administrators) agree about outcomes. More information on research methodology can be found in Appendix B.

Organization of the Report

In the following sections, we report on the four key school and district conditions for robust implementation of LDC. In each section, we define the condition; describe what it looks like on the ground, and assess the specific contribution it is making to early indicators of success. Not surprisingly, these four conditions do not exist or operate in isolation; rather, they often co-exist and work synergistically. To illustrate this dynamic interplay, we present a brief case study of these conditions at work in one site that has shown itself to be particularly strong in its implementation strategy.

Conditions that Support LDC Outcomes

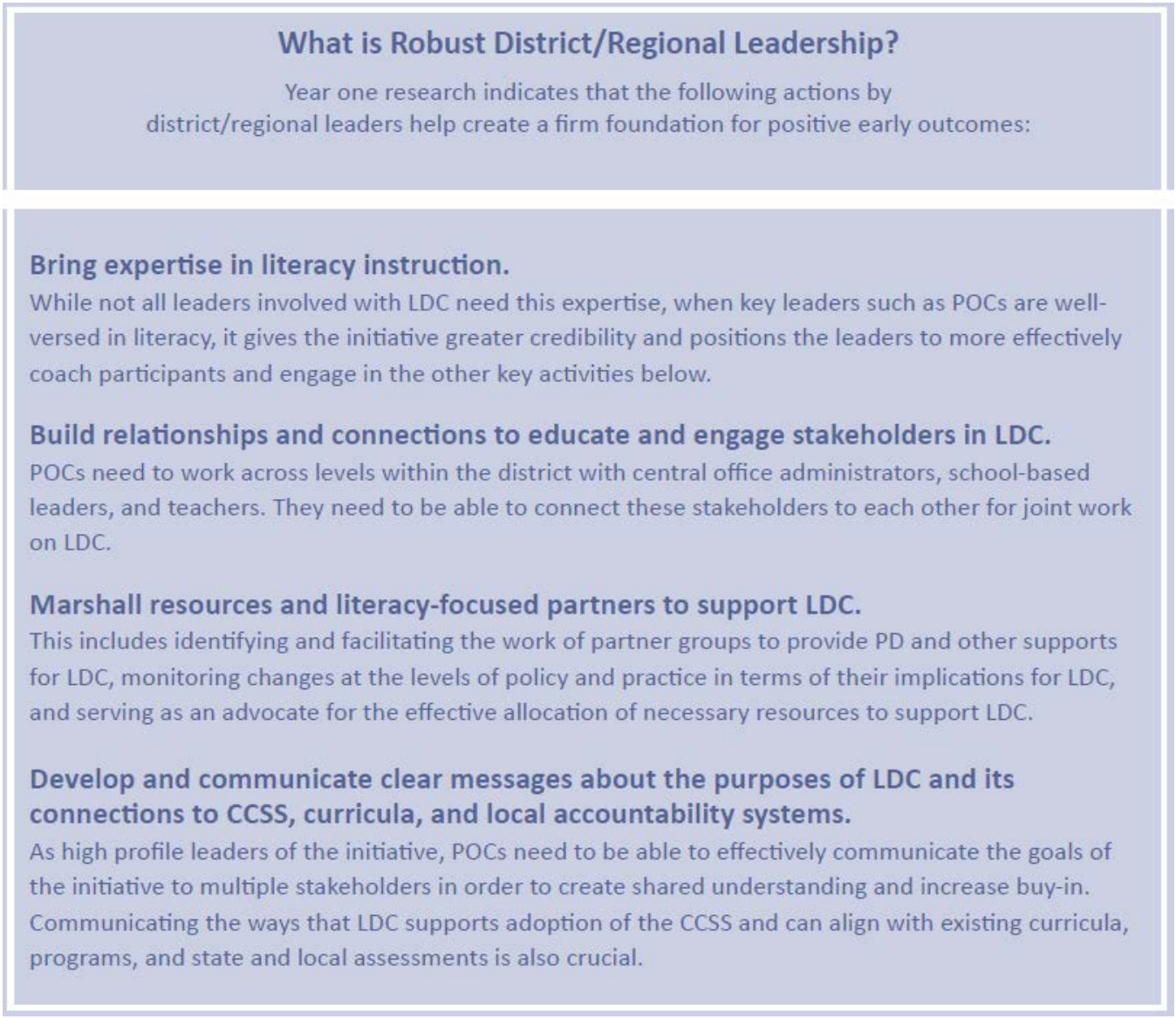
This section focuses on the conditions that year one research has identified as central to robust implementation of LDC within districts, and examines their relationship to the four early indicators of success described above.

Condition 1: Robust District/Regional Leadership

Each participating site – whether a district or a region – developed a plan for the implementation of LDC. Leaders wrote a proposal to the Gates Foundation, deployed resources, identified participating schools, decided how school leaders and teachers would be involved, and, to a certain degree, the types of support they received, especially the other literacy-focused partners that were involved and the formal PD sessions that were offered. District and regional partners also selected a Point of Contact (POC) - a term coined to define the individual responsible for managing and maintaining the initiatives at the district or regional level - who facilitated and participated in many of the LDC activities.

Our definition of robust leadership at the district and regional levels is summarized in Figure 3.

Figure 3. Definition of Robust District/Regional Leadership



How did district/regional leadership relate to early indicators of successful implementation?

Qualitative data indicate that robust district/regional leadership contributes substantially to effective LDC implementation. Interviews with teachers, principals, POCs, and LDC developers and PD providers, as well as observations, underlined the central role district/regional leadership played in supporting module development and implementation, as well as in facilitating larger systemic issues and the integration of LDC at the school and district level. Survey data also indicate that classroom visits and module feedback from the district lead were positively correlated with both teacher beliefs and tool impact on instructional practice.

What was the status of district/regional leadership during the first year of implementation?

Promising Evidence of Robust District/Regional Leadership

Regional partners added value to implementation. When sites had a regional partner, the partner provided additional resources and supports for LDC, including connecting LDC participants to participants in other districts. They were also able to publicize LDC to a wider audience and to engage state and regional administrators. Regional POCs were available to provide support and problem-solving to district POCs. In one case, as will be described in more detail in the case study, the regional POC coordinated systems to monitor implementation and to provide feedback to participants.

In every district visited, POCs played an integral role in the implementation of the LDC initiative. In the survey, teachers reported that the District POC visited their classrooms during module instruction and provided feedback more frequently than did any other group, including principals, instructional coaches/department chairs, LDC representatives, and teacher colleagues. In interviews, teachers frequently cited ways the POC supported their involvement in LDC.

All POCs brought expertise in literacy instruction to the initiative, which positioned them as more effective LDC leaders and provided a foundation for sustainability. POCs' roles included:

- Serving as liaison to BMGF and to key partners.
- Coordinating PD and other meetings, participating in all or most PD, facilitating some PD.
- Keeping the initiative in front of other important stakeholders, such as principals and the superintendent.
- Serving as a resource to participants for administrative and logistical issues and often for issues related to LDC content and implementation.
- In some districts, POCs reviewed and gave feedback about modules while they were being developed, helped participants address content and literacy questions related to development and implementation, and were a presence in participants' classrooms, observing and providing feedback.

When teachers encountered challenges, POCs could draw on their literacy expertise to lead problem-solving processes to address them. For example, in one district teachers struggled with the original LDC instructional ladder and module template; the POC led a process for revising the template to better fit teachers' needs. One teacher said,

> *I'd say the most helpful [aspect of professional development] is we've been able to shorten the instructional ladder. The original template was 24 pages long. Through brainstorming and feedback [the POC] was able to turn it into 14 pages, which has made it a lot more user-friendly and easier to manipulate.*

Potential Challenges

LDC growth and scale up in year two could strain district POCs' ability to sustain the rich and multi-faceted involvement and support they initiated in year one. Most district POCs juggled multiple responsibilities in addition to LDC in year one. As one POC noted, "It [LDC] was time-intensive and merited more than what we were able to give it." Despite this challenge, POCs provided robust leadership for LDC. POCs were stretched thin in the first year of the pilot, and they will need more help to support teachers in year two when the group of LDC teachers will expand.

As we discuss the remaining three conditions in this brief, it is important to keep in mind that the district's LDC implementation strategy is an underlying factor in all of those analyses. There was a great degree of variability in how some of the conditions manifested in schools, including the roles and involvement of school leaders and teachers and professional learning opportunities. The case study will examine how these variations played out and will highlight the centrality of the regional and district POC role in the LDC initiative.

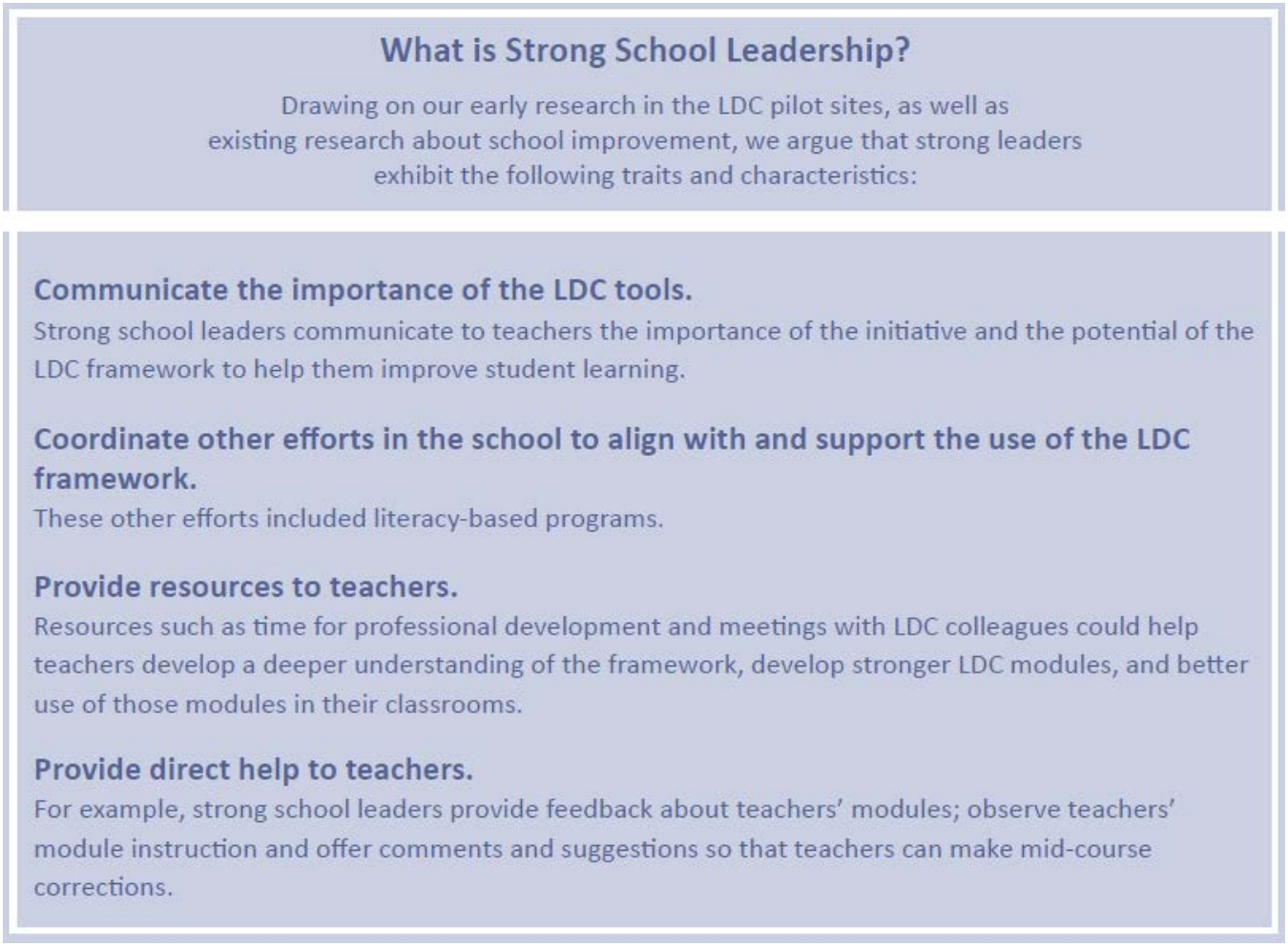
Condition 2: Strong School Leaders

Research on school reform has long pointed to the important role of school leaders in making long-lasting, substantive changes to instruction that will boost student achievement (Edmonds, 1979; Davis, Darling-Hammond, LaPointe, & Myerson, 2005.) Recently, research has also emphasized that school-based leadership cannot be located in a single person, but needs to be distributed beyond the principal. Teacher leaders can and should make contributions to the improvement of teaching and learning, not only in their own classrooms but across the school (Harris & Spillane, 2008; Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004). In the LDC initiative, teacher leaders are playing important roles; we designed the research to examine how they, as well as principals, are supporting implementation of the LDC framework.

Our goal was to uncover whether and to what extent strong school leadership functions as a condition of successful use of the LDC framework. To examine this question, we explored the ways in which teachers' perceptions of leadership at their school correlated with early indicators of successful implementation—namely, teachers' beliefs, knowledge, and practices relating to LDC, and their buy-in to the initiative.

Our definition of strong school leadership is summarized in Figure 4.

Figure 4. Definition of Strong School Leadership



How did strong school leadership relate to early teacher outcomes?

Strong school leadership was positively associated with all of the desired teacher outcome measures: teacher knowledge, teacher practices, teacher beliefs, and teacher buy-in. As can be seen in Table 3, the presence of strong school leadership was most strongly correlated with teacher reports of using LDC practices, possessing sufficient knowledge about the LDC framework, and high levels of teacher buy-in and commitment to the initiative. Although the relationship between school leadership and teacher beliefs about literacy was not significant, there is a positive correlation between the items.

Table 3. Relationship between Strong School Leadership and Early Teacher Outcomes

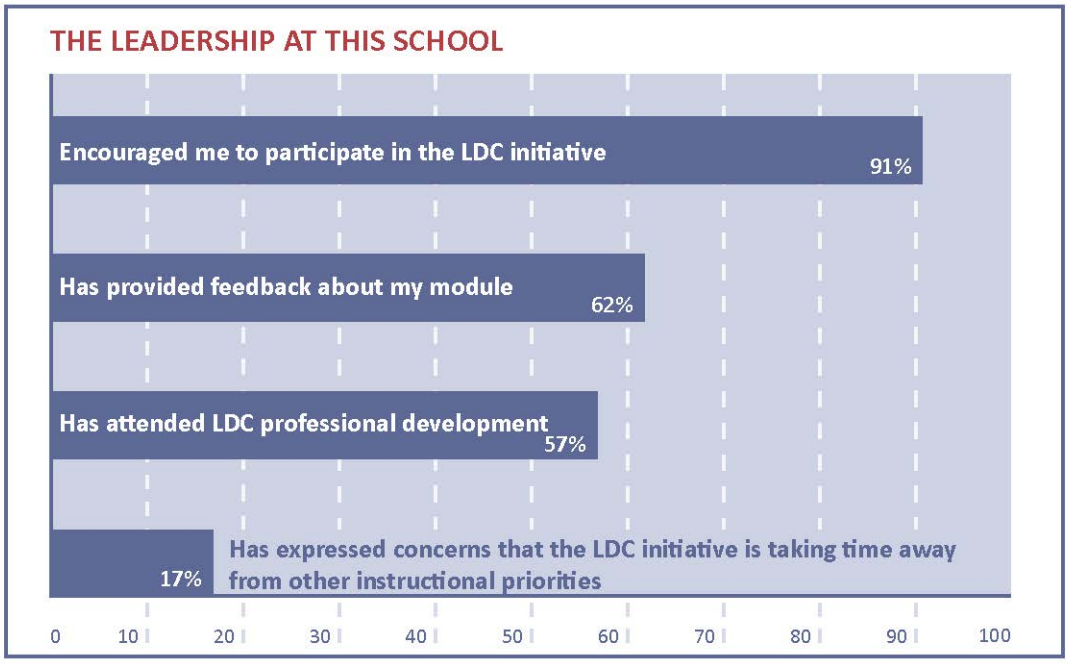
	Teacher beliefs are aligned with LDC	Teacher buy-in and commitment to tools	Teacher knowledge about tool use	Tool impact on instructional practices
Condition: Strong School Leadership	.12	.22*	.32*	.46*
				* p = ≤ .05

What was the status of school leadership during the first year of implementation?

Promising Evidence of Strong School Leadership

Teachers perceived that their school leaders supported LDC. Figure 5 shows that 91% of teacher respondents reported that they were encouraged to participate in the initiative by school leaders. Our interviews with teachers and principals indicated that, in most instances, this invitation came from the principal and it contributed to the message that LDC was an important effort. The invitation also indicated to teachers that they were valued staff members and that their principals believed they would be strong "early adopters" of the new literacy instructional practices and could make an important contribution to the initiative and their school.

Figure 5. Teachers' Perceptions of School Leadership



Our qualitative research indicated that all principals provided release time for teachers to attend PD outside the building; some provided meeting time for LDC teachers to collaborate. Though teachers occasionally expressed concern about missing too much class time, none had problems with obtaining release time or class coverage for PD.

In some districts, both staff members and principals are taking on leadership roles in LDC. In schools and districts where this occurred, these leaders are able to play an important role in providing support to participating teachers and in scaling up the initiative. One POC noted, "The reading specialist has really taken the lead… She took a stronger role [working with teachers in the second part of the year.] She has really helped build support for LDC in the district. She has been in the module review sessions with me and she'll follow up with teachers as a coach."

Potential Challenges

Many principals were not deeply immersed in the initiative. While the vast majority of teachers reported that school leaders had encouraged their participation in LDC, considerably fewer teachers reported that their principals were involved in more active ways, such as visiting their classroom during module teaching (21%) or offering feedback about module implementation (13%). Although Figure 2 above indicates that teachers reported more significant involvement of school leaders our qualitative research suggests that teachers likely included teacher leaders such as literacy coaches as well as principals in their responses to these items.

Interviews with principals, literacy coaches, and teachers indicated that principals were not highly engaged in LDC activities, such as PD sessions, observing LDC instruction and meetings of the LDC pilot group during the first year. Many principals did not have deep knowledge about the LDC framework. For example, some referred us to the school's reading coach for details about how activities were going. Nevertheless, principals spoke positively about the program. Many expressed excitement about the success some of their teachers were having with the modules and the high quality of student writing that resulted.

Seventeen percent of teachers reported that their school leaders had expressed concern that LDC took away time from other instructional priorities. While this represents a minority viewpoint, teachers' perceptions that their principal sees LDC as a barrier to reaching other instructional goals could impede implementation.

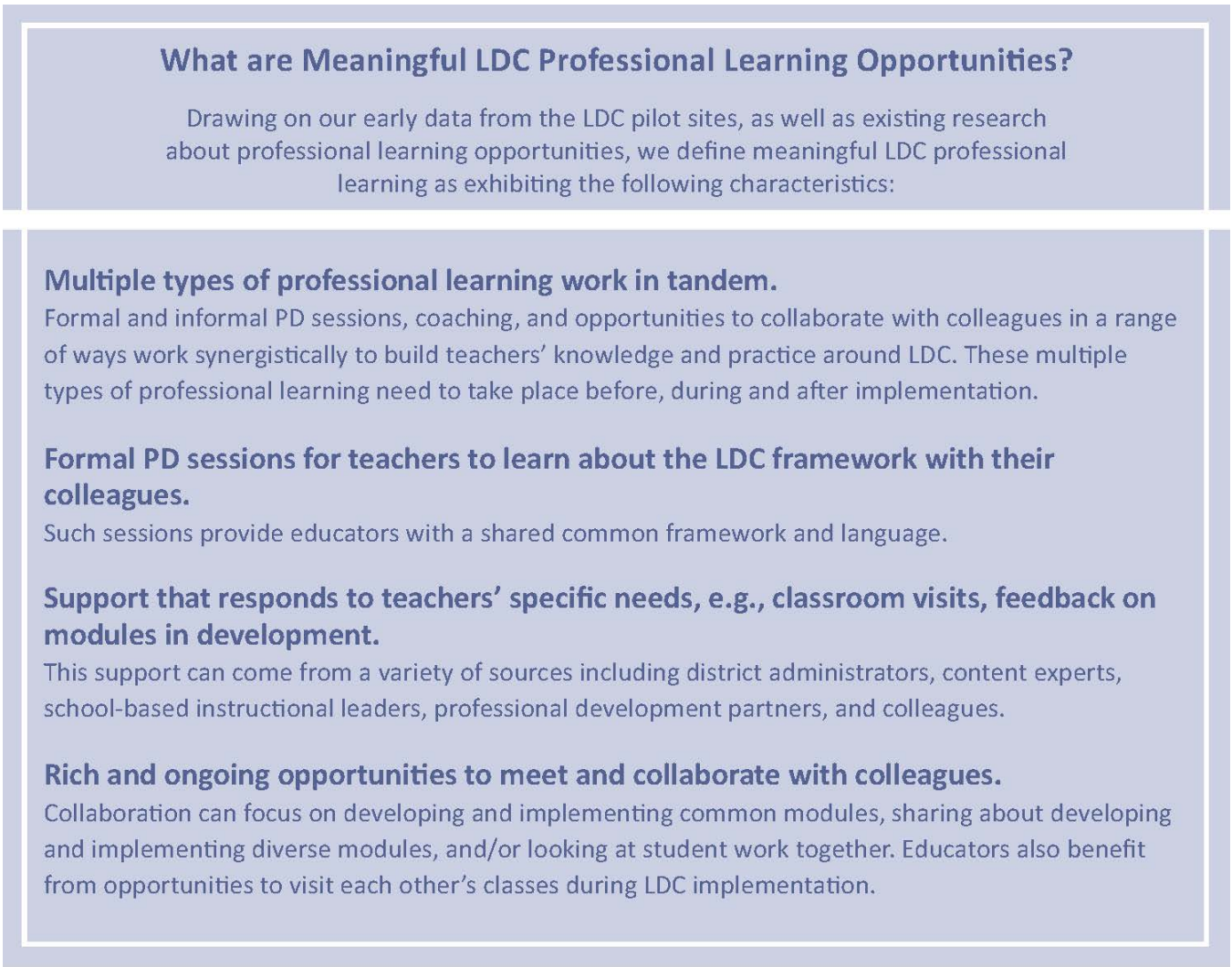
Condition 3: Meaningful Professional Learning Opportunities

Research has indicated the central role of professional learning in supporting changes in instruction (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009).

In this section, we examine how professional learning opportunities can contribute to the successful adoption of LDC. Included in our definition of professional learning opportunities are: 1) formal and informal PD opportunities 2) individualized support to teachers and 3) the opportunity to develop and implement LDC modules.

A summary of our definition of meaningful professional learning opportunities is provided in Figure 6.

Figure 6. Definition of Meaningful Professional Learning Opportunities



How did meaningful professional learning opportunities relate to early teacher outcomes?

In this section on correlations between professional learning opportunities and early outcomes, we first examined: (1) a composite factor focused on PD (LDC formal PD sessions as well as meetings and discussions with LDC colleagues); and (2) a composite factor focused on individual supports (coaching, classroom visits, collaboration with specialist teachers).

Professional Development

Professional development was significantly and positively associated with LDC impact on instructional practices. The other teacher outcomes are positively associated with PD but the relationships are not significant. These correlations are provided in Table 4.

- A sub-analysis (not pictured) of components of LDC PD indicated that formal and informal interaction with LDC colleagues regarding student work and teaching approaches had the strongest positive association with the outcome of tool impact of instructional practices. Thus, collaboration with colleagues may hold particular promise for reaching these early outcomes.

Table 4. Relationship between PD and LDC Outcomes

	Teacher beliefs are aligned with LDC	Teacher buy-in and commitment to tools	Teacher knowledge about tool use	Tool impact on instructional practices
Condition: Professional Development	.17	.16	.18	**.28***

* p = ≤ .05

Individual Support

Individual support was positively and significantly related to increased teacher knowledge about tool use and LDC tool impact on instructional practices. As Table 5 shows, the relationships between individual support and teacher beliefs and buy-in are also positive, though minimal.

Teachers who reported a greater amount of individualized support from district leaders and colleagues reported positive outcomes more often. The kinds of supports that proved to be important in our analysis included developing or implementing modules with a reading specialist or a special education teacher, classroom visits during module instruction, and module feedback from the district POC or from a teacher colleague.

Table 5. Relationship between Individual Support and LDC Outcomes

	Teacher beliefs are aligned with LDC	Teacher buy-in and commitment to tools	Teacher knowledge about tool use	Tool impact on instructional practices
Condition: Individual Support	.05	.09	**.23***	**.36***

* p = ≤ .05

- A sub-analysis (not pictured) of components of LDC individual support indicated that , compared with support from reading specialists, special educators, and teacher colleagues, support from the POC (e.g., classroom visits and feedback on modules) had the strongest positive association with the outcomes of teacher knowledge and impact on instructional practices.

Developing Modules: A Combination of Professional Development and Individual Support

Qualitative data indicated that developing modules functioned as a professional learning opportunity that seemed to be associated with positive early teacher outcomes. Developing modules is a particular type of professional learning opportunity unique to LDC. It incorporates aspects of both PD and individual support. Teachers worked on their modules in formal PD settings as well as through informal work with colleagues. Many also received individual support for module development. Collaboration with colleagues was key to module development. In comparison with teachers who only taught modules, teachers who both developed and taught modules had a richer understanding of the process and the framework. Additionally, they more often demonstrated ownership in adapting module instruction to meet student needs.

What was the status of professional learning opportunities during the first year of implementation?

Promising Evidence of Meaningful Professional Learning Opportunities

Survey results indicated high satisfaction with PD. The majority of teachers (between 82 and 84%) stated that PD focused on the LDC initiative-- whether facilitated by LDC, the district, or regional partners-- helped them use the LDC framework effectively. To varying degrees, PD in all sites took place before, during and after instruction of the modules. Teachers relied on the kind of ongoing PD available in LDC to help them address the challenges of implementation. For example, many content area teachers reported that responding to student writing was challenging for them. However, content area teachers who spent time focused on working with rubrics and on strategies for responding to writing said that their knowledge about and degree of comfort in responding to writing had greatly increased.

Coaches provided an important support to teachers. Participants appreciated having coaches available whom they could call on to give them feedback when they ran into problems and questions. Those who played coaching roles included reading coaches in one district and POCs in others. They helped with developing modules, looking at student work; and they also visited classrooms and provided feedback. A middle school science teacher described getting assistance from the district content specialist in developing a module, and from the POC in looking at student papers. He noted, "The individual support [has been the most helpful aspect of PD.] It helps when I'm in the heat of it…to clear up the questions that I have, even the day of [teaching a module]."

LDC is encouraging collaboration across subject areas, grade levels, and schools, which is an effective type of PD/support. Such collaboration broke down barriers that often exist in schools and districts. For example, in one district, teachers collaborated vertically, i.e., middle school and high school teachers from the same content area worked together. Teachers from the same content areas and grade levels sometimes worked together across schools, counteracting competition between schools that previously had made such collaboration rare. Teachers also sometimes collaborated across content areas, with each teacher bringing his or her own expertise. Many teachers wanted to visit and observe other teachers implementing LDC. One POC said, "We have seen teachers develop collaborative communities across disciplines….We speak the same language [now through LDC] and we can work more systematically."

Collaborating with colleagues is a central feature of the LDC initiative that enhanced tool use. At all four sites visited, teachers said that collaboration was important in making the LDC work successful; many called it the most useful aspect of PD. Ninety-one percent of teachers surveyed said they would describe their LDC colleagues as collaborative. Specialist teachers, including reading and special education teachers, collaborated with LDC colleagues in some districts and played an important role in supporting professional learning, module development, and implementation.

Potential Challenges

In interviews, participants frequently mentioned that finding enough time to collaborate can be a struggle; some people forecast that this would be a greater challenge in year two. According to one POC:

> *Time is always a challenge. Time for teachers to collaborate. Time to fit the modules into the class. Time to create the modules. This year wasn't a challenge because this year there was funding to pay teachers to work after school and to work at night and over the weekend. When that is no longer the case, this is a lot of work.*

Lack of peers to collaborate with was a barrier for some teachers in year one. Teachers and principals noted that when teachers lacked the individual support of collaborating with grade and/or content

level peers, implementation was more challenging. One principal said, "I do think it needs to be expanded so that we can pull a social studies teacher from each grade level on board here or maybe add another teacher from each content area. So they have somebody else to work with. It's difficult when you're the only one in a school doing this." A teacher said:

> *Our curriculum maps are pretty tight…. if you're adding something [e.g., LDC], what are you taking away to be able to do this? If you pull more people in and figure out what gets taken out, that would make it easier for the teachers. I'm the only one here at the school. The schools are so spread out. I think collaboration would be better. We could bounce things off of each other, share right here in the building. (middle school ELA teacher)*

Teachers who implemented modules developed by others reported having less understanding of some aspects of module implementation and reported struggling more with implementation. Interview data support and expand on the survey finding about the impact of module development. In most districts teachers both developed and implemented modules; in one district, on the other hand, reading coaches developed modules for teachers to implement. The teachers who did not develop their own modules also participated less in LDC PD, since much of the PD was focused on the reading coaches who wrote the modules and supported teachers in implementing them. Thus, it is not clear to what extent the different experience and perceived outcomes of such teachers might be related to the process of module development itself or to participation in PD.

Nevertheless, in interviews, many teachers spoke about how the module development process was central to their understanding of LDC and to strong implementation. One teacher, who had implemented modules developed by district reading coaches, described how she understood the modules in a new way after having the opportunity to collaborate with reading coaches on module development late in the year:

> *The process was an eye opener in terms of understanding the theory behind LDC and understanding that you start with this huge goal and you create a ladder, and that term ladder I really was not familiar with that. But then going through the process of planning the lessons and making sure things matched up with the strategies that you are trying to teach and the goals.… this is so structured and it forces you always to go back to the original goal and always address that and keep those objectives in mind so that was a huge part of what I learned from it. I would love to continue to develop modules. [middle school reading teacher]*

Condition 4: Strong Alignment of LDC with the CCSS, Curricula and Assessment

Research on educational reform indicates the critical role alignment plays in adoption and sustainability. As Coburn notes, "Teachers and schools are more likely to be able to sustain and deepen reform over time when school and district policy and priorities are compatible or aligned with reform" (Coburn, 2003, pg. 7). Teachers who perceive alignment between the educational goals of their schools and districts and the goals of the LDC initiative are likely to be more willing to fully engage in or buy-

in to the new initiative; increased buy-in, in turn, could lead to the deepening, spreading, and sustaining the initiative.

Our definition of strong alignment of LDC with curricula and assessments is summarized in Figure 8.

Figure 8. Definition of Strong Alignment

How did alignment related to teacher outcomes?

Of all the conditions, perception of strong alignment between the LCD and existing curricula and standards was most strongly related with early teacher outcomes. The correlation analyses demonstrate that alignment has a strong positive association with teacher practices, teacher knowledge about LDC, and teacher buy-in (see Table 6). Furthermore, our interview data reinforces this finding, suggesting that most teachers' perceptions of alignment affected the degree to which teachers bought into the goals of LDC and the degree to which they adopted the instructional practices that LDC intended.

Table 6. Relationship between Alignment and LDC Outcomes

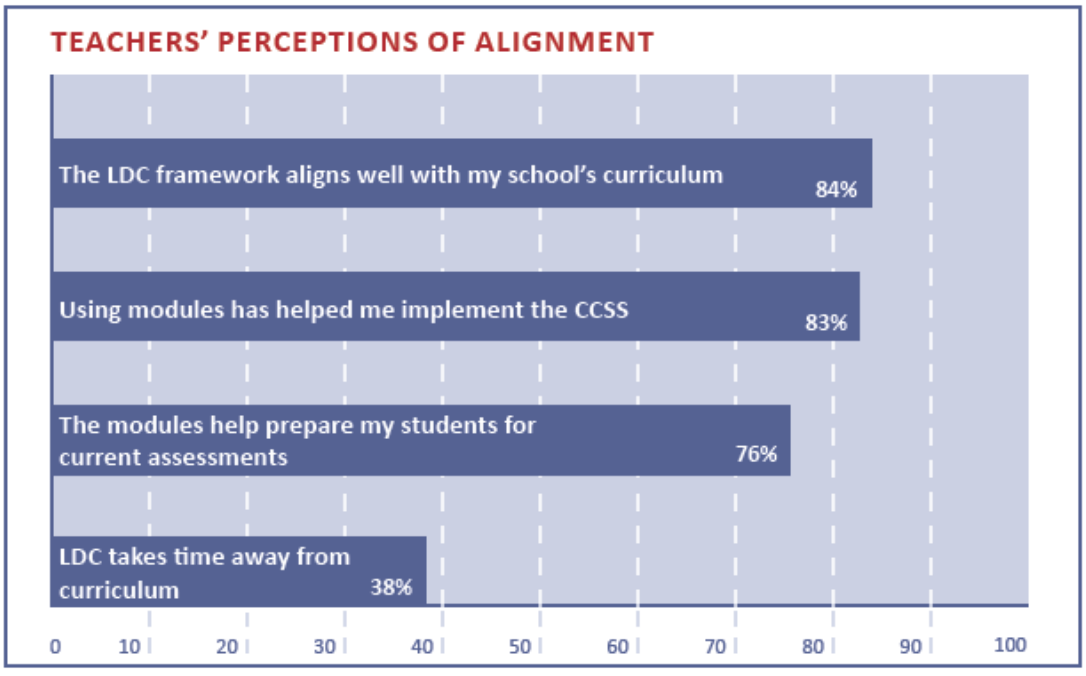
	Teacher beliefs are aligned with LDC	Teacher buy-in and commitment to tools	Teacher knowledge about tool use	Tool impact on instructional practices
Condition: Alignment	.20 (almost sig)	.44*	.42*	.50*
				* p = ≤ .05

What was the status of alignment during the first year of implementation?

Promising Evidence of Alignment

Survey and interview data suggest that most teachers perceived their curriculum to be aligned with the LDC framework and reported that using modules would help them implement the CCSS. (See Figure 9). The teacher survey included four items about teachers' perceptions of alignment. Teachers were asked to answer questions about their schools' curricula, curriculum coverage, and their current assessments. Since many districts are in transition as a result of adopting the CCSS, it was also important to see if teachers believed that their involvement in LDC would help them implement the new standards. Eighty-three percent of teachers believe that their involvement in the LDC initiative will help them do so. Figure 3 provides the percentages of teachers expressing agreement with statements relating to alignment of the LDC with district assessments and curricula.

Figure 9. Teachers' Perceptions of Alignment



Teachers reported that the framework aligned with district-wide instructional strategies, such as Collins writing and CRISS, which is used in an Advanced Reading class, and a new ELA curriculum called Springboard, which will be used in two sites beginning with the 2011-12 school year.

> **Instructional alignment**: *I really think probably the CRISS strategies [were the most helpful PD] simply because within the modules, the lessons themselves, many of the activities that we use have an element of some CRISS strategy within each module so just being familiar with those strategies and those techniques that are used in the reading classroom, just facilitates being able to conduct the lesson and know what we are doing. (middle school reading teacher)*

> **Curricular alignment:** *We [ELA teachers] have a lot of leniency in what we choose to teach and read. [We have] a little more time. Whereas in history, [you] got to teach x and y. For mine [ELA], I could've taught the Kite Runner or a book on the Holocaust - you're looking at a whole girth. With ELA it's an easy, smooth fit. (high school ELA teacher)*

Potential Challenges

When teachers perceived a lack of alignment between LDC and state assessments, they tended to see modules as inadequate for their students' instructional needs. In one district, many teachers reported that they needed to supplement modules with direct instruction to prepare their students for the state test. For this reason, teachers reported that they saw little alignment between their previous method of teaching for mastery of the state standards, the LDC framework which replaced it, and the state test. Below is statement from a teacher who reported a disconnect between the framework and the preparation students needed for the state test:

> *I think that is an area that I felt that I needed to stop somewhere halfway, and go to teaching explicit reading strategies because it was near the [state test]so I did take some time to do that. I know that a lot of the strategies are embedded in the lessons but I felt like they still need very explicit lessons and very direct and to the point, so I think they really need that…There was not enough of that in the modules. (middle school reading teacher)*

Teachers in this site did teach the modules, but also included instructional activities and lessons from their "old" way of teaching, which was not aligned with the LDC modules. At this point in the initiative, teachers expressed little confidence that strictly sticking to LDC modules would help their students produce the desired results on the state test. This particular district has plans to revise the modules so that the alignment between the modules and the state tested skills are more visible to teachers.

More than one-third of teachers (38%) raised concerns that implementing modules can interfere with curriculum coverage. Almost two-thirds of our interview respondents also mentioned that the

use of modules has affected teachers' ability to adhere to their curriculum pacing guides. A perceived lack of alignment between pacing guides and the time needed to teach a module would exacerbate this concern, because it could prevent teachers from effectively executing their instructional ladder in a way that will produce increased student content and literacy learning.

Case Study

When the rubber hits the road: Building supportive conditions for LDC implementation in the Cypress and Redwood School Districts

As noted in the introduction, there were three kinds of grantees in the pilot year: school districts, regional intermediaries, and national networks. In this case study, we focus on a regional grantee that worked with two nearby school districts. We chose to highlight this regional intermediary and its two districts because both qualitative and survey data indicated that conditions for strong implementation were present in these sites. Our survey data indicated that the conditions for success in these two districts were the strongest among pilot sites; our qualitative data provided insight into how the intermediary and its two districts have achieved robust implementation at the end of the first pilot year. Districts without regional partners can also adopt many of the strategies and practices outlined here.

We use the case study to illustrate how the four conditions of successful early implementation work in tandem to create a context that supports early markers of success: namely, the acquisition of the kinds of knowledge, skills and beliefs that teachers need to use the LDC tools effectively. At this early stage of the initiative, we are not making the argument that a regional intermediary strategy has the best chance for success. Instead, we assert that whatever configuration of site leadership – regional intermediary, district, and/or national network – leaders need to pay close attention to providing teachers with multiple high-quality resources in a highly coordinated and intense effort such as the one described below.

Cypress and Redwood[1] school districts are located in the same state, only about an hour apart. They share an important partner, a regional intermediary organization that provides overall coordination of the initiative and works with the district POCs to organize and provide PD and coordinate and review the development and use of LDC modules. The intermediary serves as the grantee and submitted the proposal to the Gates Foundation, after working closely with representatives from both districts to create it. POCs from both districts collaborated with the regional POC and with each other to strategize and manage the initiative. These districts were the smallest of those we visited, with a total of 6 or 7 schools, versus 20 and over 200 in the other districts.

[1] District names are pseudonyms.

Regional and District Leadership: A Highly Coordinated Effort

In both districts, POCs were assistant superintendents. They and the regional POC brought significant literacy content knowledge to their role. Their positioning in the district office allowed them to coordinate with both their superintendent and the building principals, to trouble-shoot challenges, and to facilitate any needed central office decisions. Both POCs played very active roles in LDC and worked closely with the intermediary organization, a regional office that provides supportive services to multiple districts. POCs and the intermediary met monthly to plan and problem-solve. They developed and tested a rubric to assess LDC implementation during classroom observations. POCs also involved district superintendents and building principals in bi-monthly leadership team meetings, again combining the two districts. The three POCs worked together to manage multi-faceted PD offerings, engaging a wide variety of partners to provide supports that would be aligned with LDC and would enhance implementation.

School Leadership: Creating Supportive Structures

Principals in Cypress and Redwood were moderately involved in the LDC initiative, but both principals were very supportive of the initiative. In consultation with their POC, principals selected or invited teachers to participate. The structure of bi-monthly leadership team meetings helped to keep principals engaged in and informed about LDC. Principals had access to all the data from the project, including observation rubrics and teacher reflections. Principals facilitated arrangements for LDC teachers to attend multiple full-day PD sessions. The principal in Cypress participated in some of the classroom observations that the POC and intermediary conducted. At the end of year one, a new principal was brought into the Cypress middle school. The district invested in the sustainability of LDC by sending the new principal to the New Orleans CRW convening. Cypress also had a very active and involved reading specialist who developed and taught modules. The POC and intermediary report that she became an influential leader in this site's LDC work. In Redwood, teachers were positioned to become school-based leaders in Year 2. The intermediary noted that at a June training for year two teachers, "all the year one people showed leadership. I don't know if I'm ever going to see that again. It's rare that every single person gets behind an initiative."

Professional Learning Opportunities: A Rich Blend of PD and Individualized Support

Professional learning opportunities in Cypress and Redwoods were more intensive than in the other four sites. The districts and the intermediary were all committed to providing an array of PD options, including formal PD sessions, coaching and mentoring, and collaboration with a range of colleagues.

Professional Development

PD opportunities included: (1) formal meetings focused on mastering the LDC framework and working with modules and resulting student work; (2) PD on supplemental programs that could provide support for implementing the framework; (3) weekly site-specific meetings to address needed topics, to problem-solve and to collaborate in smaller groups.

The district's designated LDC PD provider spent 10 days total in the region to provide a range of PD and consultation. She co-facilitated formal PD sessions focused on the LDC framework, developing modules, and scoring student work. She also participated in classroom observations at each school, attended grade team meetings to provide feedback on student work, and consulted with the intermediary and the POCs during her visits.

Interviews with teachers point to three additional professional learning opportunities with a strong impact on teachers' ability to develop and teach modules. Both Cypress and Redwood participated in PD focused on Collins writing and MetaMetrics. A number of LDC teachers also participated in an optional PD on the Socratic Seminar provided by the National Paideia Center. Teachers said that these learning opportunities aligned well with LDC and that they gave them specific activities to incorporate into the instructional ladder. Collins writing provided a helpful structure and guidance for teaching and responding to writing. The Paideia Socratic Seminar gave teachers a structure for facilitating discussions in their classroom. MetaMetrics' Oasis software provided teachers with a resource to access content rich reading materials for their students' varied reading levels.

> **Collins Writing:** *Collins writing has been the biggest help. LDC has put writing back in focus for us [and showed us we didn't] … have a way to teach writing across the board across the curriculum. When I tried to teach writing in the past it was a guessing game as far as what the kids knew. I didn't know how to go about it. Now we're more structured and more successful. (middle school social studies teacher)*
>
> **Paideia Socratic Seminar:** *The piece that pulled it [Task 2] together for me was Paideia. It fits beautifully with it. It helps students share ideas in a risk free environment and the kids get to share their thinking. It really helped my ELL and special education students. They really participated. (middle school science teacher)*
>
> **MetaMetrics and Oasis:** *The MetaMetrics piece certainly helps us in terms of credible resources for students to access. That is one area that we struggled with in the past -- having something at our finger tips that we can go in and search during the planning process to help differentiate to reach the vast multitude of readability levels that we have in classrooms. (POC)*

In both sites, teachers participated in weekly meetings with LDC peers and their POC where they developed modules collaboratively, discussed the teaching of modules, and scored student work. The regional POC participated in these meetings approximately once per month. In one district, the principal and K-12 language arts supervisor also attended the weekly meetings when possible. The meetings provided participants with opportunities to raise questions and discuss emerging issues. They provided extensive opportunities for work on module development and teaching and allowed teachers to develop a strong working knowledge of the LDC framework.

Individual Support

While all sites included in RFA's fieldwork had a strong POC who managed the grant, organized LDC PD, and provided assistance in developing and/or teaching modules, the POCs in Cypress and Redwood, with the contributions of the intermediary, provided a particularly rich combination of supports to teachers that led to more robust implementation. The POCs and intermediary regularly reviewed teachers' modules prior to the teaching of them. The intermediary reported that this process helped them identify areas of the modules in which teachers could increase the rigor. In addition to the revision of modules prior to teaching, the POCs and the intermediary developed a rubric to observe teachers classrooms during module instruction. As noted above, POCs and the intermediary conducted more than 120 classroom observations of LDC teachers across both districts. These took place both while teachers were teaching modules and when they were not, so that observers could gauge the degree to which module activities had spread into non-module instruction.

One rich resource for support was the weekly reflections about LDC which teachers submitted electronically to the intermediary. These gave the intermediary a way to monitor issues that needed attention and she responded quickly to teachers' questions and concerns.

Developing and implementing modules with other educators, including a reading specialist, special education teachers, or a librarian were also features of these two sites. Cypress teachers collaborated with a reading specialist and special education teachers on module development and, in some cases, implementation. Redwood teachers worked with a librarian to find content rich reading materials at their students reading level. In one instance, the librarian rewrote an article so that students with lower reading levels could access the information. The addition of educators with specialized knowledge enhanced the pilot year in these two sites.

Many teachers in these sites also experienced a high degree of collaboration with content area and often grade level peers. Teachers developed modules together, taught them at the same time and could compare notes on what was working and what needed changing. Some graded student work together. One teacher noted, "The conversations between the teachers [have been the most helpful aspect of PD for me]. [Grade/content teacher partner] has been a very valuable partner for me. Since we're teaching the same thing, any problems that arise, [I can find out]: is he having the same problems? We have two brains to put together to solve the problems."

Alignment: Linking LDC to the CCSS, Curriculum, Assessment, and New Literacy Programs

Cypress and Redwood teachers saw a high degree of alignment between LDC, their curriculum and the state high-stakes assessment. Many reported that they believed that LDC will prepare their students for post-secondary success. Teachers at Redwood reported evidence of increased student learning on their district benchmark assessments.

I think it helped them with their writing so I'm sure it helped the kids that took the writing portions of the test and I saw their answers; they all had answers. Our benchmark scores with the writing scores have gone up. The gains they made on our team were amazing. (middle school science teacher)

It definitely fits with the reading and writing portion of the state test-gives them the chance to be given different reading materials than what a teacher does in their classroom. Highlighting main idea and supporting details is highlighted on the state test and we do it in all the modules. (middle school ELA teacher)

As noted above, teachers in both districts also indicated that programs such as Paideia, Collins writing, and MetaMetrics, were aligned with the LDC modules and student needs, so that their use strengthened implementation.

Lessons Learned from Cypress and Redwood

Cypress, Redwood, and their intermediary provide a first glance into how strong, positive conditions can work together to support and enhance the use of the LDC framework. The high degree of coordination by the district and intermediary leaders, along with the structures and practices they initiated, helped to create those positive conditions. High degrees of intra-district coordination and similar practices are possible in other kinds of sites. One caution, however, is that this initiative is rolling out in a time of fiscal cutbacks at the state and local levels. It may be challenging for many districts to devote meaningful fiscal and personnel resources to fund a high degree of coordinated support.

Making the Most of LDC: Implications for Pilot Sites and Beyond

Policy makers and educators are in the beginning stages of assessing and planning for how teachers will implement the CCSS. Some school districts and even a few states have gained a head start by piloting the LDC framework in English/language arts, science, and social studies classes at the secondary level. District administrators, school leaders, and teachers have all reported that their work with LDC has not only been a rigorous experience for them, but for their students as well. Most educators in the pilot sites report using the LDC framework with great success, but it has also presented challenges. Below we offer recommendations for how districts and schools can create the conditions necessary to support and sustain the use of the LDC framework in their schools.

Recommendations

Condition 1: Creating and Sustaining District/Regional Leadership

- **Develop building-level LDC experts who can help the District and Regional POCs provide support to teachers.** In the first year of the pilot, most POCs were able to provide generous, and

in some cases, intensive support to teachers because the pilot group was small. As more teachers become involved in the second year, POCs will need assistance to support teachers' development and use of modules. Schools that had a reading coach in-house benefited from having a literacy expert in their school whom they could seek out for advice, and with whom they could co-teach lessons and review student work, among other supports. It is especially important to develop strategies for delivering direct support to teachers in schools where there are no literacy coaches. Year one LDC teachers can play important leadership roles in this effort and are doing so already in many sites.

- **District, regional, school network, and building leadership need to continue to communicate the purpose of LDC and its connection to the CCSS and existing curricula and assessments.** It is also important for leaders to monitor and quickly address teacher concerns about purpose and alignment, so that perceptions of conflict between, for example, preparation for state assessments and use of LDC do not become barriers to effective implementation.

Condition 2: Creating and Sustaining Strong School Leadership

- **Involve principals and literacy coaches in professional learning opportunities** that will focus specifically on what they need to know to champion the initiative, coordinate resources to support it, and provide teachers with feedback about their modules and their classroom instructional practices. One principal stated:

  > *I also would strongly suggest [that if this is] offered in other schools, I don't believe the principal should be left out of it. That is the biggest mistake you can make. I truly believe they [principals] have to give the full commitment and work with their staff. I think the way the money was given you needed to have central office in control, but that [should] be in addition to principals. If you don't have the principal, forget it.*

- **Cultivate teacher leaders** who will encourage their colleagues to join the initiative and offer them guidance and support as these new recruits take up the LDC framework. Scaling an initiative can be challenging, especially garnering enough buy-in so that teachers will actively engage in learning new instructional strategies and adopt new practices. Colleagues can serve as a catalyst for reluctant teachers to try something new.

- **Principals should dedicate sustained time for teachers to come together to collaborate** on developing modules, discussing student work, and exchanging instructional strategies.

Condition 3: Providing a Rich Array of Professional Learning Opportunities

- **Clearly communicate goals of the initiative and PD to teachers.** Communication of PD goals is the shared responsibility of external providers and district leaders who often provide PD for teachers.

- **Provide teachers with a range of professional learning opportunities**. Time for peer collaboration is important and especially opportunities to discuss teaching and examine student work together and for teachers to observe in other LDC participants' classrooms.

- **Provide teachers new to LDC with opportunities to develop a deep understanding of the LDC framework.** This will support both stronger implementation and the ability to develop new modules and revise existing ones to fit a given context. Such opportunities need to help teachers wrestle with the module structure and instructional ladder, including the relationships between texts, mini-tasks, and final assignments, either through a supported process of module development or through PD work with existing modules.

- **Provide PD that is responsive to teachers' needs.** Teachers need the opportunity to provide feedback about PD, both how it is meeting their needs, and additional needs and problems they would like PD to address, so that they can effectively use the tools.

Condition 4: Ensuring and Communicating Strong Alignment of LDC with the CCSS, Curricula and Assessment

- **Align module implementation with curriculum pacing guides.** In order to ease pressure teachers feel around including modules and covering their curriculum, work with teachers to include modules in their pacing guides. Teachers may not have had the opportunity to incorporate modules in their pacing guides during the pilot year because teachers were unsure of the time requirements. As more teachers become involved next year, some up front planning could ease their transition.

- **In sites where LDC alignment with state tests is a concern, district and school leaders should communicate how the modules connect to and support these priorities.** In one site, district and school leaders plan to make improvements to modules so that the alignment between the LDC framework and the state test is more apparent to teachers. As other school districts adopt LDC, leaders should make sure LDC is aligned to their state tests and make those connections very clear to teachers.

- **Continue and deepen efforts to educate practitioners about the CCSS and LDC's connection to the standards.** In many districts, teachers are just beginning to learn about the standards.

Ongoing emphasis on the CCSS and using LDC to address them is needed for LDC to reach its potential to help teachers rigorously implement the standards.

- **Support exchange across districts about which additional literacy programs and PD** are aligned with and **support implementation of LDC.** For example, teachers in several districts found that PD about approaches to teaching writing provided strategies for teaching students the skills they needed to produce the end-of-module writing assignments and for responding to student writing.

- **Share evidence of student learning as a result of LDC so alignment is clearer.** As evidence of student learning as a result of LDC becomes available, share this information widely with teachers and administrators so that they can better assess the role of modules in preparing students for assessments and better evaluate concerns about fitting modules into their curricula.

Appendix A. Survey Measures

The box below provides more detail about the contents of the survey measures for conditions and early teacher outcomes.

SURVEY MEASURES RELATED TO CONDITIONS AND EARLY OUTCOMES

CONDITIONS FOR IMPLEMENTATION

1. **District/Regional/School Network Leadership**
   While there is robust qualitative data about the central role of district/regional/school network leadership, there is no discrete survey indicator measuring this condition. The scope and importance of this indicator only became clear after the survey was constructed. In year two, RFA will add survey items to measure this condition.
2. **Strong School Leadership**
   This indicator measures the degree to which teachers report that their school-based instructional leaders have supported and been involved in the LDC initiative.
3. **Meaningful Professional Learning Opportunities**
   There are two indicators related to professional learning opportunities.

   Professional Development
   This indicator measures the degree to which teachers have been involved in LDC initiative professional development, including LDC-related professional development sessions and meetings and discussions with LDC colleagues about instruction and student work.

   Individual Supports
   This indicator measures the individually focused, often classroom-based supports teachers have received to develop and teach modules, such as classroom visits, feedback about module implementation, and opportunities to co-develop or co-implement modules with specialist teachers.
4. **Alignment with District, CCSS, and School-Level Curricula and Assessment**
   This indicator measures the degree to which teachers report LDC is aligned with, their school curriculum, helps them implement the common core state standards, and prepares students for state assessments.

EARLY OUTCOME MEASURES

1. **Teachers have necessary knowledge about tool use**
   This indicator measures the degree to which teachers feel that they have the knowledge they need to use the LDC tools well.
2. **Teacher beliefs about literacy instruction align with LDC**
   This indicator measures the extent to which teachers agree with the initiative's basic assumptions about the teaching of literacy, such as whether content area teachers should teach reading and writing.
3. **Tools impact teachers' instructional practice**
   This indicator measures the extent to which teachers feel that the LDC tools helped them adopt new literacy practices and skills, such as using formative assessment strategies, engaging students with different literacy abilities, and providing students feedback about their writing.
4. **Teachers exhibit high levels of buy-in and commitment to tools**
   This indicator measures the degree to which teachers report that they plan to revise, develop, and teach modules in school year 2011-12 and whether they are sharing modules with non-LDC colleagues and using modules strategies throughout their instruction.

Appendix B. Methodology for LDC Research

Both survey and qualitative research explored conditions for LDC implementation and early outcomes, as well as challenges and successes of program implementation.

Teacher Survey

Instrumentation and Administration

The instruments for this study were designed and developed by RFA principal investigators in conjunction with an outside consulting firm (MDF Research). The initiative's theory of action, extant literature on how changes in instructional practice occur, and RFA's early qualitative research in schools and classrooms provided the underpinnings for the independent and dependent constructs measured in the survey. These constructs included: teacher knowledge, etc.

Programming the instrument for web self-administration took place concurrently with numerous instrument revisions for content validity, logic, length, and ease of reading and use by respondents. During the revision process, the instrument items were trimmed in half from approximately 200 initial questions.

Web administration provided a number of advantages for respondents and researchers alike. After simultaneous delivery to all recipients, the survey could be accessed directly from the invitation with a clickable link; it could also be returned to as many times as the respondent found convenient. Certain questions were automatically skipped, depending on the answers given, thus reducing respondent burden. The electronic instruments contained internal checks for out-of-range data and missed questions, increasing accuracy and completeness of the final database.

Teachers' e-mail addresses were supplied by the participating schools (coverage was virtually 100%, with only two undeliverable addresses). An initial e-mail containing the recipient's unique login passcode solicited their cooperation in the study, followed by e-mail reminders to non-responders. Recipients received six e-mail reminders spaced between three and nine days apart after the first solicitation. Ninety-six teachers responded to the survey for a response rate of 71%.

Data Analysis

In addition to requesting descriptive statistics for all items, the researchers identified a number of questionnaire items that were used to develop independent and dependent "constructs." Reliability and factor analyses determined which items were most reliable and which items loaded well on distinct factors. Subsets of the items were summed to form composite scores for each construct: school leadership, participation in professional development, individual support, [2] and alignment. These composites, unlike most of the individual items, were near normal in their distributions. Using these

[2] Individual support was a valid construct for literacy only.

composites supported efficient correlation analyses between the conditions of the program and the teachers' experience of LDC. The outcome items included: teacher beliefs, teacher buy-in, teacher knowledge, and LDC impact on instructional practices. These outcome categories were generated conceptually, as opposed to statistically, because factor analysis did not produce conceptually meaningful outcome composites. Next year, with the inclusion of more teachers and a revision to the survey items, factor analysis should produce a more meaningful outcome composite.

Qualitative Data

Data Collection

During the 2010-11 school year, RFA researchers visited 4 districts and 14 schools. During our site visits, we interviewed teachers who were participating in the LDC initiative, school principals, and the district POC. Interviews explored the roles that school, district, and regional leaders played in the initiative, LDC professional development and other supports, and successes and challenges related to overall implementation and to the four conditions. In addition, teachers were asked questions about early outcomes such as their beliefs about teaching literacy, whether the LDC tools have been helpful in adopting new literacy instructional practices and their early assessment of their students' learning.

RFA also conducted classroom observations during site visits. A protocol directed the observation write-up and focused on topics including use of the module, literacy activities, rigor, and student engagement.

Research team members took notes during the interviews and, with respondent's permission, also audio-taped the interview. In some cases, interviews were transcribed. After researchers left each site, they developed an analytic memo of the site visit in an effort to capture and describe important characteristics of each site and key themes that arose as important during the visit. These memos enabled us to begin to contrast sites, and to think more deeply about how the four conditions were operating in each location and about signs of early outcomes.

RFA researchers also attended professional development sessions to observe how the PD providers framed both the modules and the expectations around their use and to gain insight into teachers' concerns and questions during the PD sessions. Researchers wrote analytic memos after each observation.

Data Analysis

In addition to the site memos and PD memos, researchers worked intensively with the interview data. Team members met to develop and refine a series of analytical codes based on the research questions and analytic memos. Once the codes were finalized, they along with all interview data were entered into Atlas.ti, which is a qualitative analysis software package. Team members coded the interview data, which is the process of applying the codes to corresponding interview text. Once the coding process

was complete, team members analyzed the data to identify themes which emerged within codes. Analysis focused on themes and their degree of strength within and across sites, as well as on contradictory themes, if they emerged. All analysis was reviewed by at least one team leader to ensure accuracy and clarity of the code analysis.

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