Scale-Up and Sustainability Study of the LDC and MDC Initiatives

Prepared by Research for Action for the Bill and Melinda Gates Foundation

September 2013

RESEARCH for ACTION

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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.

Acknowledgments

This research would not have been possible without the generous support of the Bill and Melinda Gates Foundation. We are very appreciative of the time and efforts of key players in multiple states and districts implementing the LDC and MDC tools. Principals, teachers, district leaders, and other educators graciously gave their time and openly shared their successes and challenges in using the tools on RFA survey instruments. Special thanks also goes to tool developers and professional development providers who helped form our understanding of the tools and how they can support student learning.

In addition to the authors of this report, a team of RFA staff were instrumental in both data collection and analysis. Rebecca Reumann-Moore, Mark Duffy, Kelly Piccinino, and Nancy Lawrence offered support throughout, providing guidance based on deep experience researching the LDC and MDC initiatives. Also, Christine Leow led our survey and graphics team, overseeing development, implementation, and analysis of our survey data and Elizabeth Park and Marvin Barnes were vital members of this team. Kate Shaw, RFA's executive director, provided guidance and insight throughout all phases of the research process. Our Communications Director, Alison Murawski, and our Communications Assistant, Allison Petrosky, ably coordinated many aspects of report production. Finally, we would like to acknowledge Impaq Associates, Inc., who administered the surveys and delivered survey output to RFA under tight deadlines, and Jesse Gottschalk, who carefully edited this brief.

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Executive Summary

Introduction

The Bill and Melinda Gates Foundation has invested in the development and dissemination of high-quality instructional and formative assessment tools to support teachers' incorporation of the Common Core State Standards (CCSS) into their classroom instruction. Literacy experts have developed a framework and a set of templates that teachers can use to develop content area modules focused on high quality writing tasks closely tied to subject area texts. Math experts have developed Classroom Challenges that teachers can incorporate throughout the year's curriculum. These tools were introduced and revised in multiple settings throughout the 2010-2011 co-development year; during the 2011-2012 pilot year additional sites came on board and most existing sites saw expansion.[1] The initiatives, the Literacy Design Collaborative (LDC) and the Mathematics Design Collaborative (MDC), have continued to grow in 2012-13.

For the past three years, Research for Action (RFA) has been studying the early adoption of these tools, focusing on teachers' response to and use of the tools in 2010-2011, expanding to include an analysis of the scale up of the initiative in 2011-2012 and, in 2012-13, evaluating the status of the initiative and how conditions that support robust implementation are related to scale-up and sustainability of the initiative.

This executive summary presents findings from the third year of research of the implementation, scale-up and sustainability of the LDC and MDC Initiatives. Findings presented in this report are primarily based on surveys with teachers, principals, and district administrators involved in the LDC and MDC initiatives.

We approach this report with four objectives:

- To provide a status update on the implementation of the LDC and MDC initiatives as of the 2012-13 school year;
- To examine the extent to which the conditions that support robust implementation are in place as of the 2012-13 school year;
- To present the status of scaling up the initiatives; and,

[1] Some sites also did not continue Initiative participation in Year Two.

- To understand how the supporting conditions influence the scale up of the LDC and MDC initiatives.

The overall picture is encouraging. Supports for successful implementation are more firmly established and the tools continue to be embraced by teachers, even as new schools and districts continue to be brought on board at an impressive rate. Further, we see evidence that supporting conditions have influenced scale-up of the initiative.

Data Sources and Methodology

In order to explore tool scale-up, RFA administered surveys to teachers, principals, and district administrators involved with the tools to understand the many aspects of implementation including the existence and influence of conditions which support implementation. RFA was able to gather teacher, principal, and administrator feedback on the LDC and MDC tools in 24 states. Across these 24 states, there were 261 districts represented in the survey sample. Survey data were supplemented with observations of professional development sessions and interviews with LDC and MDC district and network representatives, state-level informants, LDC and MDC professional development providers, and teachers and administrators who contributed to RFA's case study research.

Table i. Data Sources

	2012-13 Participants
SURVEY	
LDC teachers	1,801
MDC teachers	739
Principals	374
District administrators	257
INTERVIEWS[2]	
District and network representatives	15
State-level informants	22
Professional development providers	3
Case study contributors	84[2]
OBSERVATIONS	
Professional development session observations	4

[2] This number includes individual and focus group interviews conducted beyond the district, network, and, state level fall fieldwork listed. In total, 35 teachers were interviewed, 21 reading coaches, 4 principals, 22 students, and 2 district administrators.

Key Findings

Implementation of the LDC and MDC Initiatives

In 2011-2012, we found **strong evidence of robust implementation across most of our indicators. As the reach of the LDC and MDC initiatives extends in 2012-2013, we continue to see robust implementation in place.** Table ii represents the change from our previous year's findings and the current status of implementation of the LDC and MDC initiatives in the 2012-13 school year, as reported by teachers and administrators participating in the LDC and MDC initiatives.

How to interpret the following tables	
●●●	Clear evidence that the statement is true
●●	Modest evidence that the statement is true
	No evidence that the statement is true
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table ii. Robust Implementation Indicators

ROBUST IMPLEMENTATION INDICATOR	LDC		MDC	
	Change from 2011-12 to 2012-13	Current Status	Change from 2011-12 to 2012-13	Current Status
Teacher Beliefs and Knowledge				
• Teachers believe in the underlying principles of the tools	=	●●●	=	●●●
• Teachers exhibit high levels of buy-in to the initiative	=	●●●	=	●●●
• Teachers know how to use the tools	=	●●●	=	●●●
Classroom Changes				
• Teachers use tools effectively	=	●●	↑	●●●
• Students exhibit engagement during tool use	=		↓	●●
• Teachers perceive improvement in student learning	=	●●●	=	●●●

As depicted above, our survey results provide evidence that teachers believe in the utility of the tools and, for the most part, know how to use them effectively to support student learning. As the initiative has continued to scale, the strength of these beliefs has held firm from the 2011-12 to the 2012-13 school year.

Conditions Supporting Robust Implementation

There is also evidence that **a number of important conditions continue to be in place to support the initiative as it scales.** Table iii presents evidence reported by teachers, principals, and administrators involved in the initiatives on the existence of conditions which support robust implementation.

Table iii. Conditions Supporting Robust Implementation

CONDITIONS	LDC		MDC	
	Change from 2011-12 to 2012-13	Current Status	Change from 2011-12 to 2012-13	Current Status
Alignment				
• CCSS	=	●●●	=	●●●
• School curriculum	=	●●	=	●●●
• State assessments	↑	●●●	↑	●●●
Leadership				
• Schools	=	●●	=	●●
• Districts	↓		↓	●●
Professional Learning Opportunities				
• Formal professional development	=	●●●	↑	●●●
• Scheduled planning time	=	●●	↓	●●
• Collaboration	=	●●●	↑	●●●

While evidence of supporting conditions exists for many educators involved in tool development and implementation, a minority of educators are implementing the tools under less than optimum circumstances that may hinder their work.

Status of the Scaling-Up of the LDC and MDC Initiatives

There is also evidence **that tool use is expanding and becoming more embedded in teachers' instructional practice**. Table iv presents evidence from teacher surveys of two elements of scale-up—breadth and depth. It also summarizes results regarding conditions that would support the sustainability of the initiative.

Table iv. Scale-Up and Sustainability Indicator

SCALE-UP AND SUSTAINABILITY INDICATOR	LDC	MDC
Scale-UP:		
• Breadth	●●●	●●●
• Depth	●●●	●●●
Sustainability:		
• Leadership endorsement	●●	●●●
• Long-term viability	●●	●●

While there is strong evidence of scale-up, the findings are more mixed when considering the sustainability of the initiative. Leadership is generally supportive, but they have not demonstrated movement toward long-term financial viability as few school leaders report playing a role in finding additional funding and reallocating funds to the LDC and MDC initiatives.

Supporting Conditions Influence LDC and MDC Scale-Up

Survey findings provide evidence that **supporting conditions are strongly related to scale-up of the LDC and MDC initiatives**. Table v presents an overview of how supporting conditions influence LDC and MDC scale-up.

Table v. Supporting Conditions and How They Relate to Scale-Up in Terms of Breadth and Depth

How to interpret this table	
●●●●	A strong relationship
●●●	More modest but still positive relationships
●●	Very modest but positive relationships
	No relationship

CONDITIONS	BREADTH	DEPTH
Alignment		
• CCSS	●●●●	●●●●
• School curriculum	●●●●	●●●●
• State Assessments	●●●●	●●●●
Leadership		
• Schools	●●●	●●●
• Districts	●●●	●●●
Professional Learning Opportunities		
• Formal Professional Development		●●●

CONDITIONS	BREADTH	DEPTH
• Scheduled Planning Time		●●●
• Collaboration	●●●●	●●●●

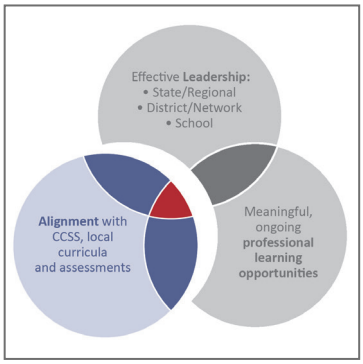
Overall, the supporting conditions appear to influence the extent to which teachers embrace the tools and more educators are involved in the initiatives. Our findings reveal that alignment has the strongest positive relationship to scale-up of the tools. Strong leadership, tied to alignment in many ways, follows. Professional learning opportunities emerge as the least influential supporting condition overall. Yet collaboration, an essential for professional learning among educators, notably supports scale-up.

Recommendations to Ensure Supportive Conditions for Scale-up

Our research findings on the conditions for successful scale-up and sustainability suggest a number of recommendations that can help inform decisions regarding continuing and expanding use of the tools. (See Appendix E for summary table.) We offer these recommendations for consideration by key stakeholders seeking to further develop LDC and MDC tool use as an avenue to support teachers in their efforts to improve their practice. At the same time, tool use and improvements in practice can support students in attaining the Common Core State Standards, and becoming more college and career ready. The recommendations presented below are organized by the supporting conditions.

Alignment

Encourage Common Core aligned instruction in classrooms and clearly articulate its connection to state and local policies.



- Our research shows that broader and deeper use of the LDC and MDC tools is most likely to happen when teachers believe that the tools are aligned with the CCSS. Efforts should be made by administrators across all levels to make the connection between tool use and the CCSSs, explaining how robust implementation of the tools is a means for teachers to move students toward achievement of the CCSSs. This can be further reinforced by making explicit the connections between implementation of the tools and other state and local policies, such as state assessments and teacher evaluation.

Address alignment between tools and state assessment and accountability systems.

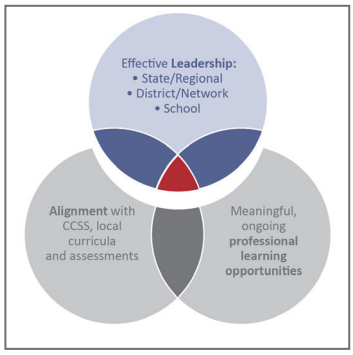
- While high percentages of teachers and administrators agreed that the tools are aligned with the CCSS, fewer agreed that the tools are aligned with state assessments as most states have not made the transition to strictly covering CCSS content. This is especially problematic as teachers and administrators are often held accountable for their students' performance on state assessments, regardless of the lack of alignment between the tests and the CCSS. Working toward an assessment system in which students are evaluated on the CCSS and, correspondingly, teachers are held accountable based on their students' progress, is likely to lead to more success in tool implementation and scale-up and sustainability of the tools.

Coordinate tool implementation and scale-up with existing curricula.

- A struggle for educators in successfully implementing the tools is incorporating them into the required curriculum. District administrators can play a vital role in facilitating tool use by ensuring that teachers understand: the purposes of the tools; how the tools should work hand-in-hand with the curriculum; and, where best to place the tools in the overall pacing of instruction.

Leadership

Include principals and other school-based leaders in the work of scaling the tools.



- To achieve the alignment that enables the successful use of the tools, principals can play a substantive role in creating the environments that foster effective teacher practice. Principals can support tool implementation by taking an active role as "instructional leaders" in their schools, either working directly with teachers on tool implementation, or empowering talented personnel (i.e., coaches, lead teachers) to guide teachers' practice. Principals can also help to ensure that teachers have the necessary time to work together to implement the tools.

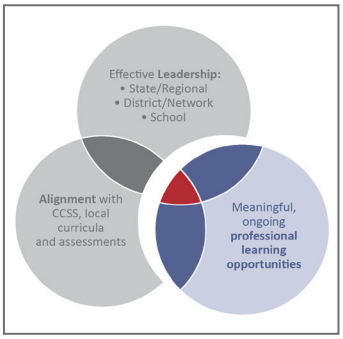
Ensure a strong district/network staffing and coordination strategy for scale-up.

- Over three years of research on this initiative, district staff has played a central role in supporting the implementation and scale-up of the tools. Our most recent research reveals that district leadership is especially important for scaling the LDC initiative. In addition to providing support to teachers in the form of professional development, allowing time for collaboration, and providing ongoing technical assistance, district staff are also in a position to plan for the future (i.e., identifying financial support for the initiatives).

Look for opportunities to increase regional and state capacity.

- As the use of the LDC and MDC tools is scaled across the country, states can learn from each other about the strategies they are using in increasing the breadth of implementation at the state and regional levels. For example, approaches to tool implementation and scale-up include: developing cadres of state-based professional development and technical assistance providers; involving the state education agency in both the implementation process and plans for current and future use of the tools; and leveraging regional education service centers as a resource to provide training and ongoing support.

Professional Learning Opportunities



Ensure that professional development is delivered in ways that are most accessible to teachers.

- A higher percentage of both LDC and MDC teachers reported participating in small group meetings than any other mode of delivery. This is good news as high percentages of teachers also rate this form of professional learning opportunity as effective. As additional trainings are planned, efforts should be made to incorporate similar smaller scale or personalized professional development. This is particularly important for LDC teachers and administrators.

Provide training that addresses the challenges educators face in implementing the tools.

- The training currently being provided does not address all the challenges faced by teachers and school leaders as they implement the tools. Differentiating instruction, including working with ELL, special education, and struggling students, was identified as an area worthy of more attention by both LDC and MDC teachers and administrators. As the tools are scaled, the content of training should match the needs of educators to ensure proper implementation resulting in improved student learning outcomes for all students.

Ensure ongoing opportunities for collaboration with peers.

- Our research provides evidence that, while collaboration is an essential component in implementing and scaling the tools, many teachers do not have regular time together to discuss tool development and implementation. Principals and district leaders should support teachers in scheduling time to work together as they learn to use the tools and continue to refine their practice.

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Chapter 1: Introduction

The LDC and MDC Initiatives

To support the implementation of the Common Core State Standards (CCSS), the Bill and Melinda Gates Foundation invested in the development and dissemination of two tools aimed at operationalizing classroom instruction based on the standards: the Literacy Design Collaborative (LDC) Framework and the Mathematics Design Collaborative (MDC) Classroom Challenges. These tools stress teachers' attention to high-quality instructional tasks (City, Elmore, Fiarman & Teitel, 2010; Hiebert & Carpenter, 1992; Hiebert & Wearne, 1993; Jones, Valdez, Nowakowski & Rasmussen, 1994), use of formative assessments embedded in those tasks (Black, Harrison, Lee, Marshall & Wiliam, 2004; Clarke & Shinn, 2004; Fuchs, 2004; Tunstall, 1996), and professional learning opportunities that focus on both content knowledge and instruction (Birman, Desimone, Porter & Garet, 2000; Cohen & Hill, 1997; Kennedy, 1998).

Research for Action (RFA) began examining the implementation of this initiative in its pilot year - Year One (2010-2011) - and has continued this research over the past two years - Years Two and Three (2011-2012 and 2012-13), in which use of the tools has expanded considerably.

Focus of this Report

Findings presented in this report are primarily based on surveys with teachers, principals and district administrators involved in the LDC/MDC initiatives. We approach this report with four objectives:

- To provide a status update on the implementation of the LDC and MDC initiatives for the 2012-13 school year;
- To examine the extent to which the conditions that support robust implementation are in place in the 2012-13 school year;
- To present the status of the scaling up of the initiatives; and,

Current Status of LDC and MDC Initiatives

As states and districts explore strategies for the implementation of the Common Core State Standards (CCSS), the Literacy Design and Math Design Collaborative tools have become important resources in a number of different ways. In the fall of 2010, these tools were piloted in a handful of districts and schools to test the waters of implementation. Now, educators in about half of the states across hundreds of districts and networks have become involved with the tools. The degree and pace of tool implementation has varied, but is expanding nonetheless. For example, while the Kentucky Department of Education expects the tools to be used statewide as a predominant strategy to address the CCSS, in Florida tool use grew to six new districts during 2012-13 based on the pilot work done in Hillsborough County Public Schools that had started two years before.

While school and district leadership has taken a central role in tool implementation and scale-up of the tools, leadership has become the charge of state departments of education and their partner organizations, such as the Colorado Legacy Foundation and the National Literacy Project, as well. Regional education service centers, like the Intermediate Units in Pennsylvania, have become key players in the scale-up of and training in the tools in some states, and taken on increasing responsibilities as states, districts, and schools take increasing ownership of the tools and external professional development providers play less intensive roles. However, local stakeholders continue to play leadership roles, with districts developing their own strategies for scale-up in their schools, determining the extent of tool use and timeline for implementation, and teachers with experience in tool use becoming trainers for those new to the initiative.

At the same time, national and regional partner groups, such as Math Solutions, Paidea, the New Tech Network, the Southern Regional Education Board, and many others, have provided training and support to teachers and districts as the tools have been implemented and scaled; the developers of the LDC modules have formed an independent organization to continue the work they started with support from the Gates Foundation. All of this takes place in the policy context of ever-changing assessments, expanding teacher evaluation systems, and additional curricular tools to address the CCSS.

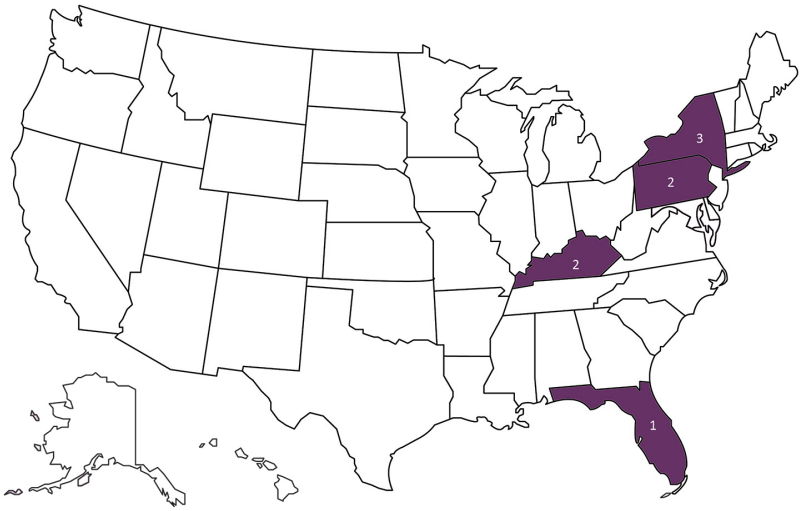
- To understand how the supporting conditions influence the scale-up of the LDC and MDC initiatives.

The overall picture is encouraging. The tools continue to be embraced by teachers as new schools and districts are brought on board; and supports for successful implementation are more firmly established.

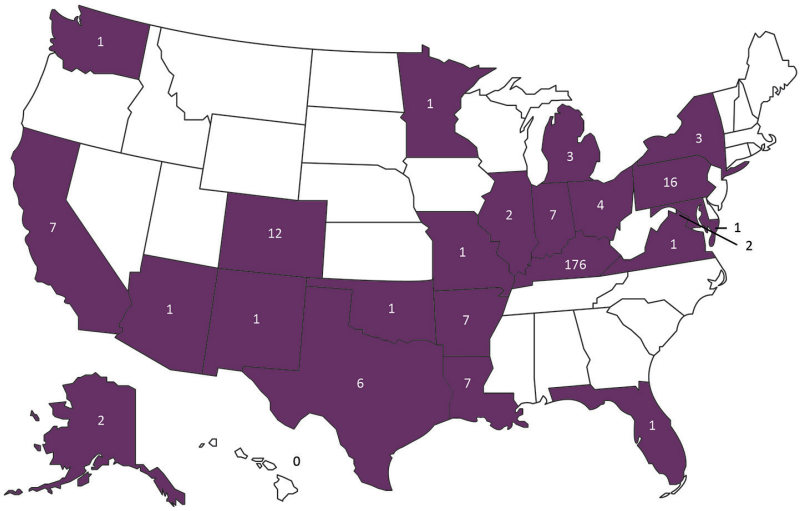
Data Sources and Methodology

In order to explore the universe of tool scale-up, Research for Action administered surveys to teachers, principals, and district administrators involved with the tools to understand the many aspects of implementation. RFA was able to gather teacher, principal, and administrator feedback on the LDC and MDC tools in 24 states. Across these 24 states, 261 districts are represented in the survey sample. As evidenced in Figure 2, this year's data collection was significantly more extensive than the previous year's when the survey covered just 4 states and 8 districts (see Figure 1).

Figures 1 and 2. Survey Respondents in 2011-12 and 2012-13



Survey Respondents: 2011-12



Survey Respondents: 2012-13

Survey data were supplemented with observations of professional development sessions and interviews with LDC and MDC district and network representatives, state-level informants, LDC and MDC professional development providers, and case study contributors (see Table 1).

Table 1. Data Sources

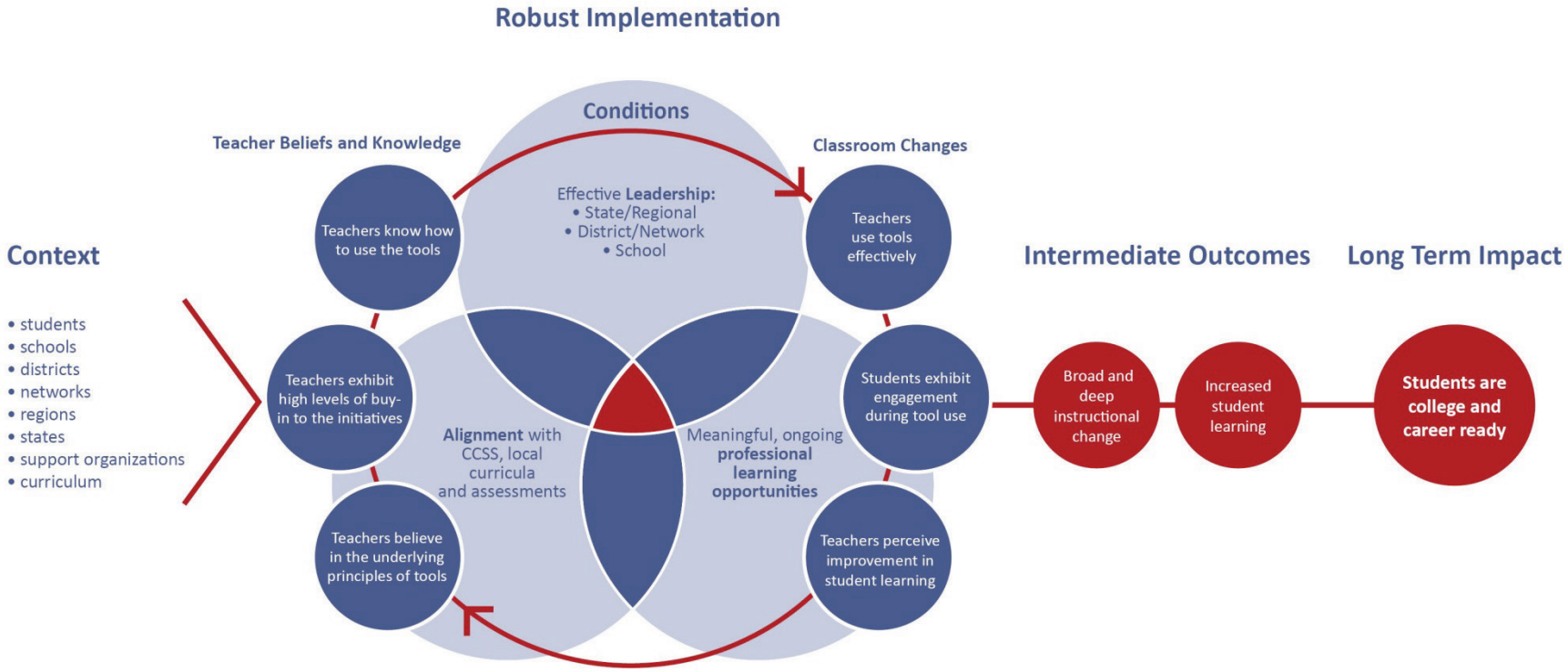
	2010-11 Participants	2011-12 Participants	2012-13 Participants
SURVEY			
LDC teachers	116	240	1,801
MDC teachers	82	96	739
Principals	N/A	65	374
District administrators	N/A	75	257
INTERVIEWS			
District and network representatives	15	20	15
State-level informants	5	15	22
Professional development providers	7	4	3
Principals	29	26	N/A
Teachers	121	120	N/A
Case study contributors[3]	N/A	N/A	84
OBSERVATIONS			
Professional development session observations	15	9	4
Classroom Observations	37	65	N/A

[3] This number includes individual and focus group interviews conducted beyond District/Network-level, State-level fall fieldwork listed. In total, 35 teachers were interviewed, 21 Reading Coaches, 4 Principals, 22 Students, and 2 District Administrators.

Theory of Action

The Theory of Action, created by RFA in our second year of research, depicts the underlying assumptions and conditions on which the LDC and MDC initiatives are based. The Theory of Action is presented below in Figure 3. Each element is then described briefly.

Figure 3.Theory of Action



Context

Although individual teachers use the tools in a classroom setting, contextual factors influence their use. The Theory of Action identifies broad categories of such contextual factors, including students, schools, districts, networks, regions, states, support organizations, and curriculum.

Indicators of Robust Implementation

The six indicators of robust implementation circling the conditions in the center of the Theory of Action represent the use of the tools in the classroom, and the changes expected in teacher practice and student behavior as the tools are implemented. Robust implementation is manifested in two main arenas: Teacher Beliefs and Knowledge, and Classroom Changes. Each indicator is described in Tables 2 and 3.

Table 2. Indicators of Robust Implementation: Teacher Beliefs and Knowledge

Robust Implementation Indicator	Definition
Teachers believe in the underlying principles of tools	**LDC:** Traditionally, elementary English or Language Arts classes are responsible for teaching literacy. As secondary content-area teachers begin to include literacy instruction in their courses by using LDC, it is important for them to believe that literacy instruction is a valid and worthwhile responsibility. **MDC:** The use of the Classroom Challenges requires teachers to adjust their math instruction to teach in fundamentally different ways than most teachers traditionally teach math. New approaches to instruction include the constant facilitation and assessment of student learning as opposed to providing direct instruction, and allowing students to struggle to develop their own conceptual understandings of mathematics.
Teachers exhibit high levels of buy-in to the initiatives	Teacher buy-in to instructional and curricular initiatives is central to the success of any new reform. Teachers need to believe that the initiative itself and its supporting structures will provide them with the tools to help their students achieve at higher levels.
Teachers know how to use the tools	**LDC:** Successful use of the LDC Framework requires a strong understanding of how to develop and use the Framework, including mini-tasks and the instructional ladder. **MDC:** Successful use of the Classroom Challenges requires a strong understanding of how to place the Lessons in the larger math units and discern and respond to students' mathematical misconceptions.

Table 3. Indicators of Robust Implementation: Classroom Changes

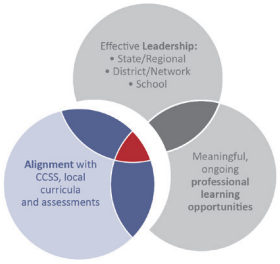
Robust Implementation Indicator	Definition
	Once teachers know how to build and use the tools, they need to execute new pedagogical methods in ways that change instructional practice.
	Students must be responsive to, and engaged by, the new instructional practices in order for the initiative to achieve its goal of improved student learning.
	Teachers need to perceive improvement in student learning as a result of tool use.

Conditions for Success

The three overlapping Conditions represent the web of organizational, policy, and professional learning supports necessary for implementing, sustaining, and growing the use of the tools. These conditions were first described in RFA's 2011 reports on tool implementation, and have been revised to include the broader array of leadership necessary for more intensive initiative scale-up.[4] The three Conditions discussed in this year's reports are presented in Table 4.

[4] The September 2011 RFA reports entitled *Establishing a Strong Foundation* (LDC and MDC), included four conditions: 1) robust district, regional, school network leadership, 2) strong school leadership, 3) meaningful PLOs and 4) alignment with the CCSS, curricula and assessment.

Table 4. Description of Conditions

	**Alignment:** In order for the reform to be successful, it needs to be in alignment with other policies and initiatives taking place in the state, district, and school where the reform is being implemented. If initiatives and policies are at cross-purposes, it becomes difficult to progress in any one direction. Because the LDC and MDC tools were designed to align with the CCSS, alignment with these standards, as well as with other local curricula, and state and local assessments, is important to successful implementation and scale-up of the tools.
	**Effective Leadership:** Effective leaders at all levels, including the state, region, district/network, and school, need to champion the initiative, provide needed resources and training, and help teachers understand how it fits into an overall plan for educational improvement.
	**Professional Learning Opportunities (PLOs):** Teachers and leaders need meaningful and ongoing professional development and technical assistance to understand the purpose of the tools, how to implement them in the classroom, and refine their practice as they move forward. Along with formal professional development sessions, this work also includes more informal work between colleagues in the school setting on a regular basis.

Organization of the Report

The remainder of this report is an exploration of the sustainability and scale-up of the LDC and MDC initiatives. It builds on prior research investigating the components of the Theory of Action presented above.

Chapter 2: Implementation of the LDC and MDC Initiatives. Chapter 2 provides a brief overview of the LDC and MDC initiatives, followed by a status update organized around indicators of "robust implementation" related to Teacher Beliefs and Knowledge and Classroom Changes.

Chapter 3: Conditions Supporting Robust Implementation. Following in the same vein, Chapter 3 examines the extent to which "supporting conditions" that have been identified as necessary for "robust implementation" are in place. These conditions include: Alignment, Leadership, and PLOs.

Chapter 4: Status of the Scaling-Up of the LDC and MDC Initiatives. In Chapter 4, we investigate scale-up and describe the extent to which the initiatives have grown over the past year. We also consider signs that the initiatives will continue on this path.

Chapter 5: Supporting Conditions Influence LDC and MDC Scale-Up. The Theory of Action is tested as it applies to the initiative taking hold and expanding, both broadly and deeply. Specifically, we look at the "supporting conditions" and evaluate the extent to which each condition is related to: expansion of tool use by individual teachers, schools, and districts; and, how it is informing teacher practice outside of tool use.

Chapter 6: Conclusions and Recommendations. In the final chapter, we draw conclusions regarding sustainability and scale-up of the tools, and make some recommendations for future areas of focus and inquiry on the LDC and MDC initiatives.

Chapter 2: Implementation of the LDC and MDC Initiatives

After a brief overview of LDC and MDC design and implementation, Chapter 2 answers our research question: "To what extent does 'robust implementation' of the initiatives exist?" We consider six indicators of teacher beliefs, knowledge, and practice.

As the Theory of Action depicts, when the conditions to support tool use are in place, robust implementation is evident in Teacher Beliefs and Knowledge, and in Classroom Changes. In 2011-12, we found strong evidence of robust implementation across most of our indicators. As the initiative scales up, is the quality of implementation holding? To answer this question, this chapter compares 2011-12 survey results to those of a much larger sample in 2012-13; and then provides a more detailed analysis of robust implementation for 2012-13.

To a large degree, the news is good—even as the initiative expands, teacher survey responses indicate levels of robust implementation that are similar to 2011-12.

DESIGN AND IMPLEMENTATION OF THE LDC AND MDC INITIATIVES

LDC OVERVIEW

Experts from the Literacy Design Collaborative (LDC) developed a **framework** to facilitate CCSS-based student literacy and content learning. English Language Arts (ELA), social studies, and science teachers use **templates** to create customized writing tasks for their students. 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.

MDC OVERVIEW

Developed by the Shell Centre, the **Classroom Challenges** consist of four interdependent activities: pre-assessment, collaborative activity, whole-class/plenary discussion, and post-assessment.

- The **pre-assessment** is a short (10-15 minute) task administered to students individually at the start of each Classroom Challenge and designed to reveal students' understanding and misunderstandings of key mathematical concepts. The pre-assessments are reviewed, but not scored, by the teacher.
- The **collaborative activity** consists of 2-3 students engaging in a complex and hands-on mathematical activity with the intent that some students will "productively struggle" with the material but there will be access points for all students. During small group work, the teacher moves around the room, listening, asking questions, but not providing answers.
- The **whole class/plenary discussion** brings the class back together so students can share and discuss their groups' strategies, thinking, and resolutions.

The **post-assessment** is given to students at the close of the Classroom Challenges to check for understanding.

Appendix B provides an overview of the LDC modules and MDC Classroom Challenges, including: the expected duration of each in a classroom; at what point in time they are supposed to be utilized by teachers in their unit or curriculum; the teacher and student roles; who developed the tools; and, the similarities and differences between the tools.

Next, we summarize our findings for each indicator of robust implementation by first comparing results of 2012-13 with those of last year; and then by providing more detailed information about each.

1. Teacher Beliefs and Knowledge

In order for teachers to successfully use the LDC modules or the MDC Classroom Challenges to increase student learning, they need to have a strong understanding of the underlying principles of the tools, exhibit buy-in, and know how to use the tools.

A. Change in Beliefs and Knowledge: 2011-12 to 2012-13

In 2011-2012, we found strong evidence that teachers endorsed beliefs that underlie both the MDC and LDC initiatives, and a large percentage of both LDC and MDC teachers reported that they understood the tools. In 2012-2013, these general patterns hold. Table 5 summarizes this comparison. For the columns labeled 2011-12 and 2012-13, we provide the percent of respondents who agreed with the corresponding survey questions that map to the three indicators of robust implementation and fall under Teacher Beliefs and Knowledge. The Change column employs three symbols to capture the degree to which responses changed when compared with last year.

How to interpret this table	
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table 5. Indicators of Robust Implementation and Examples of Evidence: 2011-12 and 2012-13

Robust Implementation Indicator	Evidence	2011-12	2012-13	Change
Teachers believe in the underlying principles of tools	**LDC teachers and administrators believe:**			
	• All teachers should help students improve literacy skills	**98%**	**98%**	=
	• Writing assignments can help students understand important concepts	**96%**	**98%**	=
	MDC teachers and administrators believe that an effective way to strengthen students' mathematical understanding is:			
	• For teachers to take on the role of coach	**98%**	**98%**	=
	• Peer-to-peer problem solving	**99%**	**98%**	=
	• To ask students guiding questions	**100%**	**99%**	=
	• To provide time for students to persevere through difficult math problem	**97%**	**98%**	=

Robust Implementation Indicator	Evidence	2011-12	2012-13	Change
Teachers exhibit high levels of buy-in to the initiatives	**LDC teachers believe:**			
	• Tools are an important part of instructional practice	**75%**	**68%**	=
	• Formative assessment is useful in identifying students' strengths and weaknesses	**76%**	**84%**	=
	MDC teachers believe:			
	• Tools are an important part of instructional practice	**71%**	**75%**	=
	• Formative assessment is useful in identifying students' strengths and weaknesses	**95%**	**94%**	=
Teachers know how to use the tools	**LDC teachers:**			
	• Know how to use the tools	**93%**	**91%**	=
	• Are using the tools as intended	**84%**	**83%**	=
	MDC teachers:			
	• Know how to use the tools	**87%**	**93%**	=

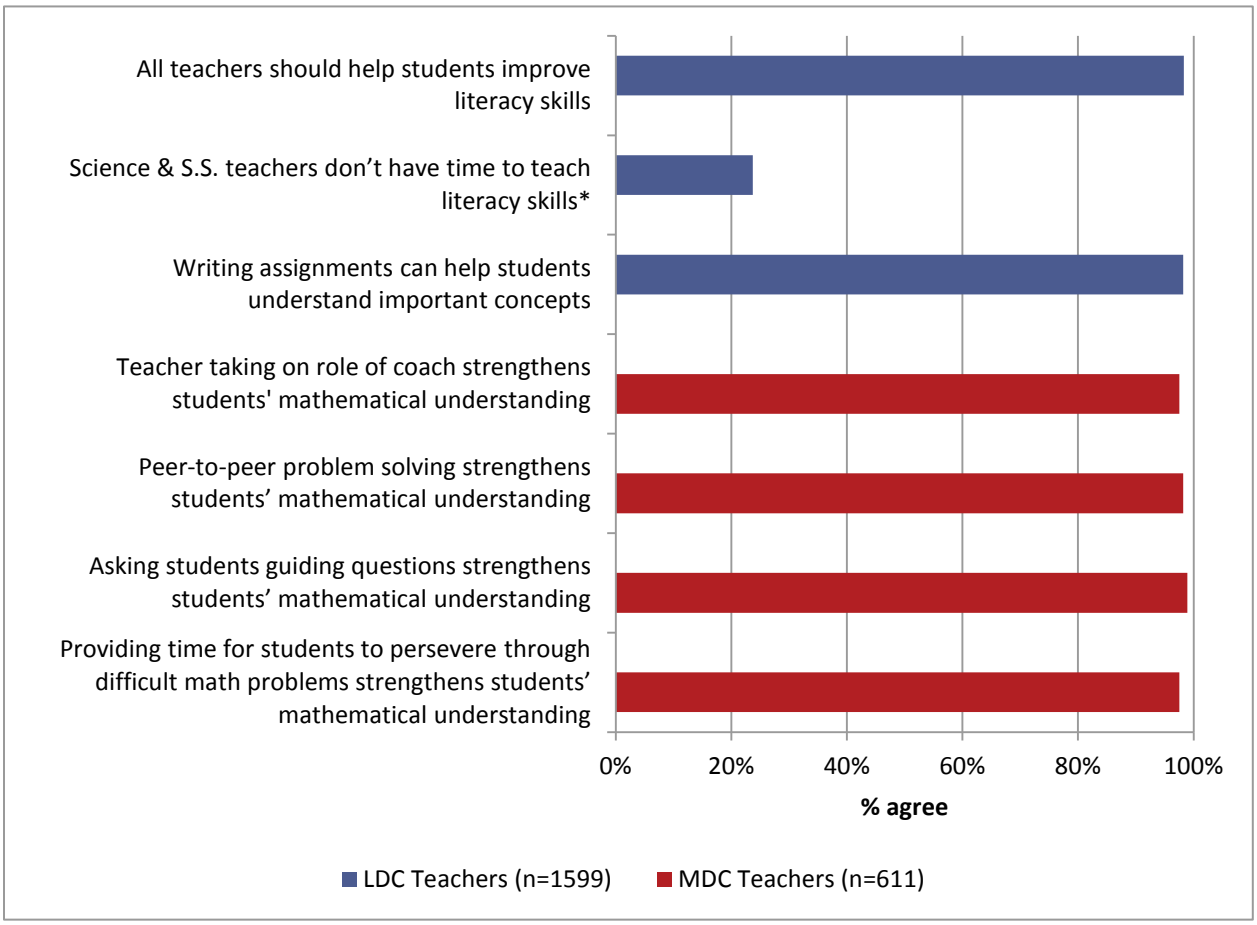
B. 2012-13 Results

All figures that follow in this chapter draw on data from the 2012-13 year of LDC and MDC implementation.

Indicator 1. Teachers believe in the underlying principles of the tools.

We asked LDC and MDC teachers to indicate their agreement with a range of principles and pedagogical approaches associated with the tools. Figure 4 presents their responses.

Figure 4. Teachers Believe in the Underlying Principles of the Tools



** Seventy-six percent (76%) of responding LDC teachers disagreed that science and social studies teachers don't have time to teach literacy skills, but to stay consistent with the other indicators, we report that 24% of responding LDC teachers agreed that science and social studies teachers don't have time to teach literacy skills instead.*

LDC and MDC teachers reported nearly unanimous belief in the principles and pedagogical approaches central to LDC and MDC.

- LDC teachers reported overwhelming agreement that ALL teachers, including science and social studies teachers, should help students improve literacy skills.
- Just over a quarter of LDC teachers reported agreement that science and social studies teachers don't have time to teach literacy skills.*

*The second bar on this chart indicates that 26% of LDC teachers agree/74% disagree that science and social studies teachers don't have time to teach literacy skills. This item reveals a long-standing tension felt by some science and social studies teachers. Our qualitative research suggests that one of the underlying principles of the LDC tools, that ALL teachers should help students improve literacy skills, conflicts with the reality that some content-area teachers (science and social studies) do not view themselves as responsible for encouraging literacy skills in their classrooms.

Although surveys results showed that MDC teachers strongly agreed with the underlying beliefs related to 'teacher taking on the role of coach' and 'peer to peer problem-solving,' an MDC Professional Development provider explained, *the biggest challenge in these classroom lessons is less about learning the curriculum but getting teachers to know and believe that their students can engage and learn in that capacity, and getting to help them to do this. If you have been a*

teacher that has mostly lectured and given direct instruction, and most of the teaching that you've been doing is by demonstrating procedural knowledge, then you have a belief system oftentimes that kids can't learn by themselves, they can't do higher level thinking, that their conversations will not be rich, that kids will not persevere, that kids will wait. And a lot of that is about expectations, and also communicating to the kids themselves that they have responsibilities for learning.

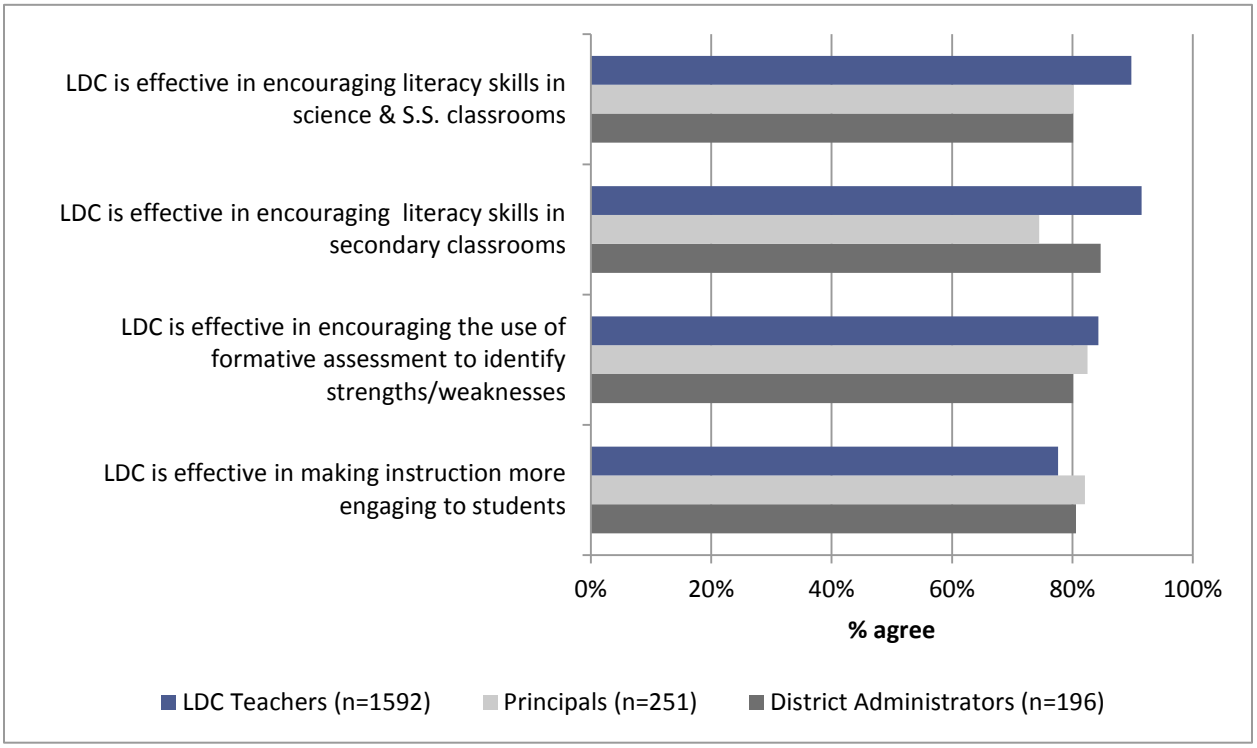
Indicator 2. Teachers exhibit high levels of buy-in to the initiative.

We assessed the degree of teacher, principal, and district administrator buy-in by asking them to assess the tools' value, and their importance in supporting the curriculum.

i. Value of the Tools

Figure 5 summarizes our findings of ways in which LDC teachers and administrators see the effectiveness of the tools.

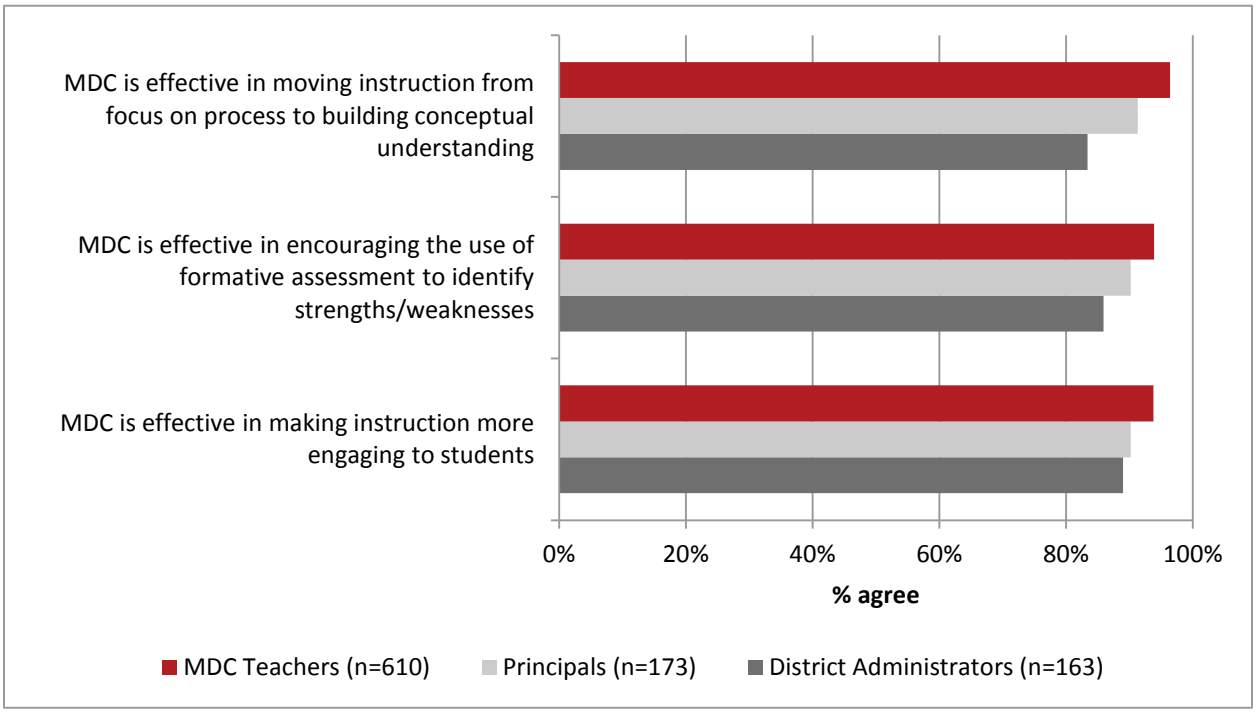
Figure 5. LDC Teachers, Principals, and Administrators Find the Tools Valuable



- There is strong agreement among LDC teachers, principals, and district administrators that the LDC tools are valuable.
- LDC teachers were generally the most positive of the three groups.
- Over 90% of teachers agreed that the LDC tools encourage literacy in science and social studies classrooms or secondary classrooms.

Figure 6 summarizes findings about the ways in which MDC teachers, principal, and district administrators see the MDC tools as being effective.

Figure 6. MDC Teachers, Principals, and Administrators Find the Tools Valuable

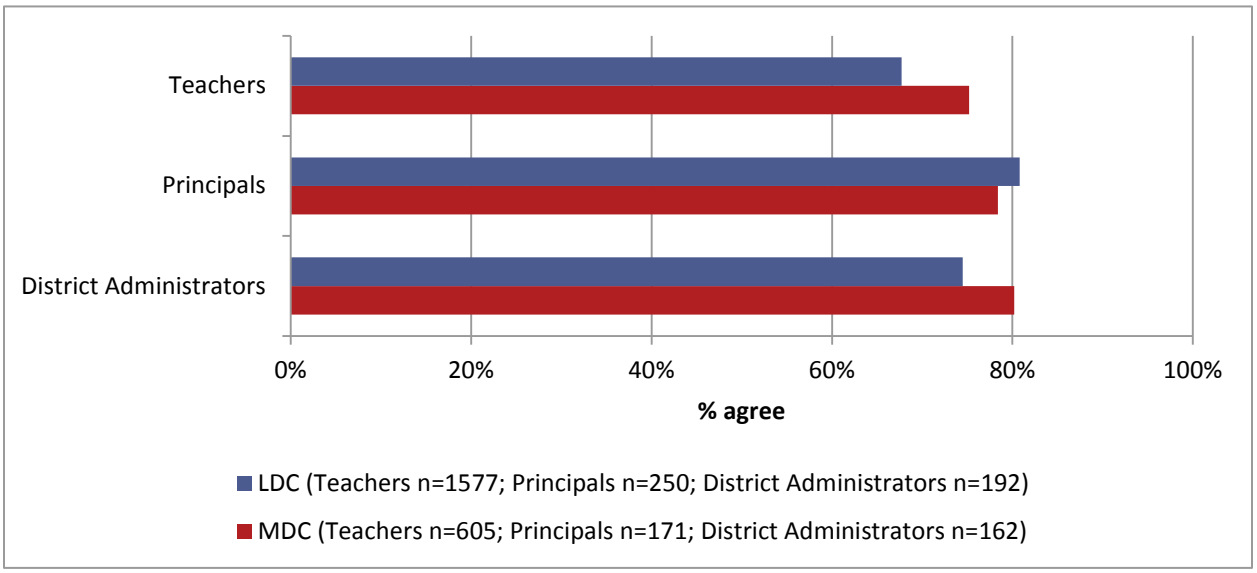


- Over 80% of teachers, principals and district administrators reported finding the MDC tools valuable.
- An overwhelming majority of MDC teachers reported that they believed the MDC Classroom Challenges were effective in encouraging teachers to adjust their practice to focus on the pedagogical approaches central to MDC.
- Teachers were consistently the most positive of the three groups; district administrators the least so.

ii. Importance of Tools to Curriculum and Instructional Practice

Figure 7 reports on the beliefs of teachers, principals, and district administrators that the tools are an important part of instructional practice and the overall curriculum.

Figure 7. The Tools are an Important Part of Instructional Practice and Overall Curriculum

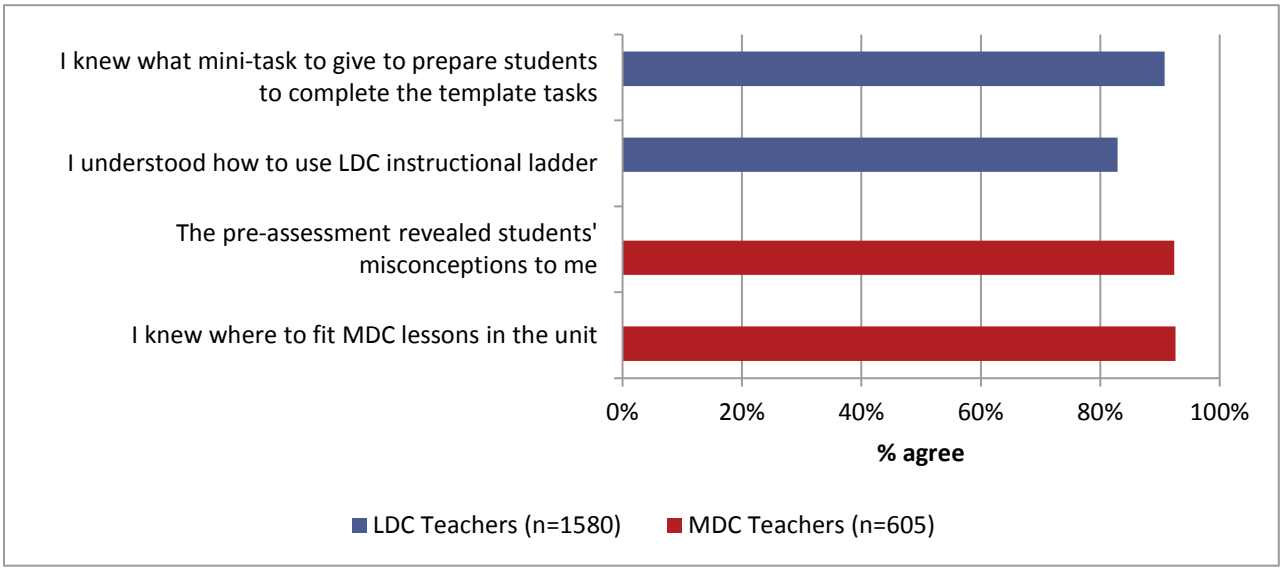


- At least 70% of all teachers, principals, and district administrators agreed that the tools were an important component of instruction and curriculum.
- Principals and district administrators agreed in slightly higher percentages than did teachers.

Indicator 3. Teachers know how to use the tools.

We asked teachers a set of slightly more detailed questions to determine if they understood particular aspects of successful tool use. Figure 8 lays out some ways in which LDC and MDC teachers reveal understanding of using the tools.

Figure 8. Teachers Know How to Use the Tools

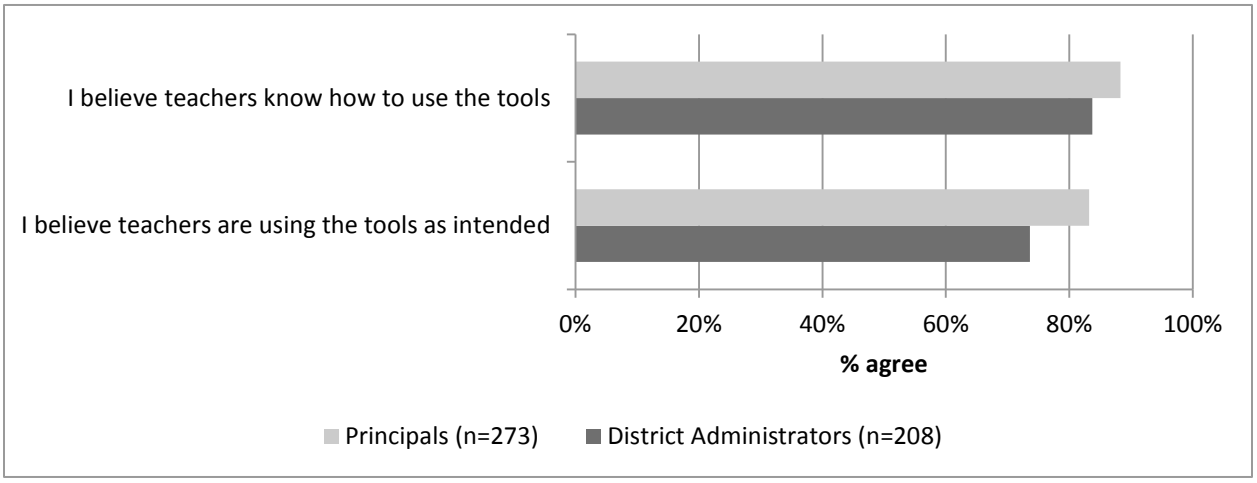


- More than 80% of all teachers reported understanding how to use particular aspects of the tools.
- The LDC instructional ladder was reported to be understood by about 10% fewer teachers than was the case in other categories of tool use.

Over the course of the initiative, some MDC changes were made to better orient MDC teachers in how best to use the pre-assessments to inform the Lessons. A Professional Development Provider explained that *one thing that jumped out the most to me that they didn't have in the earliest versions but have now been doing for many of the alpha and all of the beta versions, is that they created this chart of what they call common issues and suggested prompts and questions that teachers can use. It's a chart that comes on the third page of the teacher notes that is specific to the task, that the original tasks did not have. And to me that was probably the most significant addition, because what it lent itself is having teachers really have a nice tool to use the pre-assessment to prepare for teaching the lesson itself. So this way, the lesson is based on or can be adapted to what the students did on their pre-assessment, and allows them to tailor the unit directly to the class.*

To corroborate what teachers told us, we asked district administrators and principals if they thought teachers know how to use the tools (see Figure 9).

Figure 9. School and District Leaders Believe that Teachers Know How to Use the Tools



- A very strong majority of both principals and district administrators agreed that teachers knew how to use the tools, and that they were being used as intended.
- Principals reported teacher knowledge of tool use more frequently than did district administrators.
- A smaller percentage of district administrators than principals reported that teachers were using the tools as intended.

2. Classroom Changes

Table 6 presents evidence of the robust implementation indicators associated with classroom changes. The indicators help to illustrate teacher perceptions of whether they know how to use the tools effectively, if students exhibit engagement during tool use, and if teachers perceive improvement in student learning.

A. Change in Classroom Changes: 2011-12 to 2012-13

In 2011-12, we found strong evidence that teachers were making the classroom changes associated with both the MDC and LDC initiatives; a large percentage of both LDC and MDC teachers reported that they understood how to use the tools effectively, how to engage students during tool use, and how to improve student learning. In 2012-2013, these general patterns hold. Table 6 summarizes this comparison.

For the column labeled 2011-12, we provide the percent of respondents who agreed with the corresponding survey questions that map to the three indicators of robust implementation and fall under Classroom changes. The Change column employs three symbols to capture the degree to which responses changed when compared with last year.

How to interpret this table	
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table 6. Indicators of Robust Implementation and Examples of Evidence: 2011-12 and 2012-13

Robust Implementation Indicator	Evidence	2011-12	2012-13	Change
Teachers use tools effectively	**LDC teachers reported using the tools effectively to:**			
	• Find effective teaching strategies	**69%**	**72%**	=
	• Include formative assessment in class	**59%**	**66%**	=
	• Provide students with more detailed feedback about strengths and weaknesses	**66%**	**83%**	↑
	MDC teachers reported using the tools effectively to:			
	• Find effective teaching strategies	**78%**	**88%**	↑
	• Include formative assessment in class	**76%**	**87%**	↑
	• Provide students with more detailed feedback about strengths and weaknesses	**77%**	**72%**	=
	LDC teachers reported more challenges in differentiating instruction for:			
	• ELL students	**54%**	**60%**	=
	• Special education students	**55%**	**68%**	↑
	MDC teachers reported more challenges in differentiating instruction for:			
	• ELL students	**70%**	**65%**	=
	• Special education students	**74%**	**73%**	=
Students exhibit engagement during tool use	**Teachers and administrators reported that they perceived the tools to help better engage students:**			
	• LDC	**29%**	**26%**	=
	• MDC	**62%**	**48%**	↓
Teachers perceive improvement in student learning	**LDC teachers reported that the tools:**			
	• Have resulted in higher quality writing	**80%**	**79%**	=
	• Supported student college readiness	**81%**	**87%**	=
	• Helped prepare students for current assessments	**68%**	**75%**	=
	MDC teachers reported that the tools:			
	• Have resulted in improved math reasoning	**83%**	**89%**	=
	• Supported student college readiness	**79%**	**86%**	=
	• Helped prepare students for current assessments	**82%**	**81%**	=

2012-13 Results

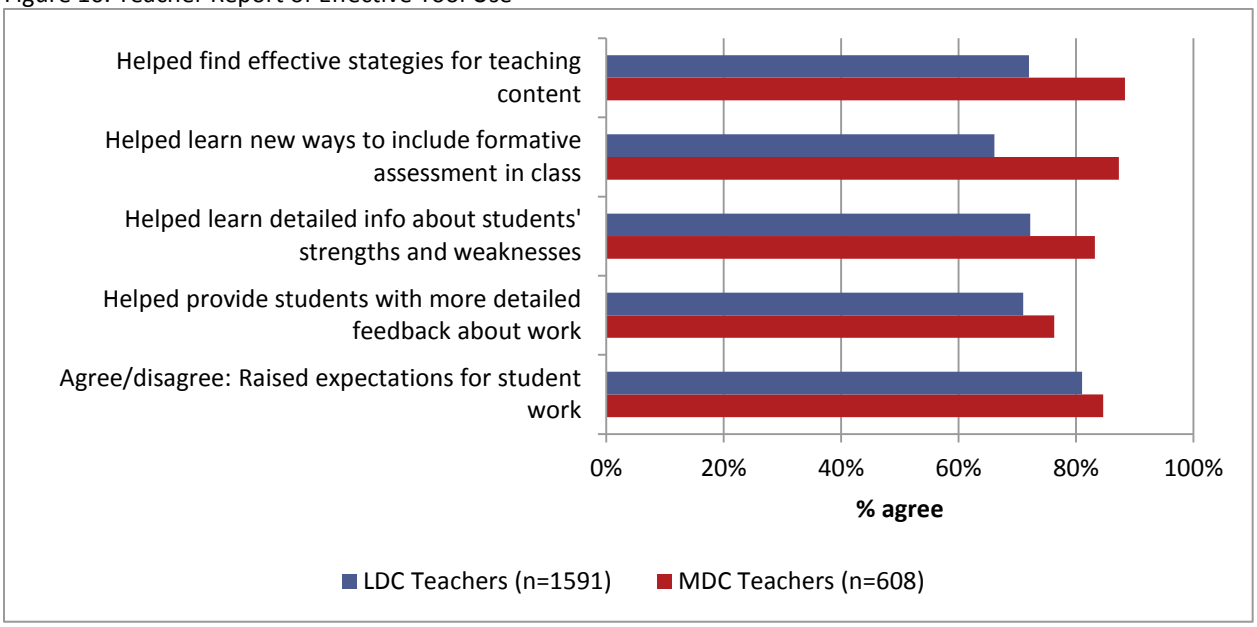
All figures that follow in this section draw on data from the 2012-13 year of LDC and MDC implementation. We asked LDC and MDC teachers about specific tool use strategies.

Indicator 1. Teachers used the tools effectively.

i. Teacher Report of Effective Tool Use

Figure 10 presents survey responses from teachers asked about a wide variety of potential tool uses.

Figure 10. Teacher Report of Effective Tool Use

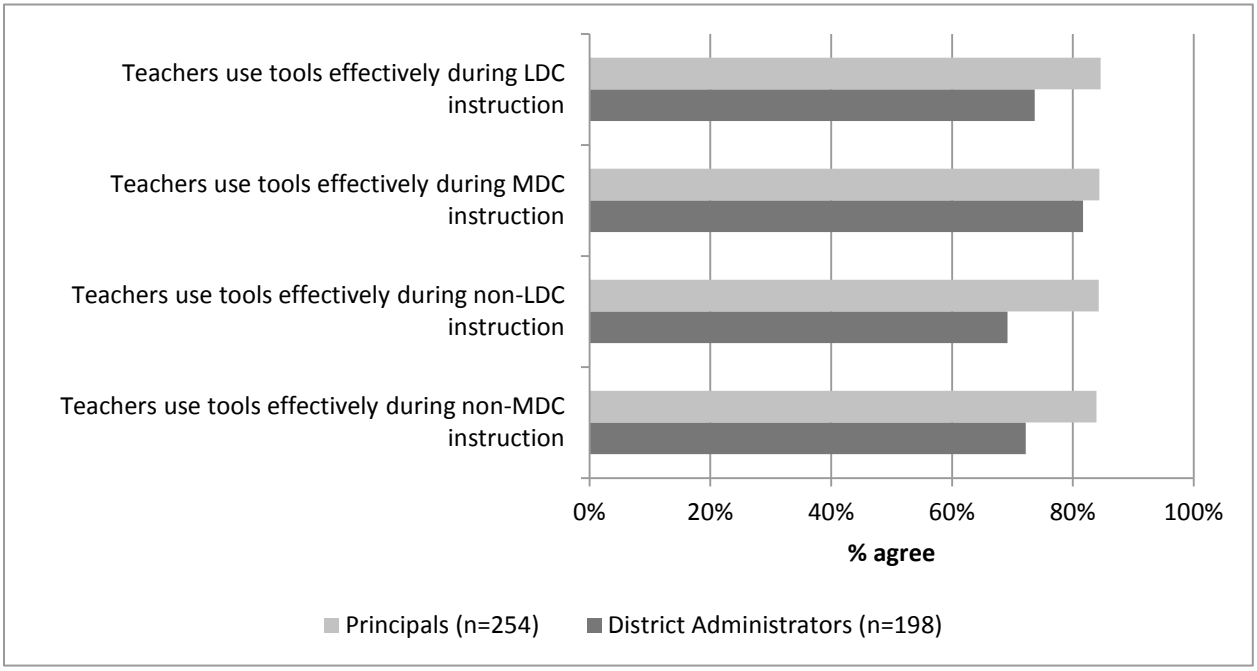


- Strong majorities of both LDC and MDC teachers reported the tools help them effectively implement instructional strategies.
- Over 80% of both LDC and MDC teachers reported that the tools raised their expectations for student work.
- A consistently higher percentage of MDC teachers agreed that the tools were being used effectively.

ii. Principal/District Administrator Report of Effective Tool Use

We asked principals and district administrators if they thought teachers were using the tools effectively during LDC and MDC instruction, and during non-LDC or non-MDC instruction. Figure 11 lays out school and district leader beliefs on how effectively teachers are using the tools.

Figure 11. School and District Leaders Believe that Teachers Use the Tools Effectively



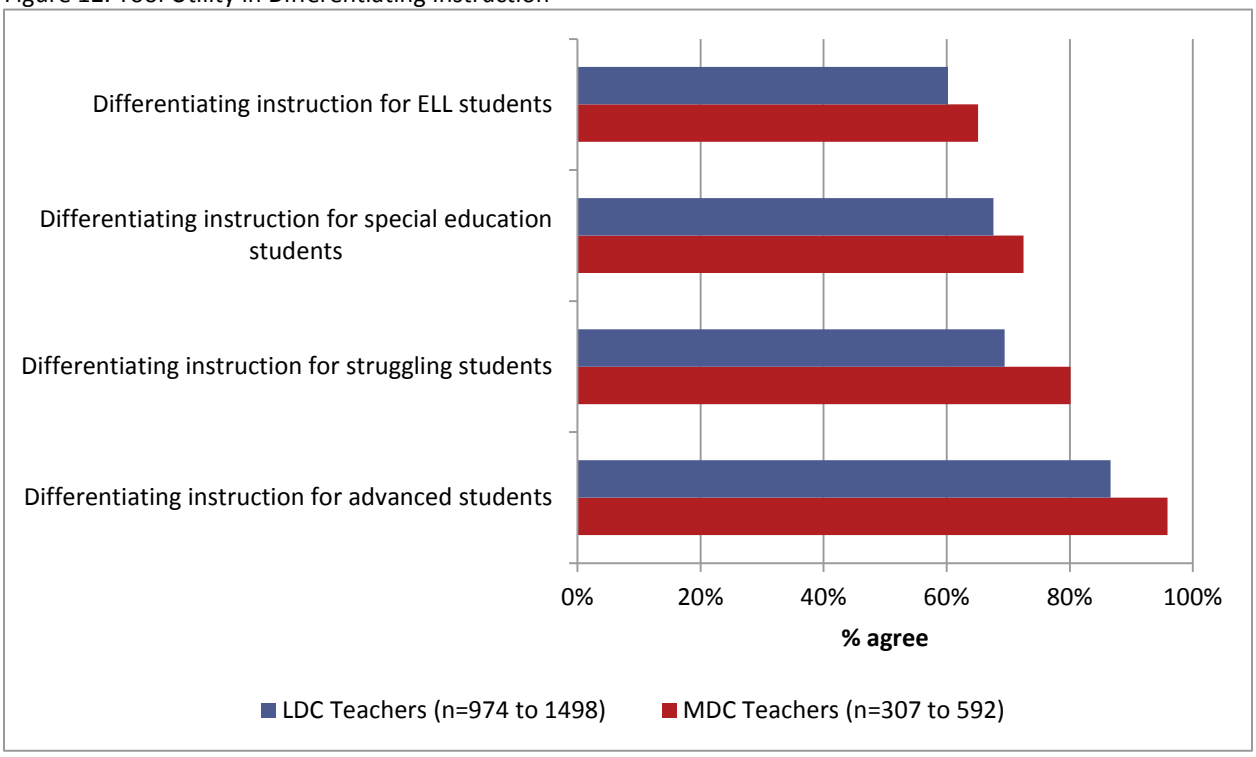
- There was strong agreement from principals and district administrators that teachers were using the LDC and the MDC tools effectively.
    - Overall, principals were more positive than district administrators.

- There was strong agreement from principals and district administrators that the tools were positively affecting teaching outside of narrow LDC and MDC tool use.

iii. Teacher Report on Tool Use and Differentiating Instruction

We asked teachers about tool use and differentiating instruction. Figure 12 summarizes our results.

Figure 12. Tool Utility in Differentiating Instruction



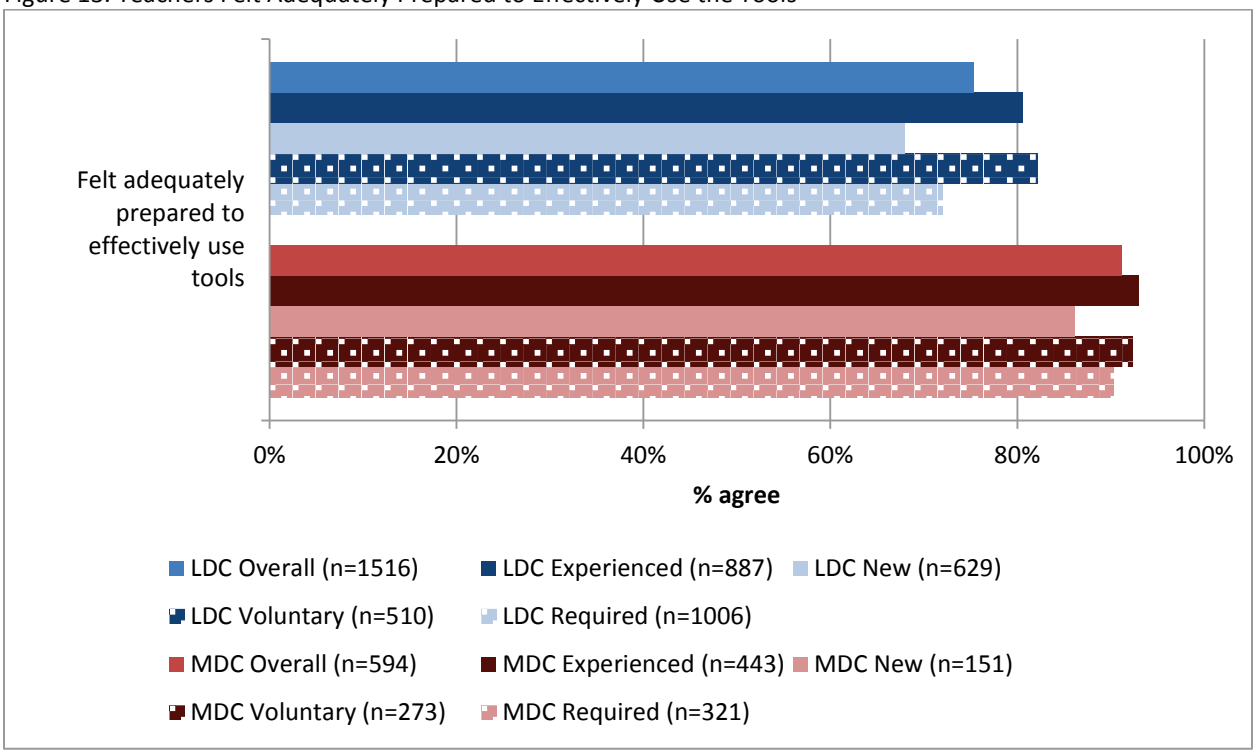
- Teachers who taught advanced students were most likely to agree that LDC and MDC helped them differentiate instruction.
- A higher percentage of teachers faced challenges in differentiating instruction for struggling students.
- LDC teachers were consistently less likely to agree that they could use the tools to differentiate instruction than MDC teachers were.

iv. Teacher Report on Preparation to Use the Tools in their Classrooms

We asked LDC and MDC teachers about how adequately prepared they felt to use the tools effectively in the classroom. We examined whether differences existed between LDC and MDC teachers, experienced and new LDC and MDC teachers[5], and LDC and MDC teachers who were voluntarily participating in the initiative as opposed to being required. Figure 13 summarizes the results.

[5] "Experienced" and "new" refers to years of experience with the LDC/MDC Initiatives and use of LDC/MDC tools.

Figure 13. Teachers Felt Adequately Prepared to Effectively Use the Tools

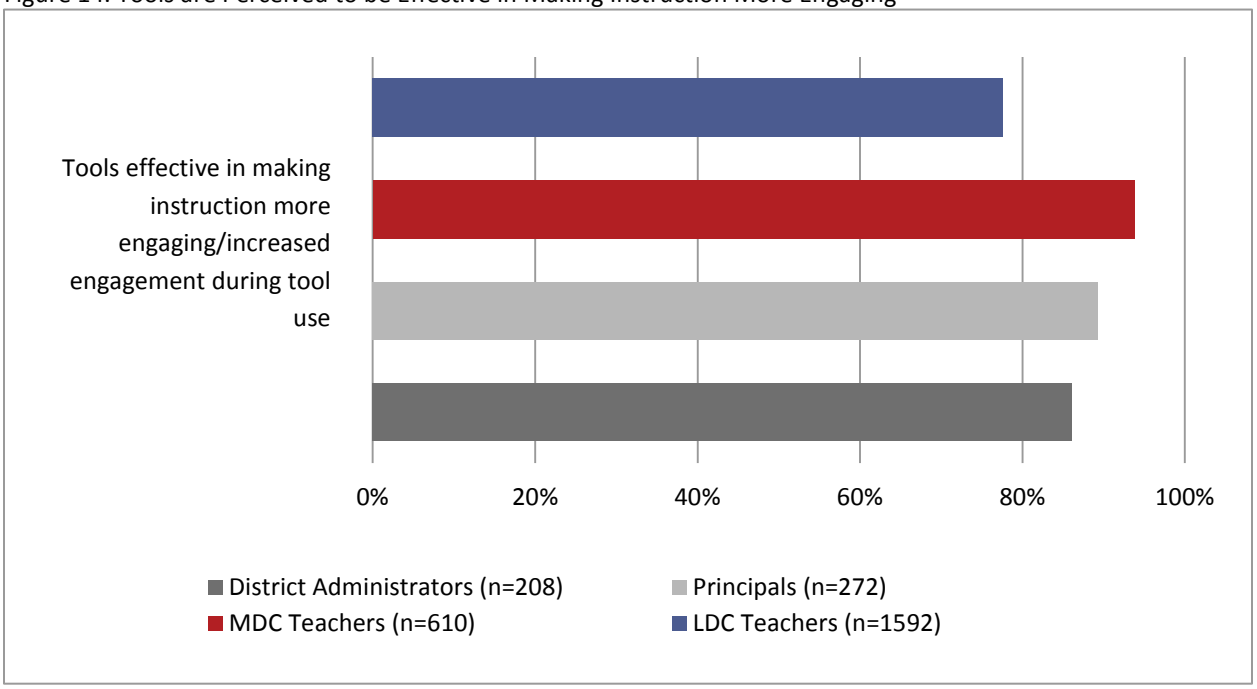


- A large majority of LDC and MDC teachers reported feeling adequately prepared to effectively use the tools.
- A higher percentage of experienced LDC teachers and MDC teachers than teachers new to the initiative reported feeling more prepared to effectively use the tools.
- Higher percentages of teachers voluntarily using the tools reported feeling adequately prepared to effectively use the tools than teachers required to use them.
- Across all categories of teachers, a higher percentage of MDC teachers than LDC teachers reported feeling adequately prepared to effectively use the tools.

Indicator 2. Students exhibit engagement during tools use.

We asked LDC and MDC teachers, principals, and district administrators to provide their perceptions about whether the tools were helping to make instruction more engaging to students. Figure 14 presents our findings.

Figure 14. Tools are Perceived to be Effective in Making Instruction More Engaging

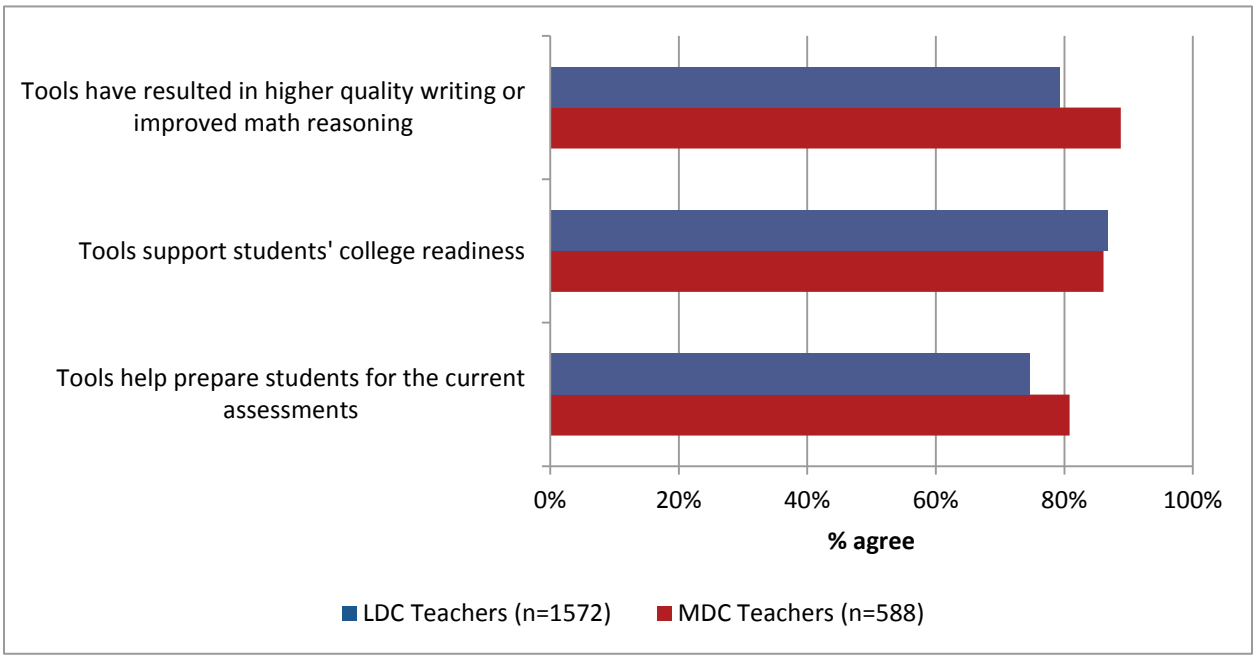


- Strong majorities of teachers, principals, and district administrators perceived that the tools made instruction more engaging.
- Positive results were most pronounced among MDC teachers: close to 90% reported that they perceived the tools to be effective in engaging students.

Indicator 3. Teachers perceived improvement in student learning.

We asked LDC and MDC teachers to give their perceptions of how the tools have improved student learning. Figure 15 summarizes the findings.

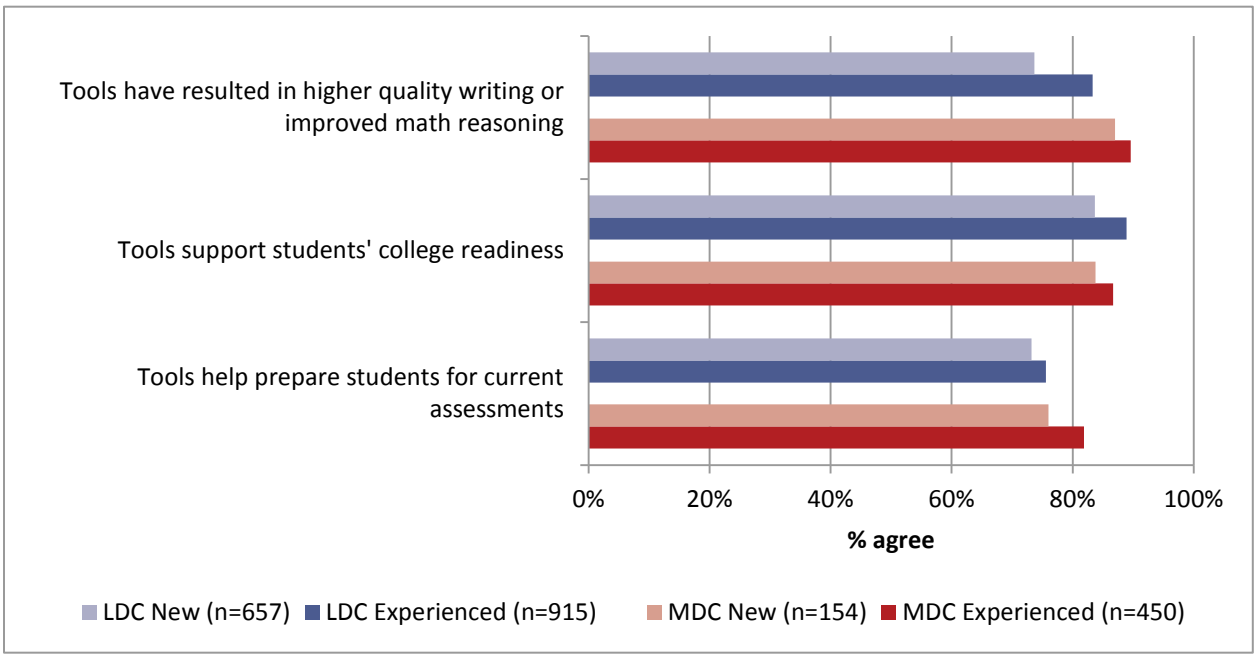
Figure 15. Perceived Improvement in Student Learning from Tool Use



- Strong majorities of both LDC and MDC teachers perceived improvement in student learning and college readiness.
- A somewhat smaller percentage of LDC teachers (75%) than MDC teachers (80%) perceive that the tools helped prepare students for current assessments.

We looked at LDC and MDC teachers' perceptions of how the tools have improved student learning – asking both new and experienced teachers. Figure 16 presents our findings.

Figure 16. Perceived Student Improvements from Tool Use by New and Experienced Teachers



- Experienced LDC teachers were more likely to have positive perceptions that the tools resulted in higher-quality writing and supported student college readiness than teachers new to the initiative.
- Experienced MDC teachers were only slightly more likely to have positive perceptions that the tools resulted in improved math reasoning and supported student college readiness than teachers new to the initiative.
- Among both new and experienced LDC and MDC teachers, lower percentages of teachers agreed that the tools helped prepare students for current assessments than agreed that the tools result in stronger student outcomes in their writing, math reasoning, and college readiness.

3. Summary

Across both LDC and MDC, we see strong evidence of robust implementation along a number of key dimensions.

- Teacher Beliefs and Knowledge – Teachers reported: belief in the underlying principles of the tools, a high level of buy-in; and, knowledge of how to use the tools. These indicators of robust implementation held steady from 2011-12 to 2012-2013.
- Classroom Changes – Teachers reported: effective use of the tools; students exhibiting engagement during tool use; and, improvement in student learning. These indicators held steady from 2011-12 to 2012-13.
    - However, in 2012-13 as in 2011-12, a higher percentage of teachers agreed that the tools support differentiated instruction for advanced students than for ELL, special education, or struggling students.
- Higher percentages of experienced LDC and MDC teachers answered questions about impact on practice and student learning more positively than teachers in their first year implementing the LDC or MDC tools.
- Higher percentages of MDC teachers were more positive in their responses to questions relating to teacher beliefs and knowledge and classroom changes than LDC teachers.

Chapter 3: Conditions Supporting Robust Implementation

As illustrated in the Theory of Action (Figure 3), three overlapping Conditions support robust implementation of the initiatives: Alignment, Leadership, and PLOs.

Chapter 3 examines the extent to which conditions that support effective implementation are in place as the LDC and MDC initiatives scale-up and expand. While variation exists among elements of the conditions supporting robust implementation, in most instances similar percentages of survey respondents reported in both 2011-12 and 2012-13 that they are in place.

Tables 7 through 9 provide a snapshot of this comparison for each condition. The data should be interpreted with caution, since the survey samples are distinct. However, results suggest that many elements of the conditions of robust implementation continue to hold as the initiative scales up.

For each Condition we first provide a review of changes from 2011-12 to 2012-13. This is followed by a more detailed analysis of the status of each condition during the 2012-2013 school year.

1. Condition: Alignment

Previous RFA reports established that perceptions of alignment of the tools with the CCSS are critical to teacher adoption of the tools.

A. Change in Alignment: 2011-12 to 2012-13

For the columns labeled 2011-12 and 2012-13, we provide the percent of respondents who agreed with the corresponding survey questions that map to the supporting condition Alignment. The Change column employs three symbols to capture the degree to which responses changed when compared with last year.

How to interpret this table	
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table 7. Indicators of Alignment and Examples of Evidence: 2011-12 and 2012-13

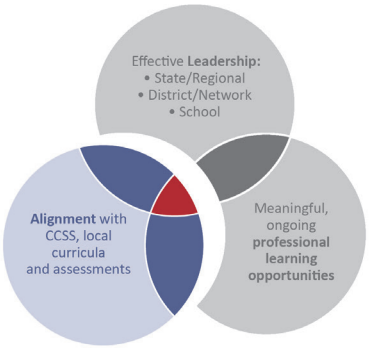
Supporting Condition Indicator	Evidence	2011-12	2012-13	Change
	**Teachers agree that the tools align with the CCSS**			
	• LDC	**93%**	**92%**	=
	• MDC	**94%**	**94%**	=
	Teachers agree that the tools align with state assessments			
	• LDC	**68%**	**75%**	=
	• MDC	**82%**	**80%**	=
	Teachers agree that the tools align to the school curriculum			
	• LDC	**79%**	**88%**	=
	• MDC	**81%**	**92%**	↑
	Some teachers report that the tools DO NOT compete with other district curricula			
	• LDC	**39%**	**54%**	↑
	• MDC	**39%**	**58%**	↑

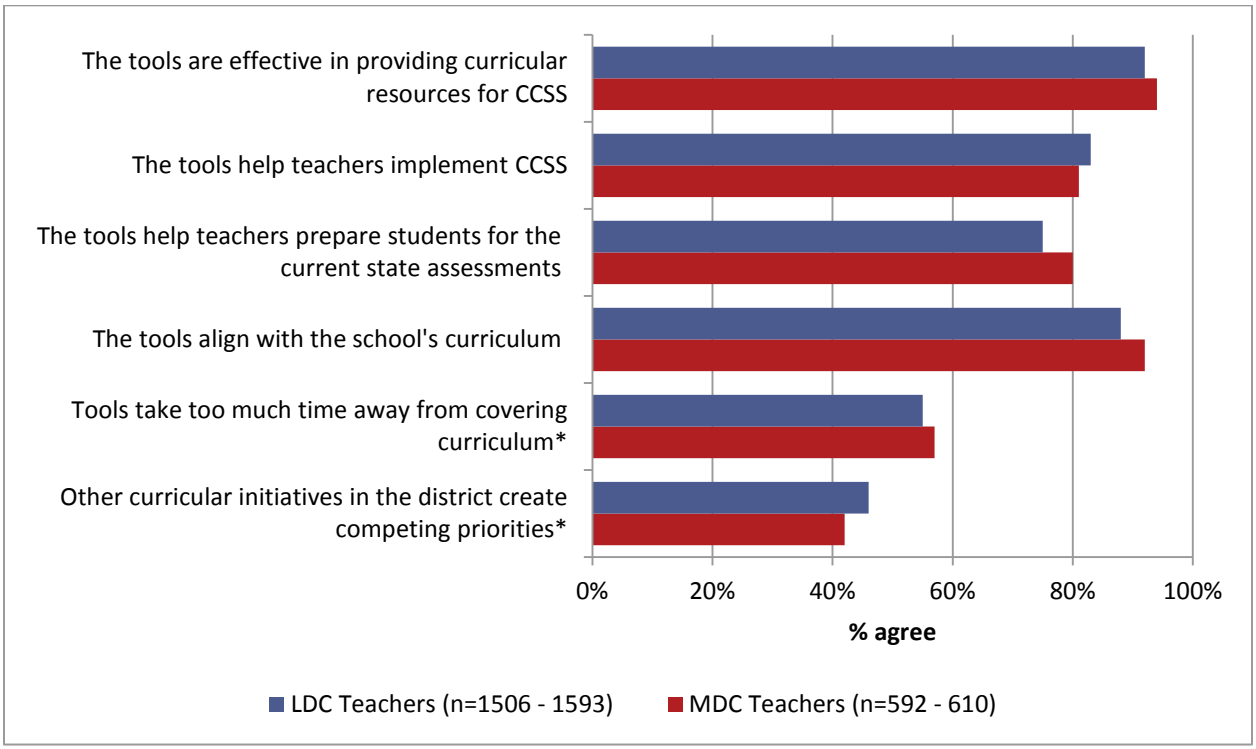
Table 7 presents an overview of this year's findings compared to last year's findings. While the sample is considerably larger this year, and incorporates a higher proportion of respondents who were new to the initiative, roughly the same or greater percentages of teachers' responses reveal alignment between the tools and the CCSS, state assessments, and local curricula.

- High percentages of both LDC and MDC teachers have agreed that the tools are aligned with the CCSS in both 2011-12 and 2012-13.
- The percentages of LDC and MDC teachers that agree the tools are aligned with the state assessments are similar in 2011-12 and 2012-13.
    - MDC teachers agreed in higher percentages than LDC teachers.
- Higher percentages of LDC and MDC teachers agree that the tools are aligned with the school curriculum in 2012-13 than had in 2011-12.
- The percentages of LDC and MDC teachers who reported that the tools do not compete with other district curricula are up from 2012-13 to 2011-12.

B. 2012-13 Results

The remainder of this section provides a more detailed status report of alignment supporting robust implementation in the 2012-13 school year. All figures that follow in this section draw on data from the 2012-13 year of LDC and MDC implementation. Figure 17 presents a review of LDC and MDC teachers' perceptions of LDC and MDC alignment with the CCSS, state assessments, and school curriculum.

Figure 17. Teacher Perceptions of LDC and MDC Alignment with CCSS, State Assessments, and School Curriculum



* These are negative questions that indicate that LDC and MDC are not aligned with school curriculum and other initiatives.

- About 90% of both LDC and MDC teachers agreed that the tools provide curricular resources for the CCSS, and align with the school's curriculum.
- A slightly lower percentage of LDC and MDC teachers agreed that the tools helped teachers implement the CCSS, and helped teachers prepare their students for the state assessments.
- There is conflicting data on the alignment of the tools with the curriculum—high percentages of LDC and MDC teachers reported that the tools were aligned with the school's curriculum, yet over half reported that the tools take too much time away from the curriculum; and nearly half reported that there are other curricular initiatives in the district creating competing priorities.

RFA interview data provide some insight into this mixed picture on alignment with curricula. In some sites, districts were using curricula that leaders and teachers identified as aligned with both the CCSS and with LDC and MDC, but there were still small gaps and conflicts. A math leader noted that the 7th -grade curriculum "might include some topics that are now a 6th-grade standard," which would not fully align with an MDC Classroom Challenge focused on a 7th-grade standard. She described alignment between MDC, the curricula, and the CCSS as "an ongoing process." At another site, teachers noted that LDC and the aligned curricula used different language for similar activities, creating confusion for themselves and students.

Some districts' curricula continued to be aligned to content-based assessments. Science and social studies teachers reported that even when the LDC in-depth learning approach is aligned with curriculum content, it can take more time to cover that content, leading to the complaint that LDC takes too much time. When content area teachers feel pressure to "cover" material to prepare students for assessments, introducing LDC or MDC material can be perceived as a diversion from that path of preparation.

2. Condition: Leadership

Leadership in the LDC and MDC initiatives takes multiple forms, from providing resources to support tool implementation to working directly with teachers to help them make changes to their instructional practice. The support provided by principals and district administrators is likely to vary by their understanding of the tools. While many school and district administrators value the importance of the tools and generally understand the tools, some may struggle with the specifics of the tools. Further, it appears that many teachers believe that while district administrators support the tools, school administrators may not be articulating the importance of LDC and/or MDC to support CCSS implementation. Yet, even where leadership support is evident, there is little evidence that administrators are successfully identifying funding sources to sustain the initiatives going forward.

A. Change in Leadership: 2011-12 to 2012-13

Table 8 presents an overview of this year's findings compared to last year's findings. While the sample is considerably larger this year, and incorporates a higher proportion of respondents that were new to the initiative, percentages of teachers' and administrators' reporting that leadership supports tool implementation generally remains the same or decreases.

For the columns labeled 2011-12 and 2012-13, we provide the percent of respondents who agreed with the corresponding survey questions that map to the supporting condition Strong Leadership. The Change column employs three symbols to capture the degree to which responses changed when compared with last year.

How to interpret this table	
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table 8. Indicators of Strong Leadership and Examples of Evidence: 2011-12 and 2012-13

Supporting Condition Indicator	Evidence	2011-12	2012-13	Change
	**School leaders report that they take on multiple roles, citing most often:**			
	• Monitoring overall implementation	**90%**	**71%**	↓
	• Observing lessons	**77%**	**80%**	=
	• Providing professional development to teachers	**34%**	**43%**	=
	• Providing feedback	**62%**	**55%**	=
	District leaders report that they take on multiple roles, citing most often:			
	• Monitoring overall implementation	**83%**	**65%**	↓
	• Observing lessons	**68%**	**54%**	↓
	• Providing professional development to teachers	**56%**	**49%**	↓
	• Providing feedback	**52%**	**40%**	↓

- Across the multiple roles they reported taking on, similar percentages of school leaders continued to observe lessons, provide feedback, and provide professional development to teachers in both 2011-12 and 2012-13.
- Lower percentages of school and district leaders reported to be monitoring overall implementation of the initiatives in 2012-13 than 2011-12.
- Lower percentages of district leaders reported to be providing professional development to teachers in 2012-13 than in 2011-12.

B. 2012-13 Results

The remainder of this section provides a more detailed status report of leadership supporting robust implementation in the 2012-13 school year. It includes a review of: leadership structures; common school and district leadership roles; leaders' understanding of the initiatives; leaders' communication about the initiative; and, leaders' involvement in securing financial support for LDC and MDC. All figures that follow in this section draw on data from the 2012-13 year of LDC and MDC implementation.

i. Leadership Structures

Depending on the structures that exist in a particular state or region participating in LDC or MDC, leadership can originate at the state education agency level, at a state partner organization level, or at a regional level. Table 9 presents an overview of present state and regional leadership roles for LDC and MDC that correspond to this survey sample.

Table 9. State and Regional Leadership Roles

State and Regional Leadership Roles

State Leadership: The organization responsible for the implementation and scale-up of the tools varies across the studied states between the state education agency (SEA) and the state partner organization (SPO).

State	State Education Agency (SEA) Lead	State Partner Organization (SPO) Lead	Shared Lead between SEA & SPO	No SEA or SPO Lead
Arkansas			X	
Colorado		X		
Florida		X		
Georgia	X			
Kentucky	X			
Louisiana	X			
New York				X
Pennsylvania		X		

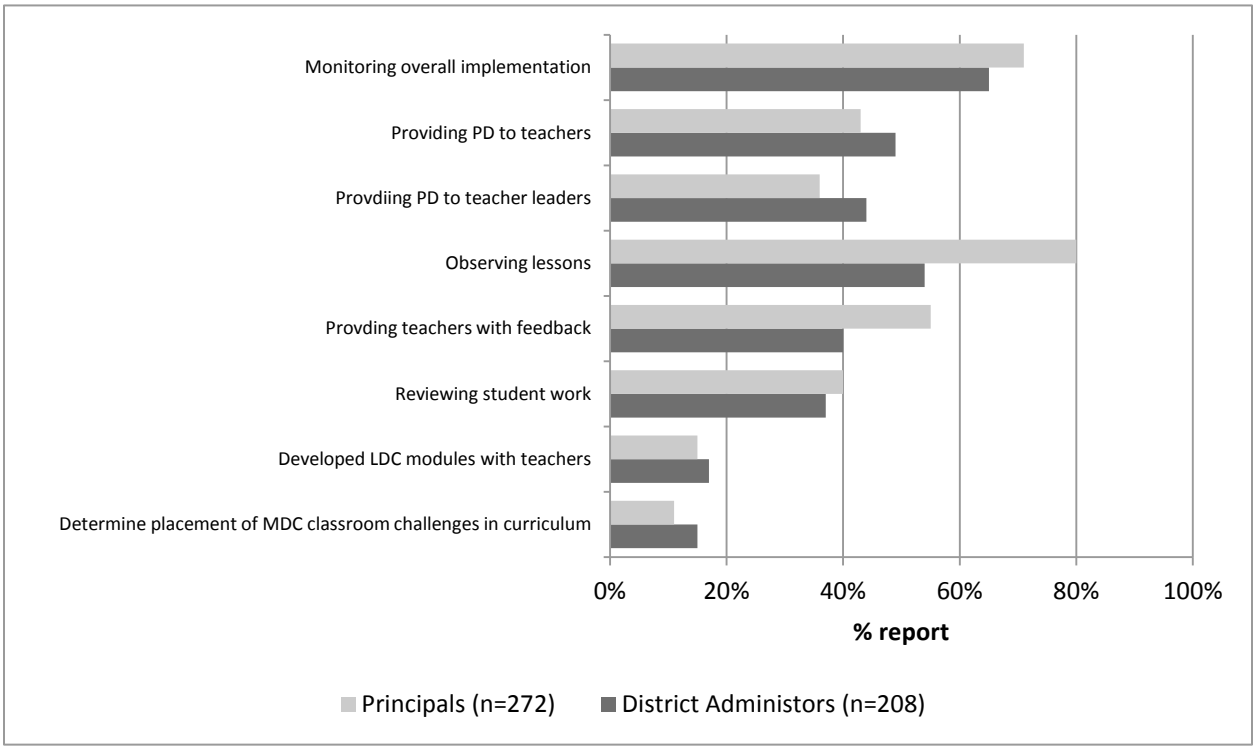
Regional Leadership: Regional Education Service Centers (RESCs) have also played a key role in the training and scale-up of the tools across multiple states.

State	Regional Education Service Center Activities
Arkansas	The regional centers host professional development sessions and provide ongoing training to schools.
Georgia	Mentors at the 16 regional education service agencies are heavily involved in providing training and ongoing support.
Kentucky	The regional cooperatives are assisting the SEA by providing ongoing opportunities for learning and collaboration across their regions.
Louisiana	The network teams, as part of the regional service organizations, provide support and act as the liaison between the schools and the SEA.
Pennsylvania	The Intermediate Units (particularly IU-13) are taking the lead in coordinating the initiative across the districts within their regions.

ii. Common School and District Leadership Roles

In Figure 18, school and district administrators reported performing the multiple functions.

Figure 18. Central Roles that Principals and District Administrators Perform in Implementing LDC and MDC Tools



- Roles most often taken on by responding principals and district administrators in LDC and MDC tool implementation were: monitoring the implementation of the tools; observing lessons; offering feedback to teachers; and, providing professional development to teachers and teacher leaders.
- While lower percentages of district administrators reported observing lessons than principals, other supports (e.g., professional development) were provided at similar levels by both the school and district levels.
- Lower percentages of district administrators and principals were involved in developing modules or determining placement of MDC Classroom Challenges in the curriculum than other activities related to oversight of tool implementation.

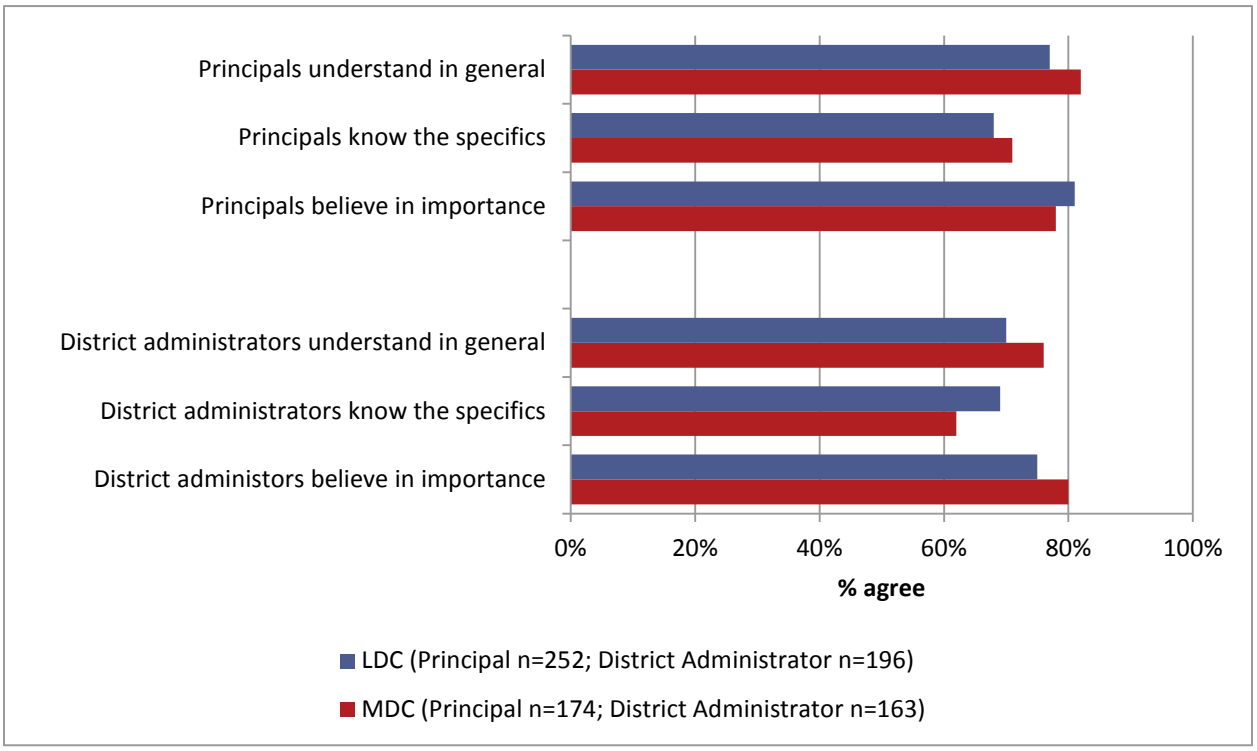
District administrator and principal roles vary by district. Central office leaders' oversight of tool implementation can include: involvement in module development; participating as part of district-wide teams; and, observing module instruction and providing feedback. For example, one district emphasized principal professional development, while tasking principals with leading school-based groups looking at LDC or MDC student work. Also, a regional effort designed their approach to position principals as the instructional leaders of LDC. In that set of districts, principals: participated in all regional professional development; led a total of 24 hours of job-embedded professional development at their schools; provided support for their teachers; and, handled invoicing of the regional coordinator.

In interviews, district administrators in their second and third years of implementation identified developing principal LDC/MDC leadership as both a challenge and the key to scale-up and sustainability.

iii. School and District Leaders' Understanding of the Initiatives

Figure 19 summarizes how principals and district administrators understand the relevance of the LDC and MDC tools within their schools and districts, and the extent to which they comprehend the details around implementation of the tools.

Figure 19. Principals' and District Administrators' Understanding of the Tools



- Strong majorities of principals and district administrators reported that they:
  - had a general understanding of the tools; and
  - believed in the importance of the tools
- However, slightly lower percentages of principals and district administrators understood the specifics of the initiative.

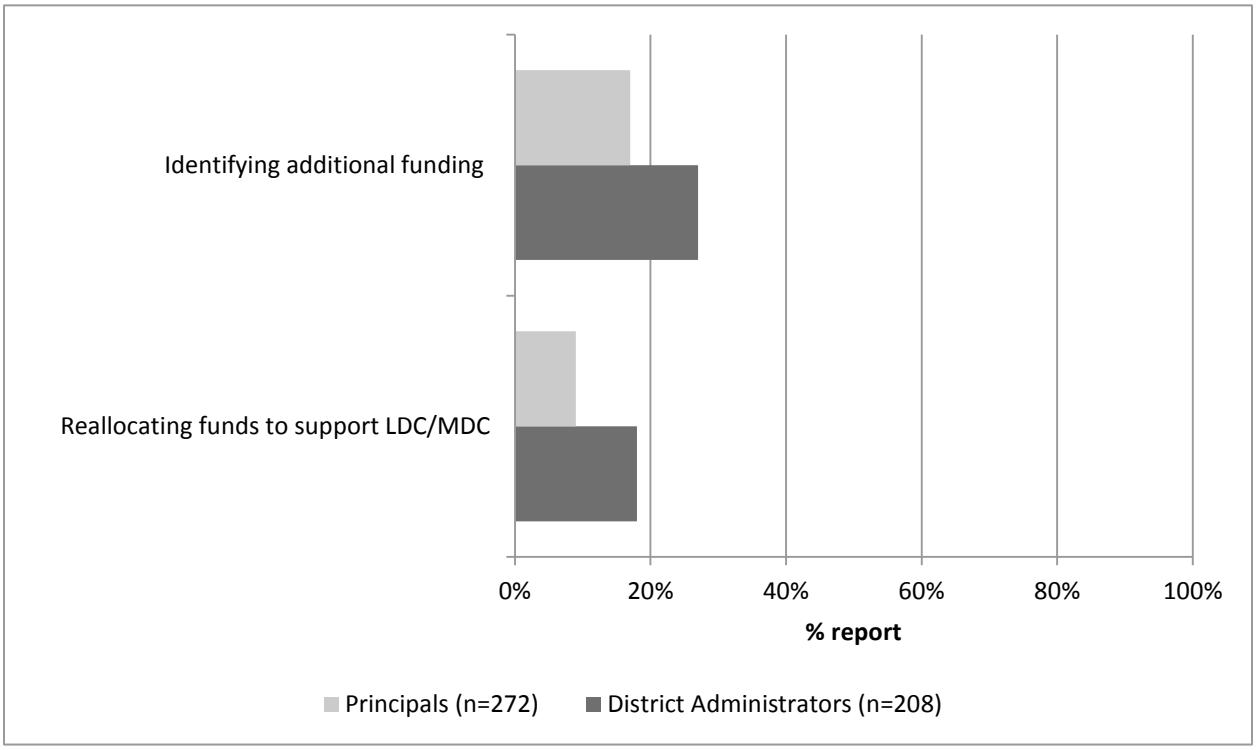
According to district administrators, many principals and administrators have less in-depth understanding of the tools than teachers who have hands-on contextual knowledge gained from implementing the tools. A math professional development provider commented on why some principals lacked knowledge of the math tools: *"Math is a difficult subject for secondary principals. Most of them aren't comfortable with the subject themselves; they need to rely on somebody else to tell them that this is important. In some cases, principals say, 'Well, I'm sending you to MDC. I've done my work,' yet principals don't know what it's really about.*

Leaders' Communications about the Centrality of the LDC or MDC Tools
According to RFA's case studies to date in two sites, clear, consistent communication about the importance of LDC and MDC has emerged as a critical component of successful implementation.[6] One professional development provider for MDC commented on the importance of leadership: *First and foremost, leaders have to buy in and be supportive of the work. Leadership is incredibly important. If the leaders are communicating to teachers a different message other than, "This is really important. This is how we want to teach, this is what we value." … The more that leaders are out front, championing the work, the more it becomes systematic at your school.*

iv. Financial Support

Ensuring the financial stability and support of the LDC and MDC initiatives is a central element of long-term sustainability. We asked district administrators and principals if they had played a role in identifying additional funding or reallocating funds to support LDC/MDC. The findings are presented in Figure 20.

Figure 20. Roles that Principals and District Administrators Play in Identifying Financial Support of LDC and MDC



[6] RFA published two case studies of the LDC/MDC Initiatives: one that highlights the Condition of Leadership in Kenton County, Kentucky (2012) and another that highlights leadership structures to support LDC in Hillsborough County School District in Florida (2013). Both speak to the central role of district leadership in guiding the initiatives and embedding them into the fabric of the district. For more in-depth information on the strategies leaders used in these districts go to http://www.researchforaction.org/rfa-study-of-tools-aligned-ccss.

- Just over one-fourth of district administrators and less than one-fifth of principals reported that they have played a role in identifying additional funding to support LDC or MDC.
- Higher percentages of district administrators than principals were involved in raising funds for the initiatives, most likely because funding for LDC and MDC is more often a district-level concern.

3. Condition: Professional Learning Opportunities

PLOs are a central strategy for sustaining successful and effective use of the tools. Although the two initiatives have been in place in some sites for three years, teachers and leaders benefit from opportunities to reflect on and refine their practice as they move forward. Teachers new to the initiatives need professional development to understand the specific purpose of the tools, how the tools are situated in their schools' strategic visions, and how to effectively use the tools in their classrooms. For both experienced and new teachers, formal professional development sessions and more informal collaboration between teaching colleagues should occur on a regular basis.

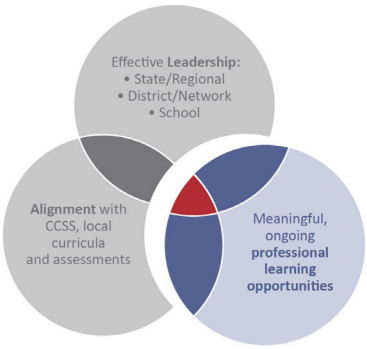
A. Change in Professional Learning Opportunities: 2011-12 to 2012-13

Teacher reports for 2011-12 and 2012-13 on the levels of participation in PLOs and its effectiveness reveal some improvements (i.e., higher percentages of MDC teachers attend professional development and report that it is effective) while the content offered and the available time for collaboration remain a challenge for some teachers.

For the columns labeled 2011-12 and 2012-13, we provide the percent of respondents who agreed with the corresponding survey questions that map to the supporting condition PLOs. The Change column employs three symbols to capture the degree to which responses changed when compared with last year.

How to interpret this table	
↑	Increase of 10 or more percent
=	Less than 10 percent change in either direction
↓	Decrease of 10 or more percent

Table 10. Indicators of Professional Learning Opportunities and Examples of Evidence: 2011-12 and 2012-13

Supporting Condition Indicator	Evidence	2011-12	2012-13	Change
	**Teacher participation rates in formal professional development:**			
	• LDC	**73%**	**79%**	=
	• MDC	**43%**	**76%**	↑
	Teachers agreed that small group meetings were effective:			
	• LDC	**82%**	**83%**	=
	• MDC	**68%**	**95%**	↑
	Teachers desire more support in differentiating instruction for struggling students, ELL students, and special education students:			
	• LDC	**77%**	**66%**	↓
	• MDC	**79%**	**79%**	=
	Teachers have scheduled common planning time dedicated to working on the initiative:			
	• LDC	**50%**	**45%**	=
	• MDC	**60%**	**50%**	↓

While the sample is considerably larger this year, and incorporates a higher proportion of respondents that were new to the initiative, teachers' and administrators' responses remain the same or are more positive.

- Rates of participation in professional development have remained constant for LDC teachers, while they have increased for MDC teachers.
- Higher percentages of MDC teachers rated small group meetings as effective in 2012-13 than in 2011-12.
- At high percentages, teachers continue to desire support in differentiating instruction, and supporting both ELL students and special education students.
- This year, a higher percentage of teachers found collaboration important.
    - This is most notable for MDC, where fewer than half of teachers in last year's sample found collaboration important to the initiative, while over 90% of this year's sample valued collaboration.
- Lack of common planning time remains an issue for approximately half of all teachers.

B. 2012-13 Results

The remainder of this chapter provides a more detailed status report of the PLOs supporting robust implementation in the 2012-13 school year. It includes a review of: participation in professional development activities, types of PLOs available to teachers and administrators, and content of PLOs. Further findings on how teachers collaborate with one another are also presented. All figures that follow in this section draw on data from the 2012-13 year of LDC and MDC implementation.

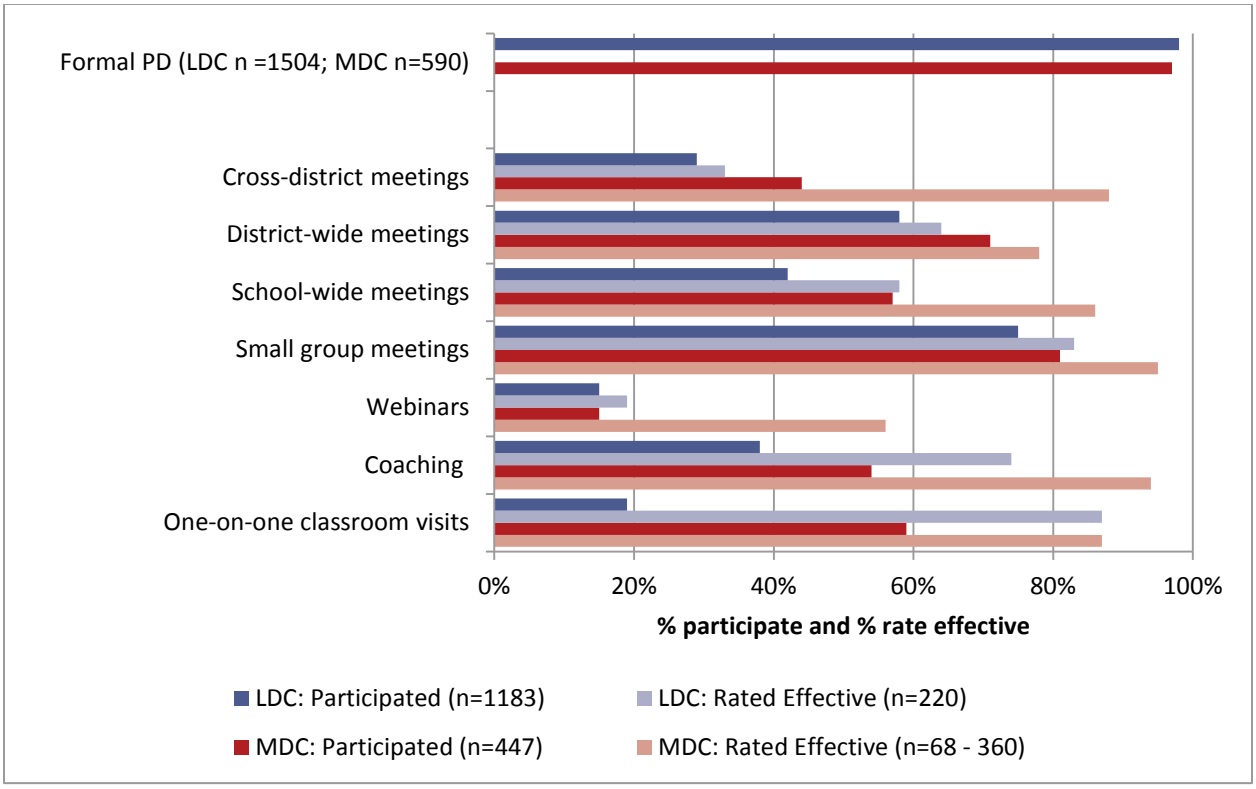
i. Participation and Effectiveness in Professional Development

A high percentage of teachers and administrators involved in the LDC and MDC initiatives reported participating in various forms of professional development. Teacher reports of effectiveness varied by initiative and recipient.

The following three figures present participation rates along with perceptions of the effectiveness of various forms of professional development for teachers, principals, and district administrators. For purposes of the next three figures, we define formal professional development as organized and formally scheduled, with a leader or facilitator present, sponsored by the school, region or district. It is important to note that while some collaboration opportunities are a form of formal professional development, other forms can fall into the informal professional development category.

Figure 21 presents teacher participation in various forms of PLOs alongside teacher perceptions of how effective the sessions were in supporting their efforts to develop and implement the tools.

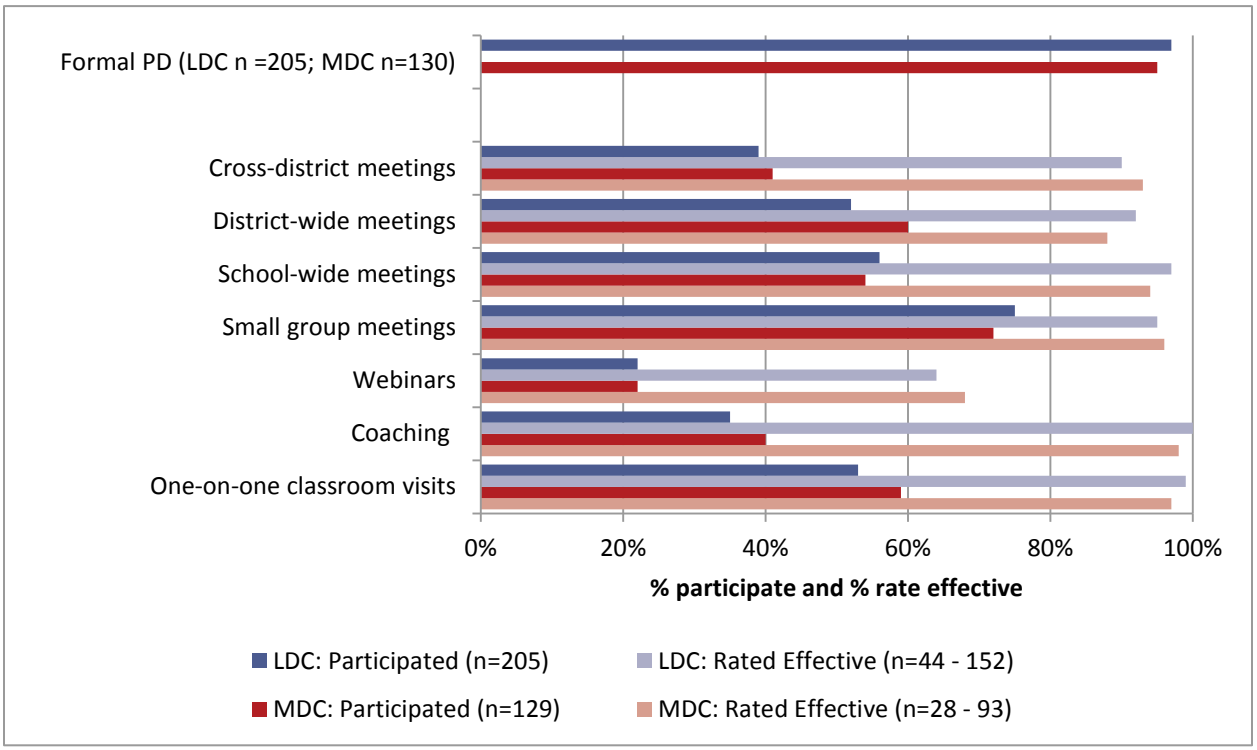
Figure 21. Teacher Participation in PLO and Perceived Effectiveness of PLO



Participation	Effectiveness
• Close to 80% of both LDC and MDC teachers reported participating in formal professional development. • MDC teachers reported participating in more professional development overall than LDC teachers. • Coaching and one-on-one classroom visits were more prevalent in MDC than in LDC. • Webinars were the least frequently attended by both LDC and MDC teachers.	• LDC teachers found smaller or more personalized professional development much more effective than larger delivery modes. • MDC teachers found all modes of professional development effective, although webinars the least so. • Both LDC and MDC teachers found webinars least effective.

Figure 22 presents principal participation in various forms of PLOs alongside principal perceptions of how effective the sessions were in supporting their efforts to facilitate the implementation of the tools.

Figure 22. Principal Participation in PLO and Perceived Effectiveness of PLO



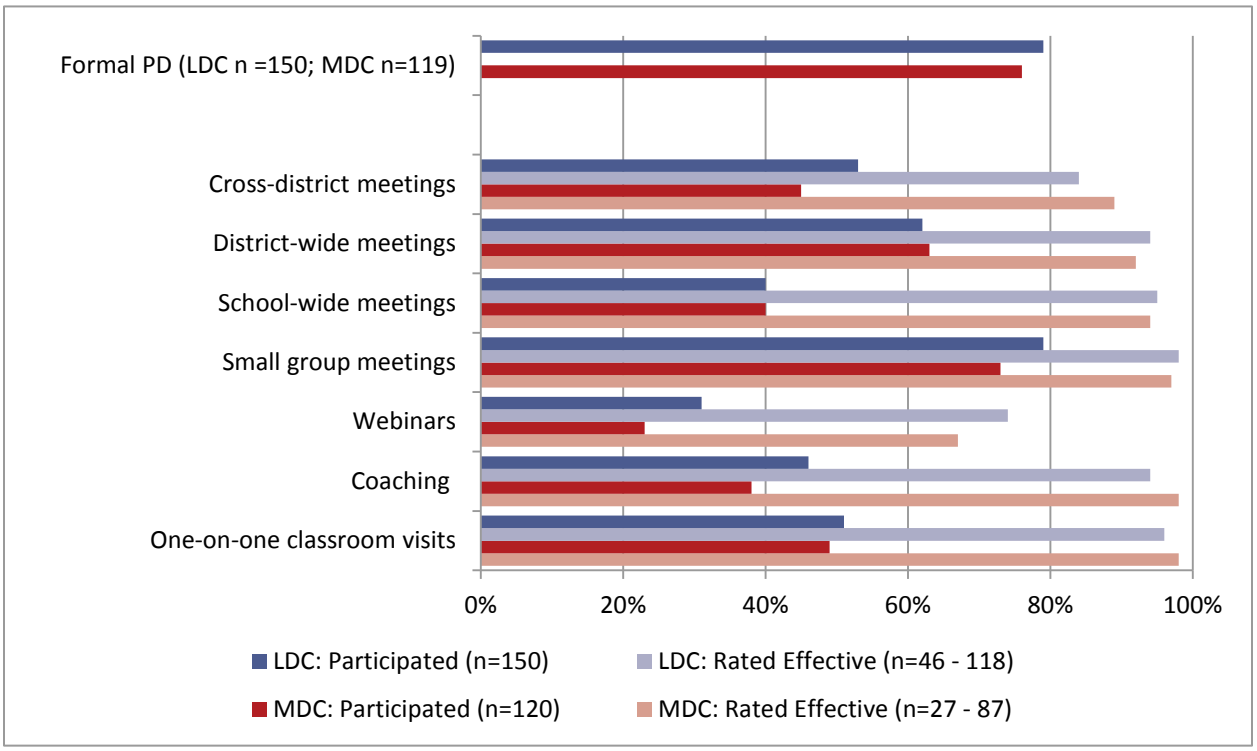
Participation	Effectiveness
• Almost all principals participated in formal professional development related to the tools. • LDC and MDC principals participated in various forms of professional development at similar rates, with small group meetings being most prevalent. • Webinars were the least frequently attended by both LDC and MDC principals.	• High percentages of principals rated all forms of professional development as effective, with slightly lower percentages finding webinars effective.

Though webinars were rated as the least effective form of professional development delivery, some professional development providers and district leaders envision a 'blended' approach to scaling impact of the tools. …. One provider said, "*I think we need a blended approach. We definitely need some virtual, in terms of spread and scale. But you need, periodically, some face-to-face."*

A regional partner described the on-going work to strengthen and expand the virtual work: *We are working on our new web based portal. There's a lot of user feedback to make that more user friendly. We ditched the virtual office hours, that didn't work for us. Districts asked for webinars for the Year One folks, but attendance has not been very good on those. The webinars may be a transitional piece to help us build the content that we can turn into screencasts and put into on-line courses.*

Figure 23 presents principal participation in various forms of PLOs alongside district administrator perceptions of how effective the sessions were in supporting their efforts to facilitate the implementation of the tools.

Figure 23. District Administrator Participation in PLO and Perceived Effectiveness of PLO

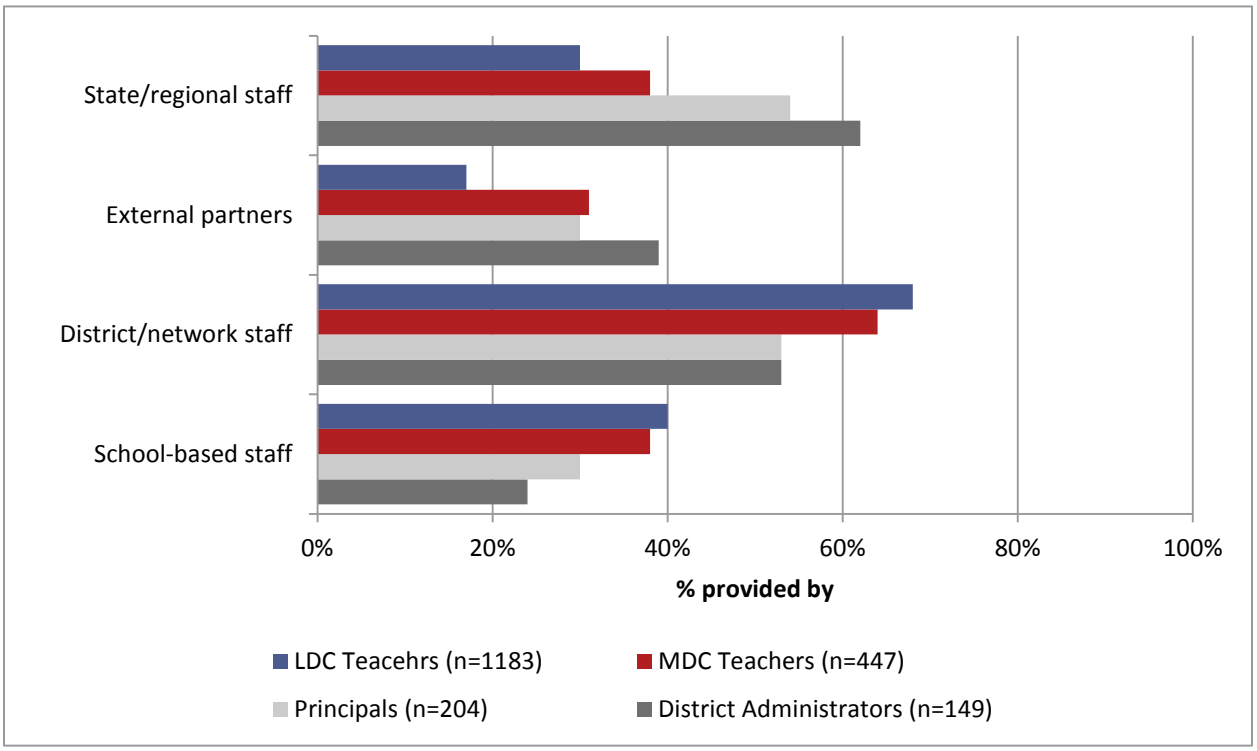


Participation	Effectiveness
• Like principals, almost all district administrators participated in formal professional development related to the tools. • LDC and MDC district administrators participated in various forms of professional development at similar rates, with small group meetings being most prevalent. • Webinars were the least frequently attended by all district administrators.	• High percentages of district administrators rated all forms of professional development as effective, with slightly lower percentages finding webinars effective. • Although coaching was attended by a small percentage of district administrators, those who attended were highly likely to rate coaching as effective.

ii. Providers of Professional Development

As presented in Figure 24, teachers and administrators reported on what entity provided the professional development sessions they attended.

Figure 24. Types of Providers for the Professional Development Sessions Attended



- District/network staff provided professional development to teachers most often, while state/regional staff provided the most professional development to administrators.
- MDC teachers participated in almost twice as much professional development provided by external partners as LDC teachers.

iii. Content of Professional Development Sessions

For both teachers and administrators, content of professional development sessions most frequently focused on tool implementation (and development for LDC). Educators reported less focus on differentiating instruction.

More than 80% of LDC and MDC teachers attended professional development related to tool implementation.

For LDC, this included:

- Building teaching tasks;
- Using mini-tasks;
- Scoring student work; and
- Using the instructional ladder.

For MDC, this meant:

- Facilitating whole-group instruction;
- Small group work;
- Developing feedback questions; and

- Identifying common misconceptions.

Smaller percentages of both teachers and administrators across LDC and MDC attended professional development related to working with students that require additional assistance.

Fewer than half of LDC teachers and administrators attended professional development on serving:

- ELL students;
- Special education students;
- Struggling students; and
- Advanced students.

Fewer than half of MDC teachers and administrators attended professional development on serving:

- ELL students; and
- Special education students.

Overall, across both initiatives, teachers and administrators attended professional development with similar content. However, a higher percentage of administrators attended professional development that focused on implementing the CCSS.

Not all of the professional development content provided to educators matched their needs. Educators indicated a desire for more assistance in implementing the tools.

- More than 65% of responding school and district administrators wanted more professional development in all areas.
- Additional professional development focused on differentiating both LDC and MDC instruction was most frequently identified as an unmet need in the following areas:
    - Addressing student needs;
    - Implementing modules with below grade level/struggling students; and,
    - Implementing lessons with special education students.

iv. Collaboration

RFA's prior research has identified collaboration as essential for supporting tool implementation.

Throughout the three years of LDC and MDC implementation, teachers have reported valuing opportunities to collaborate with peers around tool use and that their colleagues have been important supports. Collaboration takes place in a number of ways across the initiative. In some sites, time for collaboration is an aspect of formal, scheduled professional development. Other sites provide teachers with time to collaborate on module development. LDC and MDC collaboration takes place during planning time, in Professional Learning Communities or department meetings, and informally during lunch time, after-school or in the hallway between classes.

Our 2012-13 survey findings support this; nearly 90% of LDC and MDC teachers reported that collaboration with colleagues helps them effectively use tool strategies and better support student learning.

Collaboration on Tool Implementation

Nearly 80% of LDC teachers reported that collaborating helps them to:

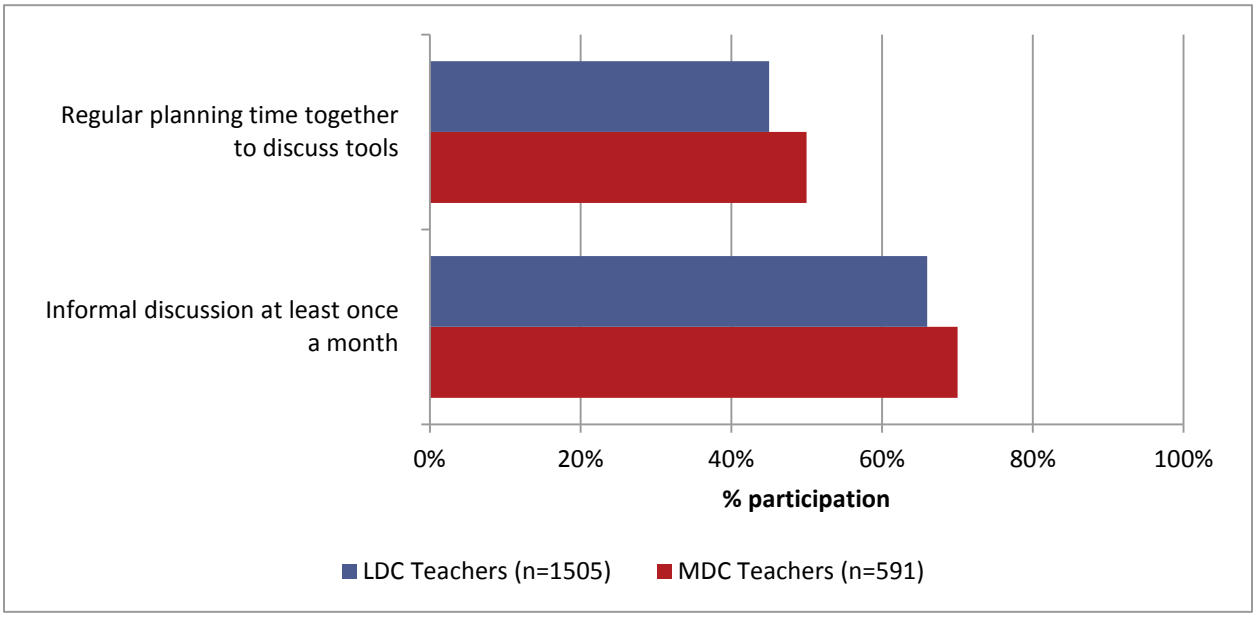
- Teach modules;
- Revise modules;
- Develop modules;
- Use the LDC Framework rubric;
- Use student products to inform instruction; and,
- Provide feedback to students about their writing.

Nearly 90% or more of MDC teachers reported that collaborating helps them to:

- Implement Classroom Challenges;
- Review pre-assessments;
- Facilitate group work;
- Facilitate plenary and whole group sessions;
- Identify math misconceptions;
- Determine where to use MDC in the curriculum; and,
- Develop feedback questions.

Figure 25 presents teacher responses regarding the amount of time they spend collaborating with other educators on tool development and/or implementation.

Figure 25. Teacher Participation in Different Types of Collaboration



- Fewer than half (LDC) or half (MDC) of teachers do not have organized time to work or collaborate together as part of their regular schedules. However, two thirds (LDC) or more (MDC) report having informal discussions about tool implementation.
- MDC teachers reported slightly more regular planning time than did LDC teachers.

Interviewees reported struggles finding time for teachers to collaborate due to limited resources.

- One State-level interviewee explained: *I think the challenge has always just been pure relief time. We are a state, just like some of the others that you're going to be talking to, that our staff development time, our planning period, everything has been dramatically diminished in the economic environment we're in. So, to find the time for teachers to collectively work together to share successes, to share lesson planning, it's all a challenge.*

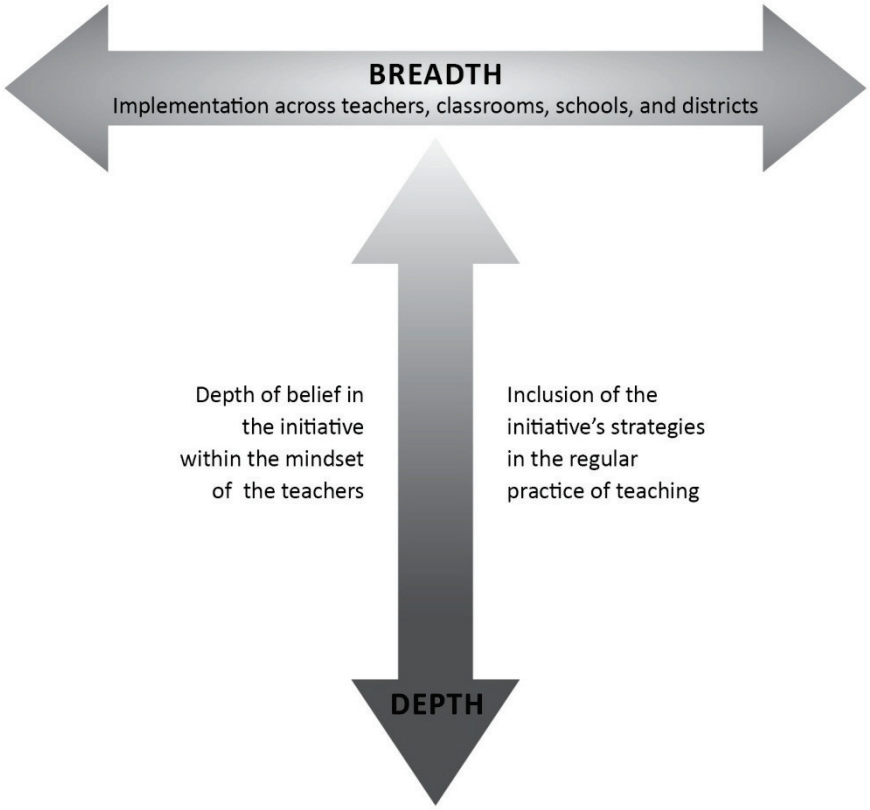
Interviewees noted considerable efforts to prioritize teacher collaboration.

- In one district location, all of the teachers have 24 hours of professional development by the specifications of their contract. That requirement has dovetailed nicely with accomplishing what they needed to do in terms of professional development related to LDC, and providing formal and informal opportunities for collaboration.
- One network that works on implementing the MDC tools requires that collaboration be built into the agreements with schools from the onset of a contract. They require schools to, at minimum, have weekly department meetings. This is a good way to ensure that teachers cover the critical elements of pre-lesson planning, during lesson observation, and post-lesson analysis.

Chapter 4: Status of the Scaling-Up of the LDC and MDC Initiatives

Within the world of educational reform, scale-up has been traditionally defined as an increase in the number of teachers, classrooms, schools, and/or districts implementing a particular model—the breadth of adoption. However, researchers have more recently stressed the need to also look at the depth of the scaling—the degree to which a reform is embedded within a school and targets "core" educational practices. Scale-up is represented graphically in Figure 26 below.

Figure 26. Elements of Scale-Up



Sustainability, vital to determining the ultimate success of an educational reform, is generally defined as the ability to effectively maintain the reform over time. Observing these characteristics—breadth and depth of implementation and supportive conditions that enable sustainability—provides us with evidence that the LDC and MDC initiatives are taking hold and likely to spread.

In the remainder of this chapter, we review the status of scale-up and sustainability across our survey sample, based on the definitions provided above. We organize this information into the scale-up categories of breadth and depth, and the sustainability categories of leadership endorsement and long-term viability as presented in Table 11.

Table 11. Evidence of Scale-up and Sustainability

SCALE-UP	Evidence:
BREADTH	Growth in tool use: • Among educators • Across districts • Within districts • Within schools • Within classrooms
DEPTH	Ideas and practices are gaining traction
	Teachers want to expand their tool use
	Teachers are transferring instructional strategies to non-LDC and non-MDC work
SUSTAINABILITY	**Evidence:**
LEADERSHIP ENDORSEMENT	Leadership is committed to the initiatives
	Personnel is in place to support tool implementers
	Teachers are compensated for tool-related professional development
LONG-TERM VIABILITY	Discussions of ongoing engagement
	Identifying funding sources

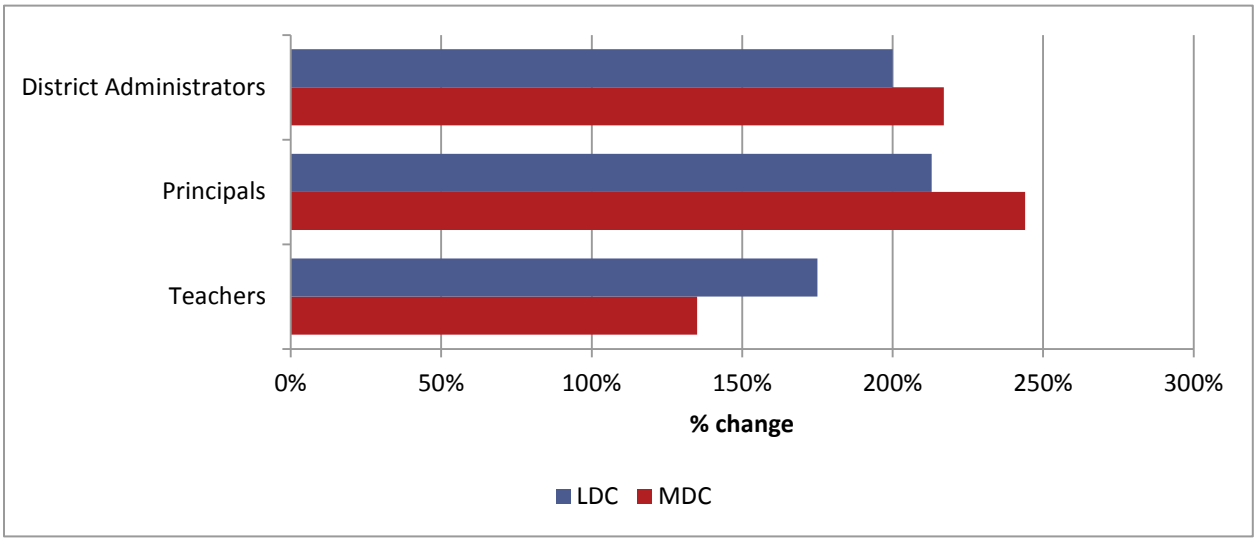
1. Scale-up: Breadth

We define "breadth" as growth in tool use across and within classrooms, schools, and districts. This happens as the number of participants involved in the initiative increases and as tool use among individual teachers increases.

A. Overall Increase in Number of Educators Participating in LDC and MDC

Our survey results revealed a significant increase in the number of educators participating in the initiative, as displayed in Figure 27 below.

Figure 27. Percent Change from 2011-12 to 2012-13 in Number of Educators Participating in the LDC and MDC Initiatives



The number of teachers and administrators participating in the initiative continues to rise, reflecting the expansion of tool use in classrooms, schools and districts.

- The number of teachers participating in both the LDC and MDC initiatives has more than doubled in the past year.
- The rise in principal and district administrator participation has been even more striking, with over 200% increases across both LDC and MDC.
- While the percentage change for LDC is larger than that of MDC, the increase in the number of administrators involved has been greater in MDC. This may be due to the fact that fewer administrators were involved in the earliest years of the initiative when expansion occurred within districts rather than across districts.

B. Breadth across Districts, Schools, and Classrooms

We can unpack this expansion in the section that follows by looking at growth across districts, schools, and classrooms in a number of ways:

- Total number of districts implementing the tools increases;
- Number of involved schools within districts increases;
- Number of involved teachers within schools increases; and,
- Individual teachers use the tools more in their practice.

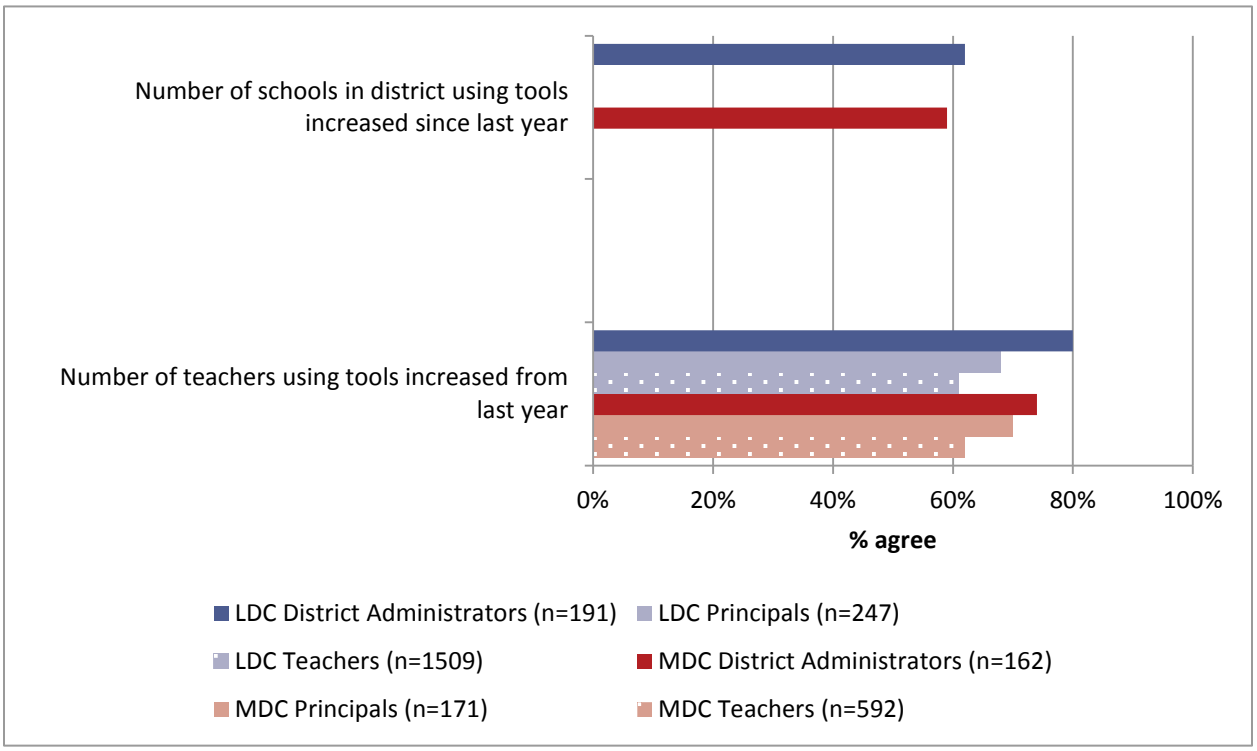
Most often, teachers are brought into both initiatives as part of a district adoption. However, some individual schools – and individual teachers – find the tools on their own and choose to pursue them. For example, the Pennsylvania State Department of Education included the LDC tools on their website for use by all teachers as a means of teaching the state standards.

- The number of districts implementing the initiatives has expanded. Survey responses were collected from 261 districts, representing all districts for which the Gates Foundation had been involved in the provision of tool-related professional development. While this does not capture the universe of new districts involved in the initiative, the higher number of districts represented in our survey sample demonstrates the rapid expansion of the initiative from the past two years.

C. Growth of School and Teacher Involvement

Figure 28 summarizes the growth of school and teacher involvement with LDC and MDC since 2011-2012.

Figure 28. Perceived Increase in the Number of Schools and Teachers Using the Tools: 2011-2012 to 2012-2013



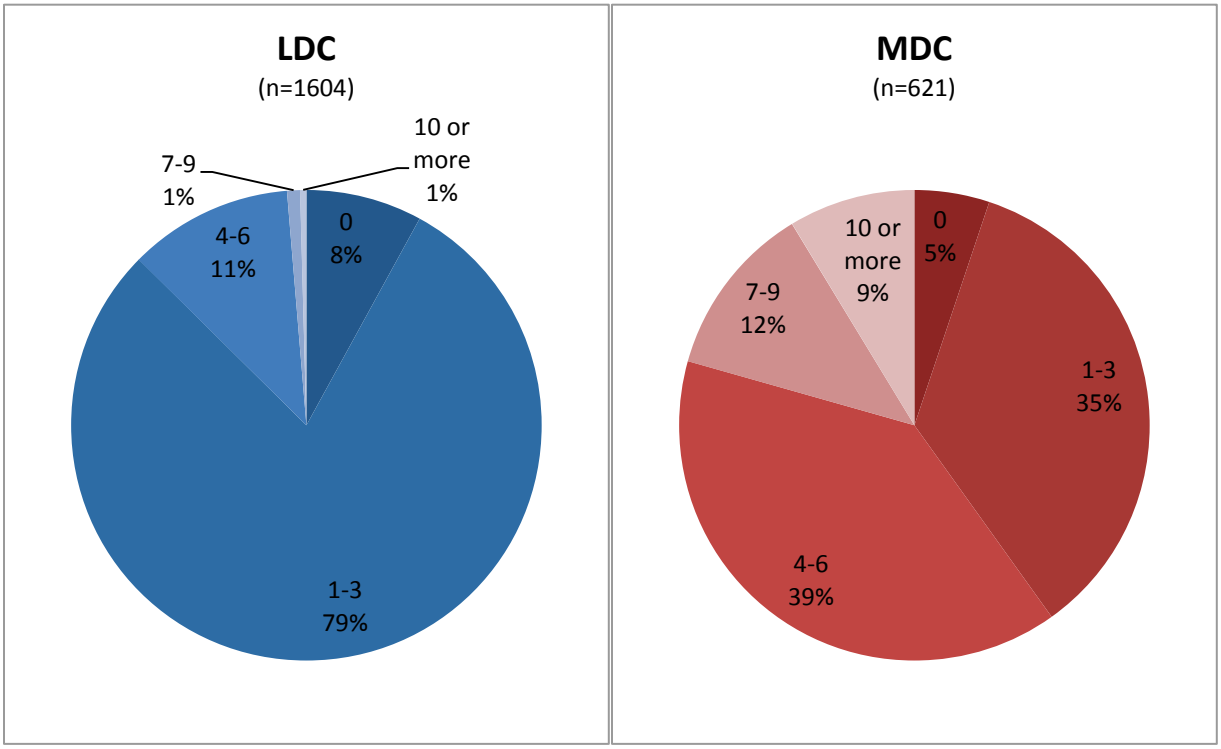
- The number of schools implementing the initiatives within districts has expanded. A majority of administrators responding to RFA's survey reported an increase in the number of schools using the tools within districts. (It is important to note that this number is likely understated as some districts are already implementing LDC and MDC in all eligible schools.)
    - MDC principals' and district administrators' responses are more closely aligned than those of LDC principals and district administrators. This may be due to the pace of implementation in various districts, as LDC is more reliant on a support system and, potentially, requires more targeted supports.
- The number of teachers implementing the initiatives within schools has expanded. Strong majorities of teachers, principals, and administrators report that more teachers are involved in the initiative.

Based on district leadership and POC interview data, the strategies to scale the tools broadly vary across districts. Within our study sites, one district started with a pilot group across grades and then scaled district-wide in later years. In another district, the scaling strategy began with one grade and subject and then expanded, grade by grade, in particular subjects. Other district strategies included scaling as schools appeared ready for participation or even pulling back from some schools or classrooms to refocus efforts.

D. Teacher Use of Tools

Figures 29 and 30 present a snapshot of the numbers of modules and Classroom Challenges that individual teachers are utilizing.

Figures 29 and 30. Numbers of LDC Modules and MDC Classroom Challenges Taught in 2012-13 School Year



MDC teachers tended to use more tools than did LDC teachers—not surprising given the greater length of the LDC modules.

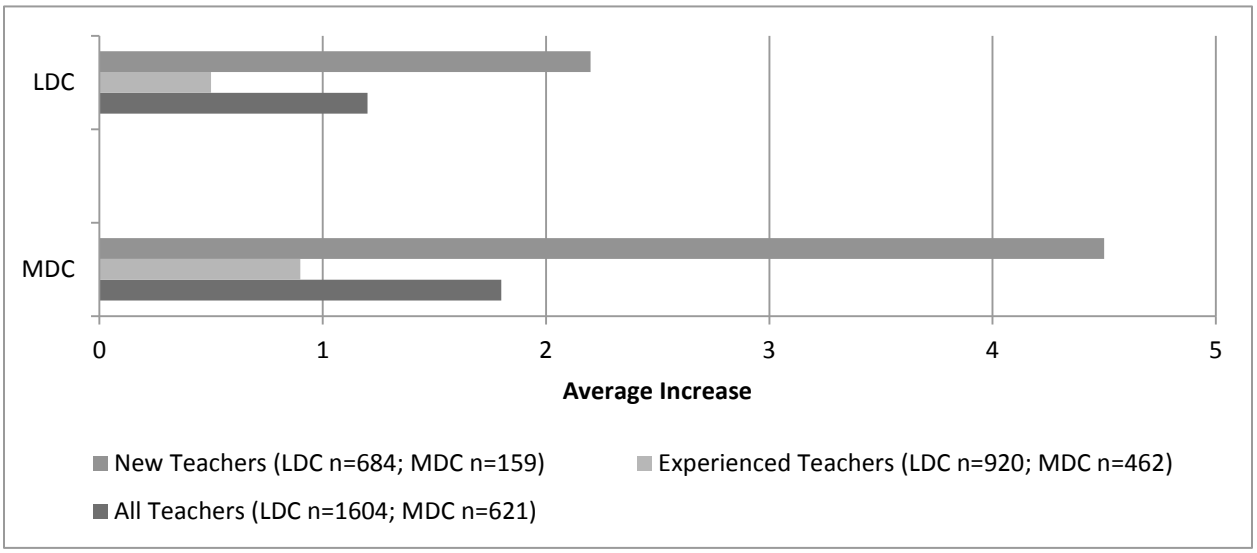
- Nearly 80% of LDC teachers taught 1-3 modules; only 11% taught 4-6; and,
- Thirty-nine percent of MDC teachers taught 4-6 modules; and 35% taught 1-3.

Strategies for scaling the tools deeply varied across our study sites. According to District Administrators, some districts provided set expectations regarding the frequency of tool use while others were more flexible, allowing these decisions to be made at the school and classroom-levels.

E. Scale-Up within Classrooms

We calculated the average increase in number of tools used from 2011-12 to 2012-13 overall, and by New and Experienced teachers. Figure 31 presents the results of this analysis.

Figure 31. Average Increase from 2011-12 to 2012-13 in Number of LDC Modules and MDC Classroom Challenges Taught



On average, teachers embedded the tools into their practice more often in 2012-2013. As described above, breadth can be considered within the classroom in addition to outside the classroom.

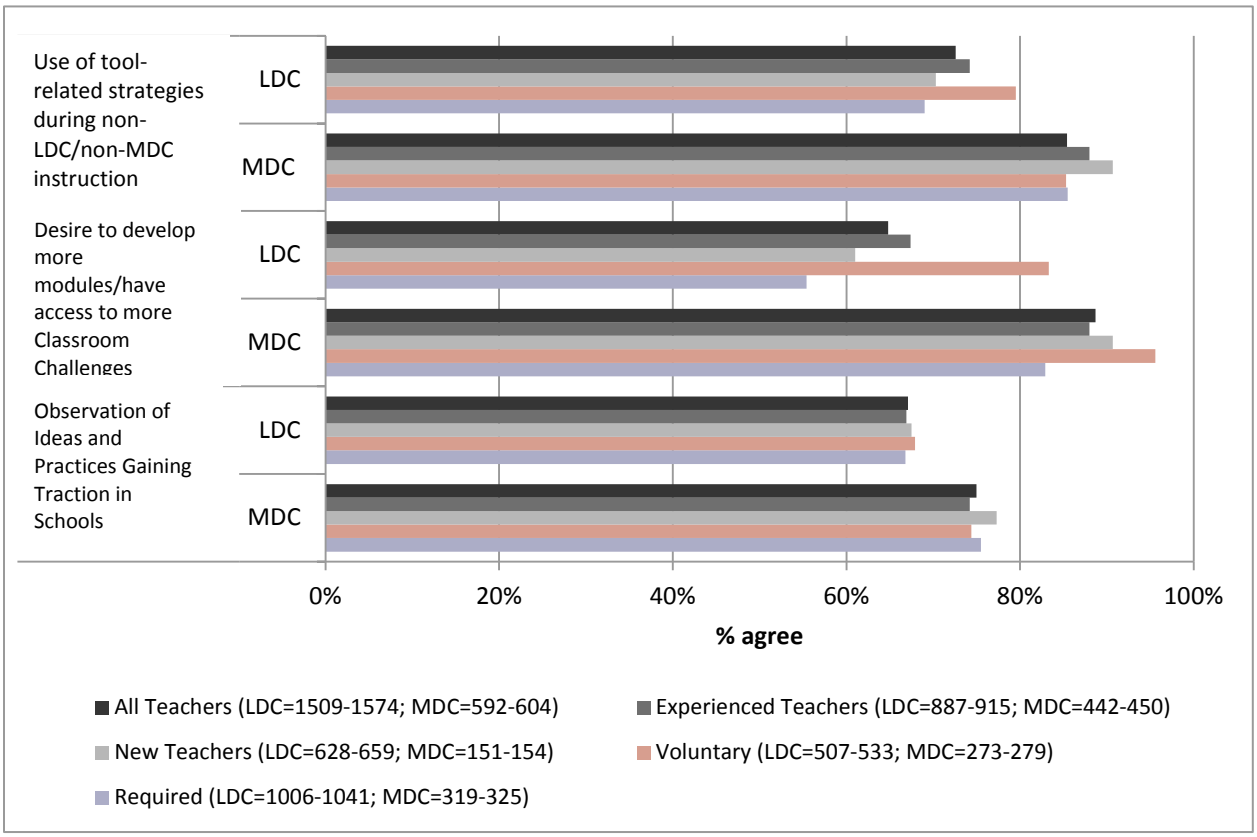
- The average number of LDC modules and MDC Classroom Challenges taught has risen over the past year.
- The expansion of MDC tool use is reported to be accelerating at a higher rate than LDC.
- Increase in tool use among new teachers is more rapid than that of experienced teachers in both initiatives.

2. Scale-Up: Depth

We define depth as a move toward belief in the initiative within the mindset of teachers, and inclusion of the initiative's strategies in the regular practice of teaching. Our survey provides evidence that, indeed, the initiatives are deepening: teachers see the ideas and practices gaining traction in their schools; they express their desires to expand upon their tool use; and they are transferring LDC and MDC instructional strategies to non-tool instruction. In interviews, district leadership explained that strategies to scale the tools deeply varied across our study sites. Some districts provided a clear set of expectations regarding the frequency of tool use while others were more flexible and less specific, allowing these decisions to be made at the school level.

Figure 32 presents depth of tool use broken out across all teachers, new and experienced teachers, and teachers for whom participation in LDC or MDC is voluntary or required.

Figure 32. Depth of Tool Use



Teachers are using tool-related strategies during non-LDC and non-MDC instruction.

- A significantly higher percentage of MDC teachers reported using the strategies outside of MDC instruction than LDC teachers.
- Voluntary LDC teachers were far more likely to report using the strategies outside of LDC instruction than any other category of LDC teacher.
- A very strong majority of new MDC teachers reported that they use tool-related strategies during non-MDC instruction.

A majority of teachers would like to continue their involvement with the LDC and MDC initiatives. Responses from LDC and MDC teachers differ in a number of ways:

- Higher percentages of MDC teachers want access to more lessons than LDC teachers.[7]
    - Caveat: While some districts and networks encourage LDC teachers to develop modules, other districts elect to develop modules centrally, and the LDC teacher role is more confined to revising the modules, and/or teaching the modules.
- An overwhelming majority of voluntary MDC teachers indicated that they would like to access more modules next year.

[7] It is important to note that the indicator used to demonstrate LDC teachers' desire to expand upon their tool use is their desire to develop modules. This is a heavy lift, and it is possible to remain involved with the initiative by revising and teaching modules, or only teaching modules. Further, there are districts in which teachers are not being asked to develop modules, just implement them.

- Higher percentages of voluntary LDC teachers reported using tool-related strategies during non-LDC instruction than required LDC teachers.
- A very strong majority of new MDC teachers reported that they use tool-related strategies during non-MDC instruction.

Two-thirds of responding LDC teachers and three-quarters of responding MDC teachers reported that the tools are gaining traction in their schools.

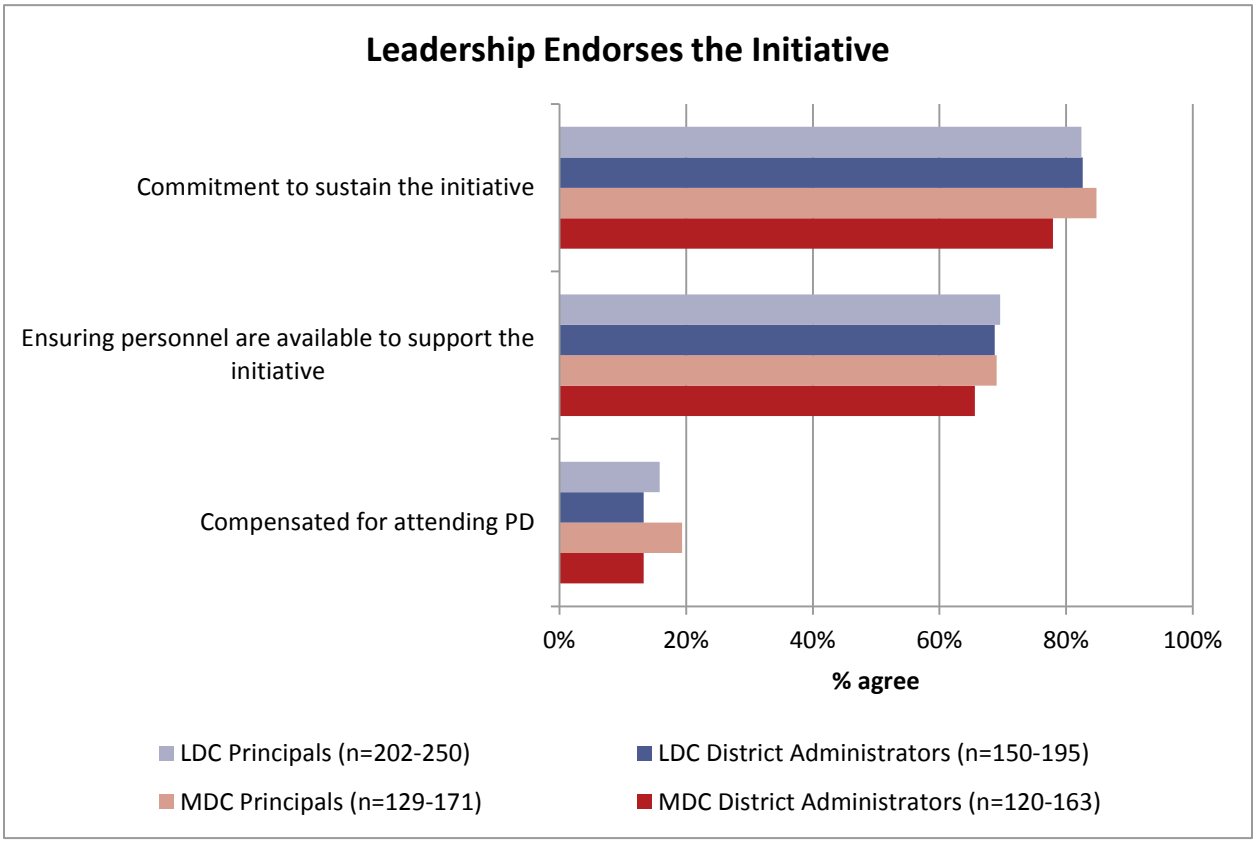
- Once again, we see a higher percentage of MDC teachers responding positively to queries about tool use.
- Within each initiative, results vary little by type of teacher.

3. Sustainability: Leadership Endorsement

Leadership Endorsement is defined by expressed commitment to the initiative and the provision of supports for successful implementation. Survey results suggest that leaders are committed and they are supporting the initiatives – by providing dedicated personnel to work with teachers on tool implementation, as well as compensation for teachers participating in professional development.

Figure 33 summarizes LDC and MDC principals' and district administrators' endorsement of the initiative.

Figure 33. Leadership Endorses the Initiative



A strong majority of responding principals and district administrators involved with both initiatives agreed that they are committed to sustaining them. There are no major differences among the responses of school and district leadership.

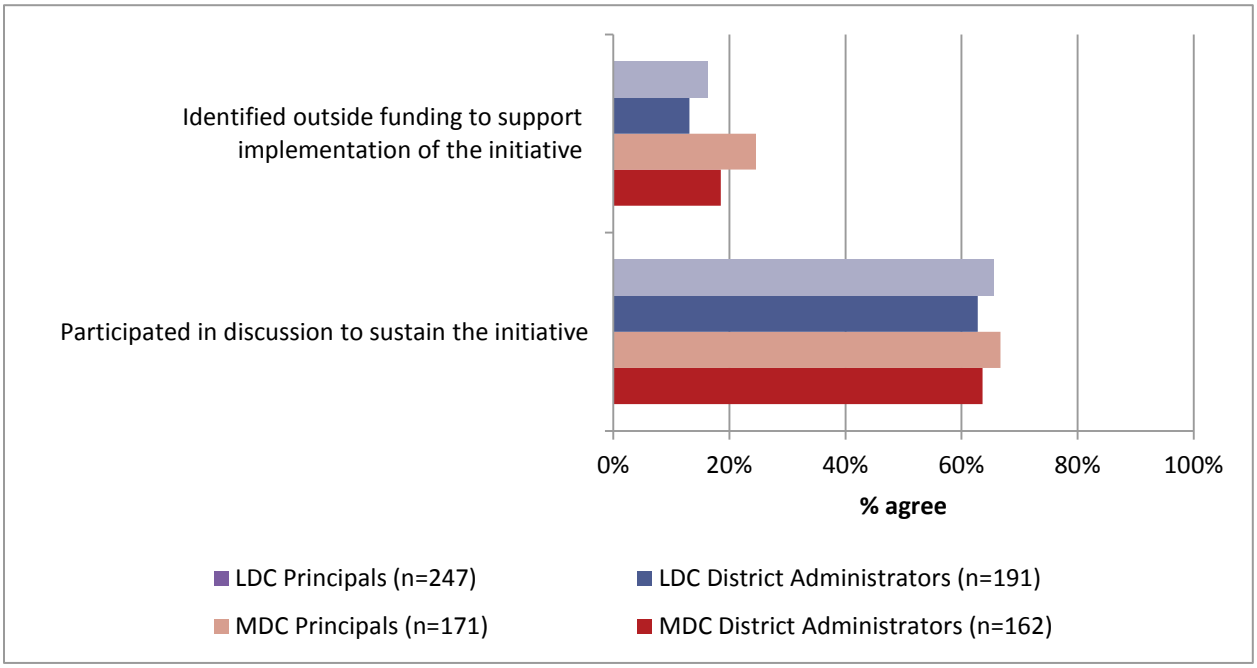
- Teachers' assessment of leaders' commitment to the initiative were somewhat less positive than the administrators' self-reports.[8]
- Less than 20% of LDC and MDC teachers indicated that they received compensation for attending professional development on the initiative.
- Actions in support of the initiatives lag behind administrators' reports of commitment to sustain the initiative.
    - While approximately 80% of teachers and administrators agree that there is a commitment among leadership to sustain the initiative, only two-thirds of administrators reported that their districts have personnel in place to support the initiative, and approximately half of LDC districts and just over half of MDC districts are compensating their teachers for attending professional development related to the tools.

4. Sustainability: Long-Term Viability

Commitment to the long-term success of the initiatives is presented as evidence that leadership is taking steps to ensure that the initiatives will continue into the future.

Figure 34 presents two indicators of long-term viability of the initiatives as reported by principals and district administrators.

Figure 34. Long-Term Viability of the Initiatives



[8] Approximately three-fifths of responding LDC teachers (62%, n=1509) and less than three-quarters of responding MDC teachers (70%, n=592) agreed that administrators are committed to sustaining the initiative.

- Approximately two-thirds of responding principals and district administrators reported participating in discussions to sustain the LDC/MDC initiatives over the long term.
- However, a much smaller percentage of administrators are making progress in identifying outside funding sources for LDC and MDC implementation.

Identifying outside funding sources for LDC and/or MDC remains a challenge across leadership levels in the districts and states. However, LDC/MDC district leaders did report a number of strategies to sustain the initiatives. These include: combining multiple outside funding streams; making tools available at a fee per service; and, incorporating the LDC and/or MDC tools into district-wide practice (with professional development hours counting towards continuing technical assistance for teachers).

In the following chapter, we further investigate scale-up and sustainability of the initiatives by considering how the supporting conditions influence growth of the initiatives.

Chapter 5: Supporting Conditions Influence LDC and MDC Scale-Up

In this chapter, we move beyond our report on the status of LDC and MDC scale-up, and investigate the circumstances that affect the continued growth of the initiatives. Turning back to our theory of action, we test how the "supporting conditions" identified as necessary for robust implementation influence scale-up.

The indicators presented in Table 12 quantify the extent to which scale-up is taking place across our survey sample. As presented below, these indicators are organized both by level (i.e., individual teacher, school) and by the scale-up categories of breadth and depth.

Table 12. Indicators of Scale-Up of the LDC and MDC Initiatives

INDIVIDUAL TEACHER LEVEL	SCHOOL LEVEL
BREADTH	
• Increase in tool use • Plans for expansion of tool use • Plans for continued tool use	• Teacher involvement is increasing within schools • Teachers are sharing tool-related content with non-participating educators
DEPTH	
• Increase in use of tool-related strategies outside of tool use • Plans to improve upon current practice related to tool use	• Tool-related ideas and practices are gaining traction in schools •

In this set of analyses, we look at the relationship between the presence of the supporting conditions and evidence of scale-up. When a condition is influential, we see responding teachers and/or administrators who agreed that the condition was in place in their school or district location reporting stronger evidence of scale-up.

Table 13 presents an overview of elements of the supporting conditions and how they relate to scale-up in terms of breadth and depth.

Table 13. Supporting Conditions and How They Relate to Scale-Up in Terms of Breadth and Depth

How to interpret this table	
●●●●	A strong relationship
●●●	More modest but still positive relationships
●●	Very modest but positive relationships
	No relationship

CONDITIONS	BREADTH	DEPTH
Alignment		
• CCSS	●●●●	●●●●
• School curriculum	●●●●	●●●●
• State Assessments	●●●●	●●●●
Leadership		
• Schools	●●●	●●●
• Districts	●●●	●●●
Professional Learning Opportunities		
• Formal Professional Development		●●●
• Scheduled Planning Time		●●●
• Collaboration	●●●●	●●●●

Overall, the supporting conditions appear to be influencing scale-up. Our findings reveal that the most influential supporting condition is alignment. Strong leadership, which is tied to alignment in many ways, follows.[9] PLOs emerge as the least influential supporting condition overall. However, collaboration, an important form of professional learning opportunity, notably supports scale-up.

1. The Relationship between Alignment and Scale-Up

Alignment in the LDC and MDC initiatives refers to the ways in which the tools were designed to operationalize the CCSS. In addition to being aligned to the CCSS, the tools are meant to be aligned with other school curricula in the locations where they are being used, and aligned to the state and local assessments. These three aspects of alignment are considered essential to the successful implementation and scale-up of the tools. Table 14 lays out the relationships between teachers reporting the presence of alignment with CCSS, school curriculum, or state assessments, and breadth and depth of tool use in their schools and districts.

Table 14. The Relationship between Alignment and Scale-Up

Teachers agree that the tools are aligned with:		CCSS	School Curriculum	State Assessments
Breadth				
At the individual teacher level:				
• Average increase in tool use by individual teachers	LDC			
	MDC		●●●	●●●
• Plans for expansion of tool use among individual teachers	LDC	●●●●	●●●●	●●●●
	MDC	●●●●	●●●●	●●●●
• Plans for continued tool use	LDC	●●●●	●●●●	●●●●
	MDC	●●●●	●●●●	●●●●

[9] District leadership plays a more central role in scale-up of the MDC initiative than school leadership.

• Plans to improve upon current practice related to tool use	LDC	
	MDC	
At the school level:		
• Teacher involvement is rising	LDC	
	MDC	
Depth		
At the individual teacher level:		
• Increase in use of tool-related strategies outside of tool use	LDC	
	MDC	
At the school level:		
• Tool-related ideas and practices are gaining traction	LDC	
	MDC	
• Teachers are sharing tool-related content with non-participating educators	LDC	
	MDC	

There is strong and consistent evidence that alignment is robustly related to successful scale-up of the tools. Across three dimensions of alignment (alignment with the CCSS, alignment with school curriculum, and alignment with state assessments), responding teachers who agreed that alignment was in place in their school/district location reported at higher percentages that they were broadening and deepening their tool use. Given that alignment to state assessments is expected to lag behind alignment to CCSS and school curriculum, the use of student outcomes in teacher evaluation systems is likely to be problematic.

A. Breadth

At both the individual teacher level and the school level, there are signs that strong alignment is related to expansion of tool use. When teachers perceive strong alignment, they are more likely to report:

- Their plans for sustained or greater tool use;
- Their plans to improve upon their current practice related to tool use; and,
- Observing a rise in teacher involvement.

While MDC teachers who perceived strong alignment also taught more Classroom Challenges, there was no difference in the number of modules taught by LDC teachers based on perceptions of alignment. This is not surprising given that embedding modules in classroom practice is a larger commitment for teachers than embedding Classroom Challenges. Further, in many sites districts designate how many modules teachers will implement.

B. Depth

At both the individual teacher level and the school level, there are signs that strong leadership is related to deepening of tool use. When teachers perceive strong alignment, they are more likely to report:

- Use of LDC and MDC strategies during non-LDC or non-MDC instruction;
- Evidence that the ideas and practices of the tools are gaining traction in their schools; and,
- Sharing their modules or Classroom Challenges with teachers not participating in the initiatives.

2. The Relationship between Leadership and Scale-Up

Effective leaders at all levels, including the school, district/network, region, and state, need to champion and guide the initiatives and provide needed resources and training and help teachers understand how the initiatives fit into an overall plan for educational improvement. The analysis presented in Table 15 displays how the existence of strong leadership, at both the school and the district levels, relates to scale-up.

Table 15. The Relationship between Leadership and Scale-Up

Teachers agree that strong leadership exists at their:		Schools	Districts
Breadth			
At the individual teacher level:			
• Average increase in tool use by individual teachers	LDC		●●●
	MDC		●●
• Plans for expansion of tool use among individual teachers	LDC	●●●	●●●
	MDC		●●
• Plans for continued tool use	LDC	●●●	●●●
	MDC	●●●	●●
• Plans to improve upon current practice related to tool use	LDC		●●●
	MDC		●●
At the school level:			
• Teacher involvement is rising	LDC	●●●●	●●●●
	MDC	●●●●	●●●●
Depth			
At the individual teacher level:			
• Increase in use of tool-related strategies outside of tool use	LDC	●●●	●●●
	MDC		●●
At the school level:			
• Tool-related ideas and practices are gaining traction	LDC	●●●●	●●●●
	MDC	●●●●	●●●●
• Teachers are sharing tool-related content with non-participating educators	LDC	●●	
	MDC	●●●	

There is clear evidence that strong leadership is noticeably related to successful scale-up of the tools. Responding teachers who agreed that strong leadership exists in their schools and districts reported at higher percentages that they were broadening and deepening their tool use.

A. Breadth

At both the individual teacher level and the school level, there are signs that strong leadership is related to expansion of tool use. When teachers perceive strong alignment, they more often report:

- Their plans for sustained or greater tool use; and,
- Observing a rise in teacher involvement.

For the most part, strong leadership appears to have less influence over the expansion of the MDC initiative than the LDC initiative.

B. Depth

At both the individual teacher level and the school level, there are signs that strong leadership is related to deepening of tool use. When teachers perceive strong leadership, they are more likely to report:

- The initiatives inform ideas and practice outside of tool use;
- Use of strategies during non-tool related instruction; and,
- Sharing tools with those not in the initiative.

Strong leadership appears to be closely related to depth of tool use. For example, MDC teachers that perceived strong leadership:

- Observed the ideas and practices of MDC gaining traction in their schools; and,
- Shared tools with teachers outside the initiative at higher rates.

3. District Leadership versus School Leadership

Strong district leadership appears to be more closely related to successful scale-up than school leadership. This was seen across a number of indicators, including:

- Changes in the reported number of modules or Classroom Challenges implemented by LDC or MDC teachers;
- The increase in the number of teachers implementing modules or Classroom Challenges; and,
- Teachers' observations that the ideas and practices of the initiatives were gaining traction in their schools.

4. The Relationship between Professional Learning Opportunities and Scale-Up

Teachers and leaders strongly benefit from meaningful and ongoing professional development and technical assistance to understand the purpose of the tools, implement the tools in their classrooms, and refine their practices as they moved forward. Both formal professional development sessions and more informal collaboration between teaching colleagues should occur on a regular basis. The three main forms of PLOs are: formal professional development, scheduled planning time to discuss the tools, and time for collaboration. Table 16 lays out the relationship between breadth and depth across the varieties of PLOs.

Table 16. The Relationship between PLOs and Scale-Up

Which Professional Learning Opportunities Exist:		Formal Professional Development	Scheduled Planning Time	Collaboration
Breadth				
At the individual teacher level:				
• Average increase in tool use by individual teachers	LDC			●●●●
	MDC			●●●●
• Plans for expansion of tool use among individual teachers	LDC			●●
	MDC			●●
• Plans for continued tool use	LDC	●●		●●●
	MDC			●●
• Plans to improve upon current practice related to tool use	LDC			●●●
	MDC			
At the school level:				
• Teacher involvement is rising	LDC	●●●●	●●●●	●●●●
	MDC	●●●●	●●●●	●●●●
Depth				
At the individual teacher level:				
• Increase in use of tool-related strategies outside of tool use	LDC	●●●	●●	●●●
	MDC	●●●		●●
At the school level:				
• Tool-related ideas and practices are gaining traction	LDC	●●●●	●●●●	●●●●
	MDC	●●●	●●●	●●●●
• Teachers are sharing tool-related content with non-participating educators	LDC			
	MDC			

It is important to note that our review of PLOs does not speak to the content of the available opportunities. While access is extremely important, the quality of the opportunity is of equal importance.

There is evidence that the availability of PLOs supports aspects of scale-up in targeted ways. However, the overall influence of PLOs on scale-up is weaker than that of alignment and strong leadership.

A. Breadth

Collaboration was the mode of PLO most consistently and strongly related to indicators around tool expansion. For example, many teachers who agreed that they had time for collaboration reported:

- An increase in the number of tools used in the past year; and,
- Their desire to continue and expand tool use.

All types of PLO are strongly related to an increase in teacher involvement across both initiatives.

B. Depth

All types of PLO appear to influence teacher instructional practice outside of tool use. Many of the teachers that had access to PLOs reported:

- They used LDC and MDC strategies during non-LDC or non-MDC instruction; and,
- Observed the ideas and practices of MDC gaining traction in their schools.

However, sharing tools with non-participating teachers did not appear to be closely related to any of the three modes of PLOs.

One State-level interviewee pointed out the scaling strategy of teachers sharing with other teachers. *We … know the best leverage for getting other teachers to implement is by saying another teacher that they respect and trust doing it in their own classroom.*

However, she also voiced her concern that scale-up would result in the tools not being implemented as intended. *We are working with about three English/Language Arts and three mathematics teachers directly in most all of our districts and … the charge is on that group of teachers, which is probably around 1,200 or so statewide, to scale to 44,000 teachers.*

Chapter 6: Conclusion and Recommendations

Conclusion

As the reach of the MDC and LDC initiatives extends, we continue to see robust implementation in place. Table 17 represents the status of implementation of the LDC and MDC initiatives in the 2012-13 school year.

How to interpret this table	
●●●	Clear evidence that the statement is true
●●	Modest evidence that the statement is true
	No evidence that the statement is true

Table 17. Implementation of LDC and MDC in 2012-13

ROBUST IMPLEMENTATION INDICATOR	LDC	MDC
Teacher Beliefs and Knowledge:		
• Teachers believe in the underlying principles of the tools	●●●	●●●
• Teachers exhibit high levels of buy-in to the initiative	●●●	●●●
• Teachers know how to use the tools	●●●	●●●
Classroom Changes:		
• Teachers use tools effectively	●●	●●●
• Students exhibit engagement during tool use		●●
• Teachers perceive improvement in student learning	●●●	●●●

As depicted above, our survey results provide evidence that teachers believe in the utility of the tools and, for the most part, know how to use them effectively to support student learning.

This is not surprising given the evidence that a number of important conditions are in place to support the initiative. Table 18 presents findings on the existence of conditions which support robust implementation.

Table 18. Conditions that Support Robust Implementation

SUPPORTING CONDITION INDICATOR	LDC	MDC
Alignment:		
• With CCSS	●●●	●●●

• With state assessments	●●	●●●
• With school curriculum	●●●	●●●
Strong Leadership:		
• At school level	●●	●●
• At district level		●●
PLOs:		
• Formal Professional Development	●●●	●●●
• Scheduled Planning Time	●●	●●
• Collaboration	●●●	●●●

Here we see that, while evidence of supporting conditions exists for many educators involved in tool development and implementation, a substantial minority of educators are implementing the tools under less than optimum circumstances that may not bolster their work.

We also have evidence that tool use is expanding and becoming more embedded in teachers' instructional practice. Table 19 presents evidence of scale-up and sustainability of the initiative.

Table 19. Scale-Up and Sustainability

SCALE-UP AND SUSTAINABILITY INDICATOR	LDC	MDC
Scale-UP:		
• Breadth	●●●	●●●
• Depth	●●●	●●●
Sustainability:		
• Leadership endorsement	●●	●●●
• Long-term viability	●●	●●

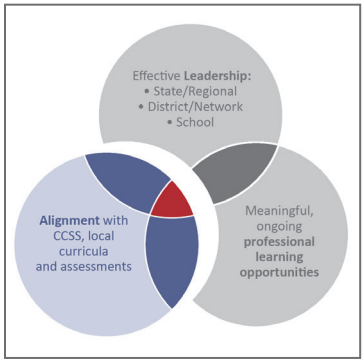
While there is strong evidence of scale-up, the findings are more mixed when considering sustainability of the initiative. Leadership is generally supportive of the initiatives, but has not demonstrated movement toward the tools' long-term financial viability as few school leaders report playing a role in finding additional funding and reallocating funds to the LDC and MDC initiatives.

Recommendations to Ensure Supportive Conditions for Scale-Up

Our research findings on the conditions for successful scale-up and sustainability suggest a number of recommendations that can help inform decisions regarding continuing and expanding use of the tools moving forward. Here, we offer these recommendations for consideration by key stakeholders seeking

to further develop LDC and MDC tool use as a means of supporting teachers in their efforts to improve their practice and support students attain the CCSS and become college and career ready. The recommendations presented below are organized by the supporting conditions.

Alignment



Encourage CCSS-aligned instruction in classrooms and clearly articulate its connection to state and local policies.

- Our research shows that broader and deeper use of the LDC and MDC tools is most likely to happen when teachers believe that the tools are aligned with the CCSS. Efforts should be made by administrators across all levels to make the connection between tool use and the CCSS, explaining how robust implementation of the tools is a means for teachers to move students toward achievement of the CCSS. This can be further reinforced by making explicit the connections between implementation of the tools and other state and local policies, such as state assessments and teacher evaluation.

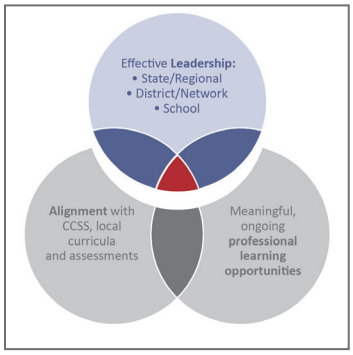
Address alignment between tools and state assessment and accountability systems.

- While high percentages of teachers and administrators agreed that the tools are aligned with the CCSS, fewer agreed that the tools are aligned with state assessments as most states have not made the transition to strictly covering CCSS content. This is especially problematic as teachers and administrators are often held accountable for their students' performance on state assessments, regardless of the lack of alignment between the tests and the CCSS. Although critical to ensure appropriate use of student outcomes in teacher evaluation systems, tool alignment to assessments is likely to continue to lag behind alignment to CCSS. Working toward an assessment system in which students are evaluated on the CCSS and, correspondingly, teachers are held accountable based on their students' progress, is likely to lead to more success in tool implementation and scale-up and sustainability of the tools.

Coordinate tool implementation and scale-up with existing curricula.

- A struggle for educators in successfully implementing the tools is incorporating them into the required curriculum. District administrators can play a vital role in facilitating tool use by ensuring that teachers understand: the purposes of the tools; how the tools should work hand-in-hand with the curriculum; and, where best to place the tools in the overall pacing of instruction.

Leadership



Include principals and other school-based leaders in the work of scaling the tools.

- To achieve the alignment which enables successful use of the tools, principals can play a substantive role in creating the environments that foster effective teacher practice. Principals can support tool implementation by taking an active role as "instructional leaders" in their schools, either working directly with teachers on tool implementation, or empowering talented personnel (e.g., coaches, lead teachers) to guide teachers' practice. Principals can also help to ensure that teachers have the necessary time to work together to implement the tools.

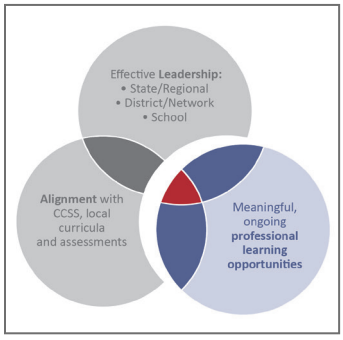
Ensure a strong district/network staffing and coordination strategy for scale-up.

- Over three years of research on this initiative, district staff has played a central role in supporting the implementation and scale-up of the tools. Our most recent research reveals that district leadership is especially important for scaling the LDC initiative. In addition to providing support to teachers in the form of professional development, allowing time for collaboration, and providing ongoing technical assistance, district staff are also in a position to plan for the future (e.g., identifying financial support for the initiatives).

Look for opportunities to increase regional and state capacity.

- As the use of the LDC and MDC tools is scaled across the country, states can learn from each other about the strategies they are using in increasing the breadth of implementation at the state and regional levels. For example, approaches to tool implementation and scale-up include: developing cadres of state-based professional development and technical assistance providers; involving the state education agency in both the implementation process and plans for current and future use of the tools; and leveraging regional education service centers as a resource to provide training and ongoing support.

Professional Learning Opportunities



Ensure that professional development is delivered in ways that are most accessible to teachers.

- A higher percentage of both LDC and MDC teachers reported participating in small group meetings than any other mode of delivery. This is good news as high percentages of teachers also rate this form of professional learning opportunity as effective. As additional trainings are planned, efforts should be made to incorporate similar smaller scale or personalized professional development. This is particularly important for LDC teachers and administrators.

Provide training that addresses the challenges educators face in implementing the tools.

- The training currently being provided does not address all the challenges faced by teachers and school leaders as they implement the tools. Differentiating instruction, including working with ELL, special education, and struggling students, was identified as an area worthy of more attention by both LDC and MDC teachers and administrators. As the tools are scaled, the content of training should match the needs of educators to ensure proper implementation resulting in improved student learning outcomes for all students.

Ensure ongoing opportunities for collaboration with peers.

- Our research provides evidence that, while collaboration is an essential component in implementing and scaling the tools, many teachers do not have regular time together to discuss tool development and implementation. Principals and district leaders should support teachers in scheduling time to work together as they learn to use the tools and continue to refine their practice.

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Appendix A. Data Sources and Methodology

Surveys were administered to teachers, principals, and district administrators in order to explore the conditions for implementation and scale-up of the Literacy Design Collaborative (LDC) and Mathematics Design Collaborative (MDC) Initiatives across the nation. Four types of surveys were administered: 1) an LDC survey for English Language Arts, Science, and Social Studies teachers; 2) an MDC survey for Math teachers; 3) a survey for Principals; and, 4) a survey for District Administrators.

Data sources for this report were comprised of survey data and interview data. The findings in this report are primarily based on survey analyses, however interview data was used if an area lent itself to further explication. The survey was administered to participating LDC and MDC teachers, principals, and district administrators to understand their experience with the initiatives in the 2012-2013 school year. Survey data were supplemented by targeted qualitative data sources, including interviews with LDC and/or MDC representatives in seven sites; interviews with state-level informants in eight states; interviews with three providers of professional development for MDC and LDC; observations at four professional development sessions; and interviews from two case study sites.

Survey Development

The four survey instruments for this study were devised from RFA's surveys from 2011-2012 to include similar questions that emphasized the implementation and breadth and depth of tool use. The purpose of these surveys was to obtain and describe school and district leaders' and teachers' perceptions of the LDC and MDC initiatives. The LDC and MDC surveys were developed to mirror one another as much as possible. A similar strategy was used in the development of the principal and district administrator surveys. Combined, all four surveys contained questions that would help address the research questions that guide this report.

Survey Administration

The four surveys were web-based and were administered to each participant via email using the survey software SNAP. The surveys were placed online for a month to six weeks, depending on the verification of bounced back email addresses. Weekly email reminders were sent to the participants and incentives in the form of $20 Amazon electronic gift cards were given to all participants who completed the survey.

Survey Sample Size Based on Convenience Sampling

The survey sample was based on convenience sampling. For the teacher sample, 67.5% of the sample was based on a nationwide list of 2011-12 teacher professional development participants provided by The Gates Foundation. The other part of the teacher sample (32.5%) was based on teacher participant lists provided by our contacts in some of the district sites RFA had closely studied in school years 2011-12 and 2012-13.

For the principal and district administrator samples, the participants were obtained from our contacts in eight states. It is important to note that in the reporting of results, particularly in the specific percentages reported, the numbers are based on this convenience sample and not based on the entire universe of the LDC or MDC initiative participants that exist across the country.

Response Rates

Table 1A lists the response rates for each of the four surveys. Specifically, the response rate was calculated as

(Number Responded)/(Number of Surveys Administered)

The Number Responded includes respondents who started the survey but might not have completed the whole survey while the Number of Surveys Administered excluded those with bounced back emails and respondents who declined to take the survey.

RFA has direct contacts with school leaders and administrators in certain school districts through a Memorandum of Understanding. Having direct contacts in these school districts likely has an impact on RFA's visibility in these districts. We analyzed response rates by whether the survey location was an RFA-known district site. As seen in the table, there appeared to be no effect on the response rates, they were equally high in both RFA-known sites and survey locations where there was no connection to RFA.

RFA analyzed the teacher response rates by whether they were in the 2011-12 professional development participant list provided by the Gates Foundation or not. Teachers who had not participated in professional development in 2011-12 were just as likely to respond to the survey.

Table 1A: Overall Response Rates

Survey	Overall Response Rate		
	%	Number of Surveys Administered	Number Responded
LDC	54.2%	3324	1801
MDC	59.6%	1239	739
Principal	39.3%	952	374
District Administrator	51.6%	498	257

Table 2A. Response Rate by RFA-Known site and 2011-12 professional development participant list

Survey	Response Rate %							
	RFA-known district site		No contact with district site		2011-12 PD participant list Provided by Gates Foundation		No in 2011-12 PD participant list	
	%	n	%	n	%	n	%	N
LDC	51.0%	1454	53.0%	1867	56.2%	1928	51.3%	1393
MDC	53.0%	859	74.7%	380	58.5%	1079	67.5%	160
Principal	37.1%	690	41.9%	248	NA	NA	NA	NA
District Administrator	44.5%	382	69.5%	95	NA	NA	NA	NA

Number of States and Districts Who Responded to the Surveys

Number of states = 24

Number of districts = 261

Below are the response rates by state for each of the four surveys administered.

Table 3A. Response Rates by State

Survey	State	Response Rate	
		%	N
LDC	AR	74.4%	43
	CA	47.6%	21
	CO	45.0%	100
	DC	38.2%	34
	DE	0.0%	1
	FL	39.9%	797
	GA	48.2%	384
	HI	0.0%	2
	IL	50.0%	2
	IN	41.2%	17
	KY	60.9%	1408
	LA	62.9%	62
	MD	100%	1
	MI	20.0%	10
	MO	100.0%	1
	NM	100.0%	1

Survey	State	Response Rate	
		%	N
	NY	45.0%	169
	OH	70.0%	20
	PA	80.2%	237
	TX	40.0%	10
	VA	100.0%	1
MDC	AK	66.7%	3
	AR	80.0%	15
	AZ	50.0%	2
	CA	70.0%	20
	CO	55.3%	76
	DC	70.0%	10
	DE	0.0%	2
	GA	50.0%	48
	IL	50.0%	2
	IN	40.0%	10
	KY	62.1%	869
	LA	70.0%	40
	MD	44.6%	65
	MI	37.5%	8
	MN	100.0%	2
	MO	0.0%	1
	NY	30.4%	46
	OH	83.3%	6
	OK	100.0%	2
	TX	72.7%	11
	WA	100.0%	1
Principal	AR	90.9%	11
	CO	43.6%	78
	FL	25.3%	75
	GA	0.0%	3
	KY	36.7%	640
	LA	40.0%	30
	NY	44.0%	75
	PA	65.4%	26
District Administrator	AR	57.1%	7
	CO	73.3%	15
	FL	66.7%	12
	GA	87.5%	8
	KY	43.7%	357
	LA	60.0%	20
	NY	70.5%	44
	PA	50.0%	14

Documentation of Scale-Up and Sustainability Survey Data Analysis

Below we describe how we handled some of the data issues that arose while analyzing the survey data, specially addressing duplicates, addressing missing IDs, and conducting cross-survey analyses.

Addressing Duplicates

1. Duplicates within the same survey, say within LDC survey or within principal survey were deleted. For these duplicate surveys, the copy of the survey where the respondent answered the most questions was kept for the analysis.
2. Duplicates across surveys were kept because the respondents were likely to have multiple roles and we want their opinion specific to specific roles.

Addressing Missing IDs (Not Deleted)

1. During the first day of the launch of the survey, there was a glitch in SNAP and some of the respondents were not given IDs.
2. These were included in the analyses using the assumption that they are unique and had not appear anywhere else in the survey data with an ID, or were the same as another missing ID person.
3. However, *these individuals could not be included in the crosstab for state or district* since this data was missing for them.

Here is the system for creating IDs for the missing IDs. The final survey dataset had IDs up to 7,000s, so the missing IDs would start from 8,000:

- LDC—3 missing—start IDs as 8,100
- Principal—14 missing—start IDs as 8,200
- District—21 missing—start IDs as 8,300

Cross Survey Analysis

1. Cross analysis between district administrator survey and teacher surveys
   - The mode of the district administrators' responses within each district was obtained. This mode was then linked to the teachers by the district the teachers were in
   - For example, in a crosstab of the district administrator survey and the teacher survey, it should be interpreted as *"For those teachers in districts whose administrators mostly (due to mode) agreed to—The LDC modules have been an important component of the overall curriculum in our schools this year, it was found that XX% of these teachers often used the strategies in non-LDC instruction."*

2. Cross analysis between principal survey and teacher surveys
   - A similar method was used for the cross-analysis of principal and teacher surveys. The mode of the principals' responses within each district was obtained and this was then linked to the teachers by the district the teachers were in.
   - A limitation of the cross-principal and teacher survey analysis is that the response rate for principal is low (at 39%). Hence, due to the missing data on the principal, the sample size for the cross analysis with the teacher survey is small.

Appendix B: Overview of the LDC modules and MDC Classroom Challenges

Table 1B. Overview of Modules and Classroom Challenges

	LDC Modules	MDC Classroom Challenges
Purpose	*Modules* are designed to: • teach content; • teach literacy in the content areas; • enhance formative assessment; • increase rigor; and, • operationalize the CCSS.	*Classroom Challenges* are designed to: • assess student understanding and misunderstanding; • enhance formative assessment; • increase rigor; and, • operationalize the CCSS.
Timing	Teachers decide where the module content and written product best fit into their curriculum.	*Classroom Challenges* to be used about ¾ way into a unit.
Duration	Modules often span 2-3 weeks.	*Classroom Challenges* are designed to be completed within 2 to 3 class periods.
Teacher Role	All content area teachers are also teachers of literacy. Modules do not prescribe a particular pedagogical approach.	Teachers facilitate learning by asking guided questions; encouraging students to reflect on their reasoning; allowing students to "productively struggle."
Student Role	• Students are expected to engage in rigorous reading and writing tasks. • Students need to support ideas with statements from reading texts. • Over the course of a module, students likely participate in whole class instruction, small group, and individual work.	• Students assume more responsibility for their own learning. • They engage in "productive struggling" with mathematical content. • Collaboration with peers is always central. • Students need to justify and explain mathematical thinking and reasoning.
Developer	Teachers develop and/or revise modules, sometimes in conjunction with district administrators, literacy coaches and subject area leaders.	The *Classroom Challenges* are externally produced by the Shell Centre.
Tool Characteristics	• Less prescriptive; • Longer in duration (average 2-3 weeks); • Can be shaped to fit classroom context; and, • More complex to design and implement; teachers face a greater learning curve in becoming adept tool users.	• More prescriptive; • Bounded/shorter (average 2-3 days); • Less room for instructional flexibility; and, • Straight-forward to implement, teachers can master more quickly.

Appendix C. Relationship of Scale-Up to Supporting Conditions

Table 1C. Alignment

Teachers agree that the tools are aligned with:		CCSS		School Curriculum		State Assessments	
Breadth							
At the individual teacher level:		Yes	No	Yes	No	Yes	No
• Average increase in tool use by individual teachers	LDC	2.4	2.4	2.4	2.6	2.4	2.6
	MDC	3.7	3.3	3.9	1.3	4.0	2.4
• Plans for expansion of tool use among individual teachers	LDC	67%	26%	70%	28%	74%	38%
	MDC	91%	38%	92%	52%	95%	65%
• Plans for continued tool use	LDC	75%	22%	79%	25%	84%	37%
	MDC	89%	28%	90%	44%	93%	57%
• Plans to improve upon current practice related to tool use	LDC	93%	68%	94%	71%	96%	78%
	MDC	97%	76%	97%	79%	99%	84%
At the school level:							
• Teacher involvement is rising	LDC	62%	42%	63%	42%	64%	51%
	MDC	63%	38%	65%	33%	66%	47%
Depth							
At the individual teacher level:							
• Increase in use of tool-related strategies outside of tool use	LDC	75%	41%	78%	42%	81%	50%
	MDC	87%	66%	87%	71%	87%	78%
At the school level:							
• Tool-related ideas and practices are gaining traction	LDC	69%	35%	72%	33%	74%	47%
	MDC	77%	31%	79%	29%	81%	50%
• Teachers are sharing tool-related content with non-participating educators	LDC	56%	13%	51%	26%	53%	32%
	MDC	61%	24%	62%	27%	64%	38%

Table 2C. Leadership

Teachers agree that strong leadership exists at their:		Schools		Districts	
Breadth					
At the individual teacher level:		Yes	No	Yes	No
• Average increase in tool use by individual teachers	LDC	2.3	2.4	2.4	1.5
	MDC	3.5	3.5	3.6	3.3
• Plans for expansion of tool use among individual teachers	LDC	68%	51%	68%	58%
	MDC	89%	84%	89%	80%
• Plans for continued tool use	LDC	74%	59%	76%	61%
	MDC	87%	77%	86%	80%
• Plans to improve upon current practice related to tool use	LDC	93%	84%	93%	78%
	MDC	96%	93%	96%	87%
At the school level:					
• Teacher involvement is rising	LDC	65%	43%	66%	39%
	MDC	66%	36%	67%	27%
Depth					
At the individual teacher level:					
• Increase in use of tool-related strategies outside of tool use	LDC	75%	63%	77%	65%
	MDC	86%	81%	87%	80%
At the school level:					
• Tool-related ideas and practices are gaining traction	LDC	72%	45%	73%	38%
	MDC	79%	50%	79%	33%
• Teachers are sharing tool-related content with non-participating educators	LDC	50%	42%	50%	56%
	MDC	60%	50%	58%	63%

Table 3C. PLOs

PLOs:		Formal Professional Development		Scheduled Planning Time		Collaboration	
Breadth							
At the individual teacher level:		Yes	No	Yes	No	Yes	No
• Average increase in tool use by individual teachers	LDC	1.4	0.6	1.4	1.1	2.9	1.8
	MDC	1.9	1.7	1.9	1.8	4.4	2.2
• Plans for expansion of tool use among individual teachers	LDC	65%	63%	65%	65%	67%	59%
	MDC	89%	87%	90%	87%	91%	84%
• Plans for continued tool use	LDC	74%	67%	74%	70%	78%	64%
	MDC	86%	86%	87%	85%	89%	81%
• Plans to improve upon current practice related to tool use	LDC	93%	86%	94%	89%	95%	85%
	MDC	96%	97%	97%	95%	98%	93%
At the school level:							
• Teacher involvement is rising	LDC	64%	48%	75%	49%	72%	42%
	MDC	68%	44%	70%	54%	71%	41%
Depth							
At the individual teacher level:							
• Increase in use of tool-related strategies outside of tool use	LDC	76%	64%	77%	70%	79%	63%
	MDC	88%	78%	87%	84%	89%	80%
At the school level:							
• Tool-related ideas and practices are gaining traction	LDC	70%	55%	80%	57%	79%	50%
	MDC	79%	62%	84%	66%	83%	57%
• Teachers are sharing tool-related content with non-participating educators	LDC	48%	45%	41%	53%	47%	46%
	MDC	59%	57%	56%	62%	59%	60%