



Brief Two

Robust Implementation of LDC: Teacher Perceptions of Tool Use and Outcomes

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About Research for Action

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

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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. Lessons from the first generation of standards-based reforms suggest that intense attention to high quality instructional tasks (City, Elmore, Fiarman, & Teitel, 2010; Hiebert and Carpenter, 1992; Hiebert and Wearne, 1993; Jones et al, 1994) and use of formative assessments embedded in those tasks (Black et al, 2004; Clarke and Shinn, 2004; Fuchs, 2004; Tunstall, 1996) are essential if teachers are to meet the demands of the CCSS.

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

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

These tools have been in use for two years (the 2010-2011 and 2011-2012 school years).

In This Brief

This brief highlights and assesses the status of elements of robust implementation of the LDC tools, which are represented by the small blue circles in the Theory of Action (see Figure 1). These six indicators, which fall into two main categories – Teacher Beliefs and Knowledge and Classroom Changes– are instrumental in understanding teachers' disposition towards the tools and their perceptions of how their instruction and student learning have changed as a result of their participation in the LDC initiative. Robust implementation should lead to several intermediate and long-term outcomes, among them Broad and Deep Instructional Change. We present our findings for this outcome as well. Figure 2 provides definitions for each Robust Implementation Indicator, as well as for the Intermediate Outcome of Broad and Deep Instructional Change discussed in this Brief.

Figure 1. Theory of Action

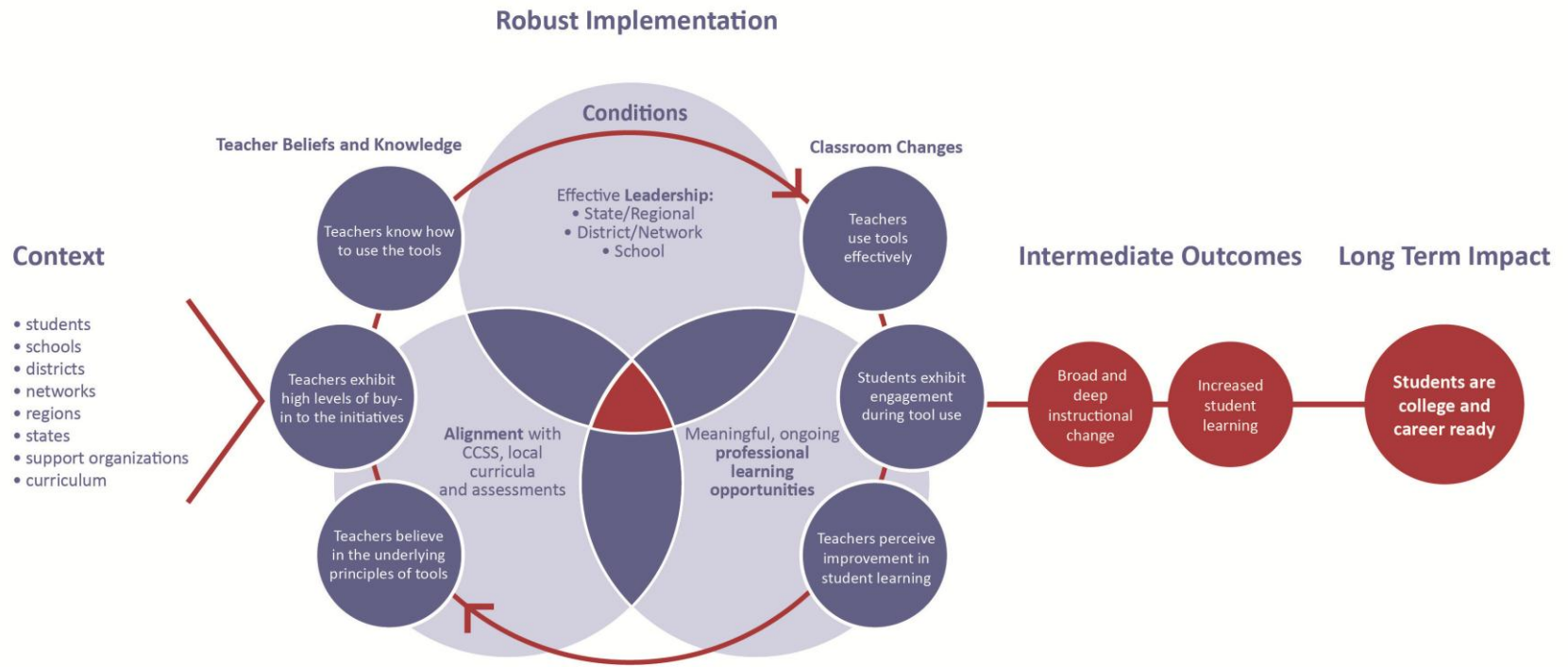












Figure 2. Definitions of Robust Implementation Indicators

Robust Implementation Indicator	Definition
 <p>Teachers believe in the underlying principles of tools</p>	<p>Traditionally, elementary English/Language Arts teachers are responsible for teaching literacy. As secondary content-area teachers begin to include literacy instruction in their courses by using LDC, it is important to understand whether they believe this is a worthwhile task and if it should be their responsibility to provide such instruction.</p>
 <p>Teachers exhibit high levels of buy-in to the initiatives</p>	<p>Teacher buy-in to instructional and curricular initiatives is central to the success of this 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.</p>
 <p>Teachers know how to use the tools</p>	<p>In order for teachers to successfully use the LDC modules and increase student learning, they need to have a strong understanding of how to develop and use modules, including mini-tasks and the instructional ladder.</p>
 <p>Teachers use tools effectively</p>	<p>Once teachers know how to build and use the modules, they need to execute new pedagogical methods in ways that change instructional practice.</p>
 <p>Students exhibit engagement during tool use</p>	<p>Students must be responsive to, and engaged by, the new instructional practices in order for student learning to improve and for students to graduate from high school college and career ready.</p>
 <p>Teachers perceive improvement in student learning</p>	<p>Teachers need to recognize the utility of the tools and personally perceive improvement in student learning prior to making a greater investment in the initiative.</p>
Intermediate Outcome	
 <p>Broad and deep instructional change</p>	<p>As Robust Implementation takes hold and deepens, teachers will exhibit significant changes in their pedagogy that will extend beyond the confines of the initiative and into general classroom practice.</p>

Throughout this brief, we use the following symbols to indicate:

-  **A status update of how teachers are using the tools** – Descriptive only; no indication of whether the activity is positive or negative.
-  **Successful aspects of tool implementation**
-  **Issues LDC and participating sites need to watch for, such as challenges teachers are confronting or questions raised by the data**

Data Sources

Research for Action (RFA) began conducting research on this initiative in its co-development year of 2010-2011 (Year One), and has continued this research into the pilot year of 2011-2012 (Year Two). This brief draws on data relevant to understanding teacher knowledge about and use of the LDC tools in their classrooms in Year Two (see Figure 3). These data are a subset of Year Two data collection; the other briefs in this series examine other aspects of LDC and Mathematics Design Collaborative (MDC) using additional data.

Figure 3. Classroom-level data sources

LDC Research Activities – Fieldwork In 4 Sites	Teacher survey	Teacher interviews	Other educator interviews	Classroom observations
Number Of Participants Year Two	240 ¹ (Response rate = 53%)	71	17	20

Due to the expansion in both the number of sites and the number of teachers participating in each site, this year’s teacher survey data is more robust than in Year One. The number of teacher survey respondents grew from 96 in Year One to 240 in Year Two. Of the 240 respondents, 57 (24%) were Experienced LDC teachers and 179 (76%) were New LDC teachers. (Four teachers did not respond to the question.)

RFA triangulated all of the above data (interviews, surveys and observations) to understand and measure the enactment of the six robust implementation indicators and the intermediate outcome indicator (Broad and Deep Instructional Change) in Year Two.

In Year One, all participating teachers were new to the initiative; in Year Two, LDC teachers included both teachers who participated in Year One and teachers new to the initiative. In this brief, “New teachers” refers to those teachers whose participation in the LDC initiative began in the 2011-2012 school year and “Experienced teachers” refers to teachers who have been participating in the initiative for both the 2010-2011 and 2011-2012 school years. Much of the qualitative and survey analysis in this brief focuses on both overall teacher perspectives on Year Two, as well as on differences between new and experienced teachers. Teachers’ content area (science, social studies, English/language arts) and

¹ Teacher survey sites include returning Year One sites, one new site and new districts within a regional site. Three other Year One sites did not return for Year Two, so were not included in the survey.

the site-specific contextual issues can be important factors in implementation. When relevant, we examined content area and site as mediating factors for implementation. Also, when implementation challenges and successes have remained constant – or changed dramatically – from Year One to Year Two, we compared the results of these two evaluation periods as a lens for understanding the data.

LDC Implementation Context

District and network leaders created LDC implementation plans. They made decisions about whether to focus implementation in particular grades or content areas and about how many modules teachers would implement. Most teachers taught either one to two modules (62%) or three to four (33%); whether teachers were Experienced or New LDC teachers did not affect the number of modules implemented. Site was the biggest factor affecting the number of modules taught. In three sites, between 88 and 100% of teachers implemented one or two modules. In the fourth site, which made modules central to some curricula, 71% of teachers implemented three or four modules.

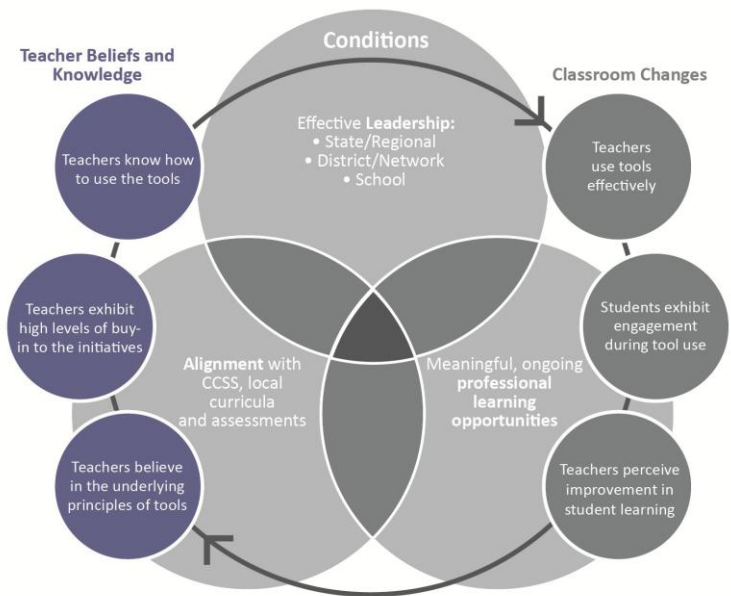
When teachers were asked what number of modules they would like to teach in the upcoming school year (2012-13), the mean response was between 2 and 3 modules. Similar percentages of New and Experienced teachers wanted to teach two (33%) or three (17%) modules, but Experienced teachers were more likely to want to teach higher numbers of modules, e.g. four (28% vs. 22%) or five (9% vs. 3%). Site context also affected teachers’ responses, with teachers in the high module use site more likely to say they would like to implement more modules.

Elements of Robust Implementation

As the theory of action depicts, when the conditions necessary to support tool use are in place, robust implementation emerges in two forms: Teacher Beliefs and Knowledge, and Classroom Changes. Our findings regarding each are summarized below.

Teacher Beliefs and Knowledge

This section examines the status of the three indicators of Robust Implementation related to Teacher Beliefs and Knowledge depicted in the Theory of Action and highlighted here.



Robust Implementation Indicator: Teachers believe in the underlying principles of the LDC tools

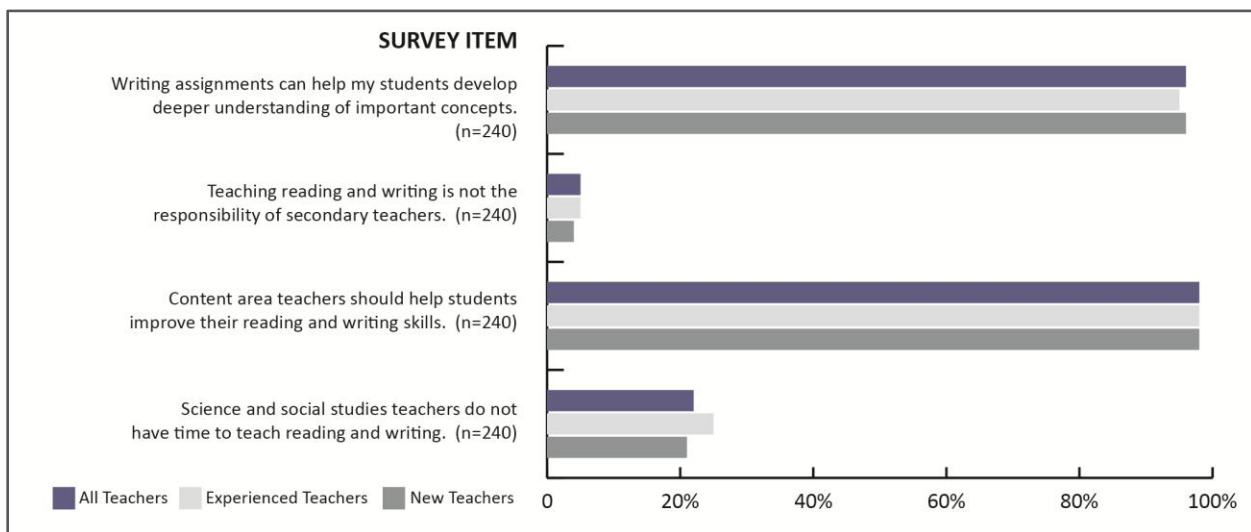
Teachers believe in the underlying principles of tools

The use of the LDC framework requires secondary teachers to make fundamental adjustments in their teaching of content by including literacy instruction. Traditionally, the teaching of literacy has been the responsibility of elementary school teachers, and, when literacy was taught at the secondary level, it was only included in English or Language Arts classes. As secondary content-area teachers begin to include literacy instruction in their courses by using LDC, it is important to understand whether they believe this is a worthwhile task and if it should be their responsibility to provide such instruction.

★ Teachers' beliefs about literacy instruction are aligned with the underlying principles of the tools.

- **Teachers believed writing assignments help students develop understanding of subject matter.** A key underlying principle of the LDC tools is that writing assignments help students learn and retain content. Fully 96% of all teachers reported that writing assignments allow students to develop a strong understanding of content (see Figure 4).
- **The vast majority of teachers agreed that all secondary teachers should be teachers of literacy.** The vast majority of LDC middle school and high school teachers disagreed with the idea that teaching reading and writing is not the responsibility of secondary teachers (95% disagreed) and agreed that content area teachers should help students improve their literacy skills (98%).

Figure 4. Teachers' agreement with underlying principles of the LDC tools



- ! **Teachers are concerned about science and social studies teachers having the time to teach literacy.** Almost a quarter of all teachers reported that science and social studies teachers do not have time to teach reading and writing.

There are few differences between experienced and new teachers in terms of beliefs about underlying LDC principles.

**Robust Implementation Indicator:
Teachers exhibit high levels of buy-in**

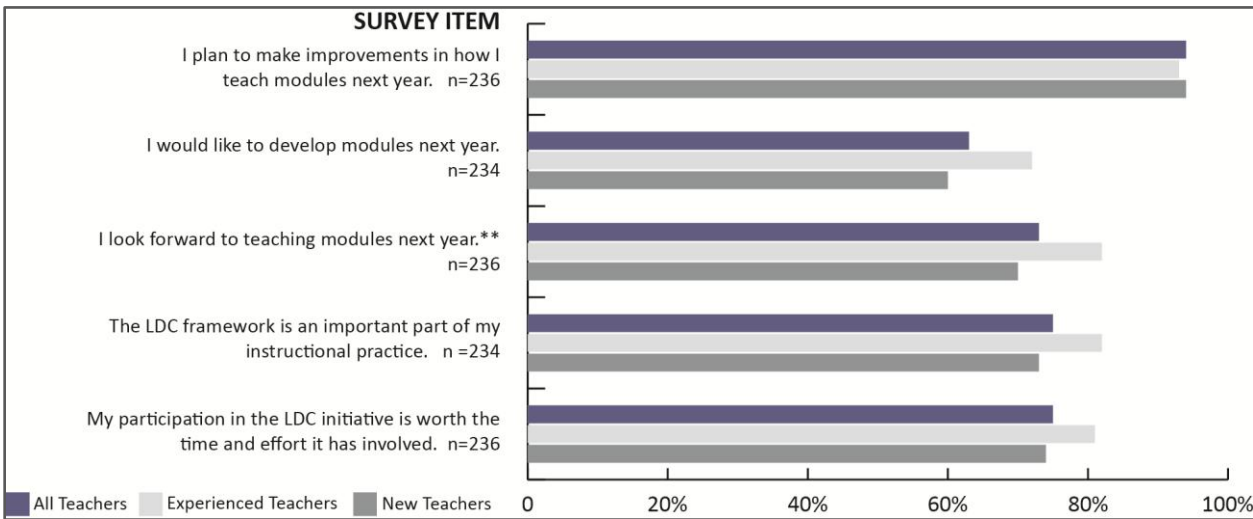


Teacher Buy-in to instructional and curricular initiatives is central to the success of any new educational policy or reform. Teachers need to believe that the initiative and its supporting structures will provide them with the tools to help their students achieve at higher levels. Additionally, in the case of the LDC instructional tools, they need to believe that LDC will help students to graduate from high school with strong literacy skills so that they will be college and career ready. In Year One of the LDC initiative, most participating teachers were identified as strong educators by district and/or school leaders and invited to participate; only a small portion were required to participate. In Year Two, most sites have scaled the LDC initiative to include more teachers; participation is less voluntary and may have moved beyond early adopters.



Teachers expressed commitment to improving their use of modules. As can be seen in Figure 5, 94% of all teachers reported that they plan to make improvements in how they teach modules next year. Interview data (presented on page 12) indicates that teaching a new module can be challenging, but that re-teaching a module is easier. It is also important to note that there is almost no variation in commitment between experienced and new teachers.

Figure 5: Teachers' reports of buy-in to the LDC initiative



**Differences between experienced and new teachers are significant at the .1 level.



Teachers' enthusiasm about LDC seemed to grow with more experience. Seventy-two-percent of experienced teachers reported that they looked forward to developing more modules, a higher percentage than new teachers (60%) (see Figure 5). Additionally, a significantly higher percentage of experienced teachers (82%) reported that they look forward to

teaching modules in the 2012-2013 school year. The differences between experienced and new teachers' level of enthusiasm around developing and teaching modules next year suggests that as the initiative has scaled and participation has become less voluntary or selective, initial teacher buy-in to the initiative has somewhat diminished. It is also possible that more LDC experience leads to more enthusiastic participation. Overall, more than a quarter of all teachers are not very enthusiastic about developing and teaching modules next year, which may be due to the time demands associated with the development and use of modules. Issues around time requirements to use the LDC modules are discussed on page 19.



Teachers reported that the tools had become important to their instructional practice. A strong majority of teachers (75%) reported that LDC is an important part of their instructional practice, with experienced teachers (82%) more likely to report this than new teachers (73%) (see Figure 5). This indicates that the framework's importance to and integration with instructional practice may increase over time.



Teachers believed it was worth their time to work with the tools. Overall, three-quarters of teachers surveyed reported that LDC was worth the time and effort it has involved; although teachers' responses to this question varied by experience with LDC (see Figure 5). Teachers' participation in the LDC initiative requires a considerable investment of time and teachers must make many adjustments to their traditional instructional practices and content. Teachers attended formal professional development, met with colleagues during or after to school to collaborate around module development and instruction, and usually had to review and respond to both rough and final writing drafts, which was a heavy load for many content area teachers, as well as some ELA teachers.

Interview data indicated that teachers had high levels of buy-in to the LDC initiative, and that those who had concerns about the tools were more likely to be New teachers or teachers in both groups who had concerns about local implementation strategies that did not reflect their perceptions of the utility of the tools. Some examples of teachers' thoughts are below.

High buy-in

I love the LDC. I hope and pray like so many education programs that they start, that it doesn't fall apart...That they continue to get it going. (New High school social studies teacher)

I think unless you teach ELA you shy away from writing until you are told to write that obligatory writing piece that you have to turn in at the end of the year. This makes me focus a little bit more on having my students practice reading and writing throughout the school year. It has made me take a look at that and incorporate that into my instruction, not just when we are working on a module, but throughout all of my units. (New middle school science teacher)

Concerns about tool use

On one hand it gives them a deeper understanding of the content area of what you are working on—for example, we're working on different forms of government; it gives them a deeper understanding of that. But it does not give them the understanding they used to get before, about the customs and courtesies of those areas, of countries. So we sort of, I don't know if you want to say "narrowed it down," "chopped things off," or whatever – some kind of trade-off (New middle school social studies teacher)

Concern about local implementation

I [emphasis] love the way it's structured. There's some tweaking that needs to be done so I've got some criticism in the specific aspects, but I love the way the program is put together and I think the goals are pretty good. I can't pull some out of my head right now. I enjoy teaching it and I don't think it's fluff and I think it's very important and I love the way the strategies are put together and again, sometimes we have to tweak the strategies.
 (New middle school ELA teacher)

Robust Implementation Indicator: Teachers know how to use the tools

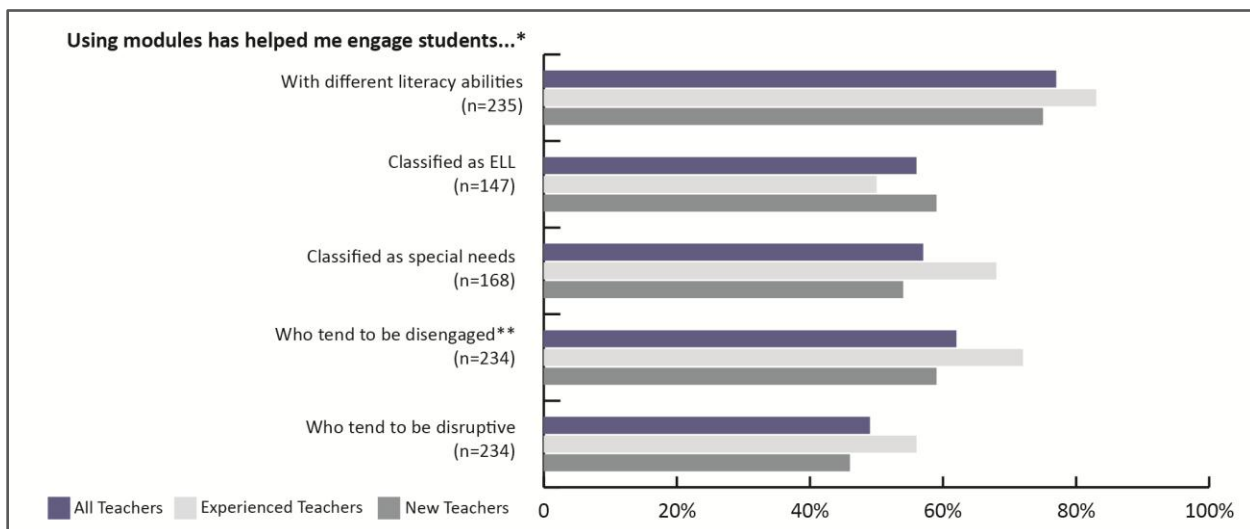


In order for teachers to successfully use the LDC modules and increase student learning, they need to have a strong understanding the LDC framework. Teachers need to know the skills their students need to complete the template task and what types of mini-tasks will help them scaffold their students' learning. Teachers also need to understand how to use an instructional ladder. Teachers need to understand both how to implement modules and, in some cases, how to develop them.



Teachers understood the building blocks students needed in order to complete the template task. Ninety-six percent of teachers surveyed indicated that they know the skills their students need in order to complete the template task and 93% of teachers surveyed reported that they know the type of mini-tasks to give their students to prepare them to complete the template task (see Figure 6). High percentages of both experienced teachers and new teachers report knowing the skills and assignments student need.

Figure 6. Teachers' knowledge of how to use LDC



**Differences between experienced and new teachers are significant at the .1 level.

*** Differences between experienced and new teachers are significant at the .05 level.



Teachers’ knowledge about using the LDC framework increased with experience.

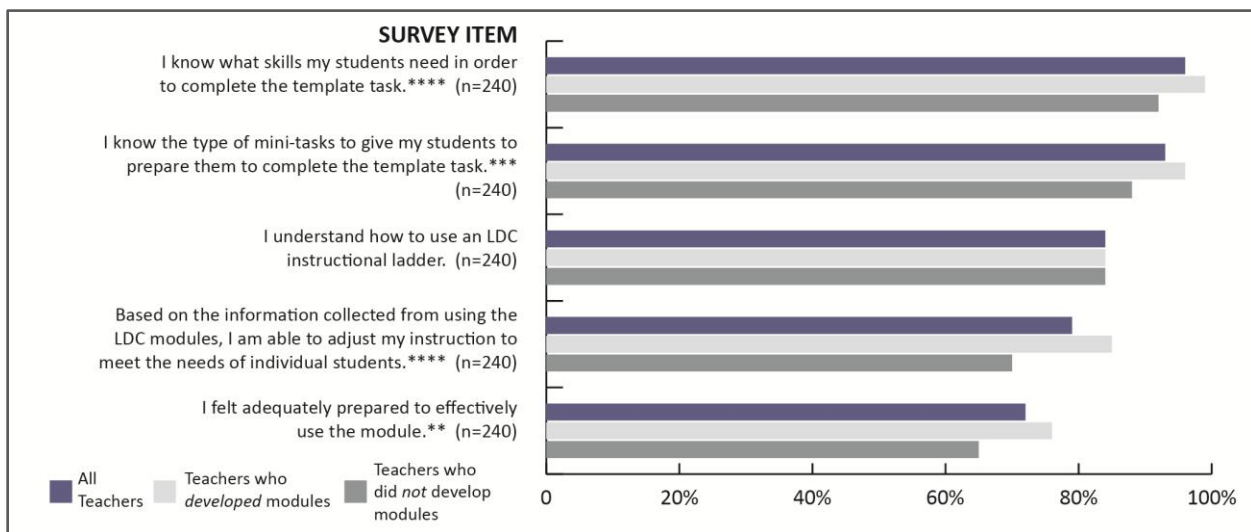
For example, 91% of experienced teachers reported that they understand how to use an LDC instructional ladder, while 82% of new teachers reported having obtained this knowledge of tool use (see Figure 6). Eighty-nine percent of experienced teachers reported that they were able to adjust their instruction to meet the needs of individual students, while 76% of teachers reported agreement with that statement. Finally, 89% of experienced teachers surveyed indicated that they felt adequately prepared to use to effectively use a module, compared to 69% of new teachers. These findings suggest that teachers with more experience using LDC modules have more knowledge about some aspects of tool use, compared to their counterparts who are newer to the LDC initiative.



Teachers who developed or revised modules reported significantly higher levels of knowledge about module implementation.

Sixty-four percent of teachers surveyed either developed or revised a module. As Figure 7 below indicates, teachers who developed modules reported more knowledge and understanding on four out of five tasks central to creating modules or refining them during implementation. The fact that all teachers use the instructional ladder during implementation may account for similar levels of understanding of instructional ladder use. Interviews indicated that teachers found that working collaboratively to revise existing modules was also effective in helping them build their understanding of template tasks, the mini-tasks and the ladder.

Figure 7. Knowledge difference between teachers who did and did not develop modules



** Differences between teachers who developed modules and those who did not are significant at the .1 level.

***Differences between teachers who developed modules and those who did not are significant at the .05 level.

****Differences between teachers who developed modules and those who did not are significant at the .01 level.

In interviews, teachers who did not develop modules reported less ownership and more uncertainty about how to implement the module. A New middle school social studies teacher explained:

I do not have much ownership on that [module]....I had just [been] handed [the module] and had to go to my counterpart and hand it to her and wade through it and figure out how to do it with not much direction. To say that we did it with the fidelity, that we should have, is kind of open to interpretation.

Some experienced teachers also raised concerns that new teachers who do not develop modules would face barriers in implementation. An Experienced high school ELA teacher said:

I can't just take my module and give it to [the other ELA teacher in her grade] and say teach this and it's going to be LDC. It won't be. I think that if the person wrote it with me, it would be LDC. They don't have to write it with me from the start.

Classroom observations provided further insight into the finding that teachers who developed modules (85%) were more likely than teachers who did not develop modules (70%) to agree that they knew how to use information gained from the modules to adjust instruction to better meet student needs. In post-observation interviews, teachers reported making adjustments during LDC lessons and we were able to observe teachers making these shifts in response to students' responses and questions. It is possible that the knowledge gained from module development or revision helped teachers respond nimbly when such shifts were needed.



Teachers' ability to create and teach modules grew with experience. In Year One, teachers reported that the process of developing modules was challenging, as they learned the new LDC framework. In Year Two, many experienced teachers reported that module development is much easier and they are much more knowledgeable about the process of creating and teaching modules. Some new teachers report that developing and teaching modules will be much easier the next time around.

Experienced Teacher

[Module development was] much easier. What took us five hours last year takes us an hour and a half this year (Middle school social studies teacher)

New Teacher

It wasn't easy. All of us were new to the Gates modules. Just navigating through the document and filling out the ladder on the computer and understanding what it wanted us to fill in different spots. I think we could sit down and write a lesson plan to teach a writing assignment for that concept, but turning it into the document for the module was difficult for us. It will be easier the next time, but it was just getting through it the first time it seemed like it took forever. (Middle School Science Teacher)

Teachers just beginning their LDC involvement need strong support from districts and teachers to begin planning and implementing modules. Sites are scaffolding this learning process for new teachers in different ways. For example, a regional partner suggested that teachers in its sites develop their first module from a unit they have taught in the past. In other sites, experienced teachers sometimes took the lead in early collaborative module development and then stepped back later in the year to allow new teachers to grapple with module development.

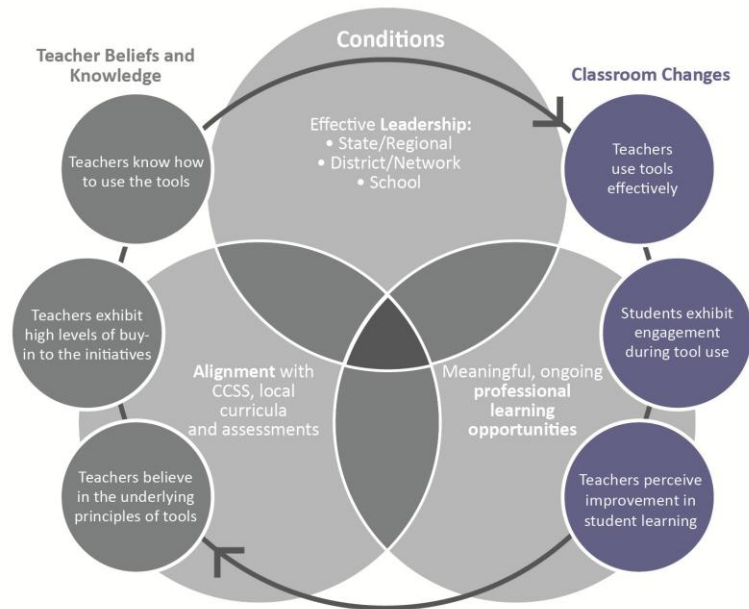


Support from district/school leaders with LDC knowledge seemed to support teachers' knowledge development. Teachers who had access to district or school leaders

with expertise about LDC module development and implementation reported higher levels of knowledge in these key areas listed in Figure 7. The site with teachers that consistently reported the highest level of knowledge in these areas (at least 92%) had access to experienced teachers with deep knowledge about LDC modules, and as many as three district leaders who were providing support to teachers.

Classroom Changes

As the theory of action graphic to the right indicates, robust implementation of LDC brings about both changes in teacher beliefs and knowledge and changes in the classroom. This section focuses on assessing the status of the three types of Classroom Changes depicted in the Theory of Action, and highlighted here.



Robust Implementation Indicator: Teachers use the tools effectively

To understand the status of effective tool use in Year Two of the initiative, we assessed teachers' perceptions of how well they are able to address **four central goals** of module implementation. The LDC Guidebook (Crawford, Galiatsos, & Lewis, 2011) emphasizes the importance of addressing both content and literacy: "Designed to make literacy instruction the foundation of the core subjects, LDC allows teachers to build content on top of a coherent approach to literacy" (p.5). Ongoing formative assessment of the mini-tasks that are core to the LDC instructional ladder allows teachers to fine-tune instruction to meet student needs and support student growth. The tools also provide teachers with ways to increase rigor and meet the demands of the CCSS.

Teachers use tools effectively

Four Central Goals of Module Implementation

- Using modules to teach content
- Using modules to teach literacy skills in the content areas
- Using modules to enhance formative assessment
- Using modules to increase rigor

Central Goal: Using modules to teach content



Using modules helped teachers find effective strategies for teaching subject content. Sixty-six percent (66%) of all teachers surveyed reported that using modules has helped them find effective strategies for teaching their subject content during module instruction, and experienced teachers were more likely than new teachers to report this. More than three-quarters (77%) of experienced teachers versus 64% of new teachers said that modules helped them find effective strategies for teaching their content.²

Across all content areas, teachers were using the following three strategies to teach content:

- Making connections to the template task during mini-task instruction
- Strategically questioning student about module content
- Modeling writing about the content.



Modules enabled teachers to explore content in-depth with students. In interviews, teachers from across content areas reported this benefit of modules. An Experienced high school social studies teacher describes how, as a result of LDC, the kinds of tasks she gives students require more in-depth analysis of content:

LDC has totally changed my way of thinking about what I do in class. I had a bunch of different worksheets for kids about the New Deal [which she had used in the past. To make a module, she created mini-tasks]. Instead of asking 5 questions, I asked two good analysis questions. And then had them compare two articles. With the [political] cartoon I gave them two good questions. Instead of having them analyze what they see in the cartoon and that kind of thing, I pared down the amount of questions I was asking and made them more meaty to get more out of them.



Science teachers experienced the most challenges in using modules to teach content. About half of science teachers surveyed (51%) said that modules helped them find effective strategies for teaching content, compared to 65% of social studies teachers and 67% of ELA teachers. In interviews, science teachers indicated they sometimes had difficulties balancing the teaching of literacy and science in the modules.

The hardest part in science is students extracting the information, but not forgetting to include the science in it. If they were talking about global warming and it was an argumentative piece, there was a lot of “I think such and such” and I had to ask the why. So, not just the literacy but reading and extracting information with a purpose. (Experienced middle school science teacher)

You’re not going to have a ton of modules because there aren’t a lot of places in chemistry where I can find articles that fit....Because [science] is a technical subject, it doesn’t gel with everything you teach to do a module. (Experienced high school science teacher)

² **Differences between experienced and new teachers are significant at the .1 level.

Central Goal: Using modules to teach literacy skills in the content areas

Teachers developed new ways to teach literacy skills in their content area. Seventy-three percent (73%) of teachers surveyed indicated that using modules has helped them in this way. Experienced teachers (84%) were significantly more likely to report this than New teachers (71%).³

In interviews, science, social studies and ELA teachers described how LDC was changing their practice by giving them new strategies for integrating literacy skills. Below, teachers from three different sites and all three content areas explain this impact on their practice.

Social Studies

It has made me focus more on the communication arts side of teaching rather than just history. If I didn't have this I probably wouldn't do writing assignments like this. I'd do smaller ones. I'm glad I'm doing it. It definitely benefits the students. (New middle school social studies teacher)

English/Language Arts

I was a math person until I came here and then I was ELA, so when I was asked to be a part of this initiative, I was intimidated. But it has helped me feel more comfortable teaching ELA and more prepared...and now I feel I am an ELA person so it has made a difference in my professional life. (Experienced middle school ELA teacher)

Now the content area stuff is great, because it's forcing me to give them nonfiction sources, which is not something that I always had done in the past. (Experienced high school ELA teacher)

Science

For me, as a teacher, I'm always really scared of writing, reading, because that's why I went into science...I want to bypass all of that stuff [reading and writing]. And I'm being forced to-in a good way-forced to think differently. And I'm sure my students are going to be forced to think differently also in a science class, because they're used to not having to write and read. (Experienced high school science teacher)



The LDC framework helped teachers address key areas of reading and writing.

Seventy percent (70%) or more of teachers indicated that the framework helped them *thoroughly or sufficiently* address:

- Summarizing important points (75%)
- Evaluating strength/weakness of evidence (72%)
 - Comparing arguments in two or more texts (76%)
- Formulating a thesis statement (70%)
- Writing an introduction (70%)
- Citing textual evidence to support claims (77%)



Science and social studies teachers especially benefited from using modules to teach literacy skills. Even more than ELA teachers, science and social studies teachers said

³ **Differences between experienced and new teachers are significant at the .1 level.

that modules helped them develop new ways to teach literacy skills; science teachers seemed to gain the most in this area. Science teachers (87%) were significantly more likely to report that using modules helped them develop new ways to teach literacy skills, compared with 64% of ELA teachers.⁴ Seventy-seven percent of social studies teachers reported that modules helped them teach literacy. These differences likely reflect the fact that most English teachers started their module work with higher degrees of facility with teaching literacy skills. Science and social studies teachers especially appreciated the structure LDC provides for developing writing products. A New high school social studies teacher said:

It was helpful for me as a social studies teacher to have somebody show me a writing framework, and a way that this could be done. Because at my old school I would [assign] an essay. And I would get half the essays. Some of them would be good, some would be bad, some kids would just never write an essay. I think this is a more, a process that forces them to, a little bit more. Because it is piece by piece.



However, teachers have questions about teaching modules in science and social studies. Science and social studies teachers still had many questions about integrating literacy into their instruction. In particular, they wanted support for using the instructional ladder and helping the students gain writing skills. In some schools, ELA teachers provided support around writing instruction for content teachers. In interviews, content teachers talked about their uncertainty about how to teach writing:

It's one thing for me to give the kids five terms for social studies. They learn the terms, they learn the definition. It's another thing for me to have to give them writing skills on top of those....If you've got me teaching language arts, we've got a problem....It's new for me. (New middle school social studies teacher)

In the quotation below, an Experienced ELA LDC teacher described science and social studies teachers' responses to the new expectations LDC brings:

The bigger challenge has been with the social studies and science modules throughout the building because they are not ELA people so the writing process is intimidating to them and if they are not familiar with the module it has been causing confusion which is transferring into their lessons. So we are trying to help them simplify what they are doing and make it manageable for them to implement while following the module. That has been a challenge this year. (Middle School ELA teacher)

Central Goal: Using formative assessment in the modules

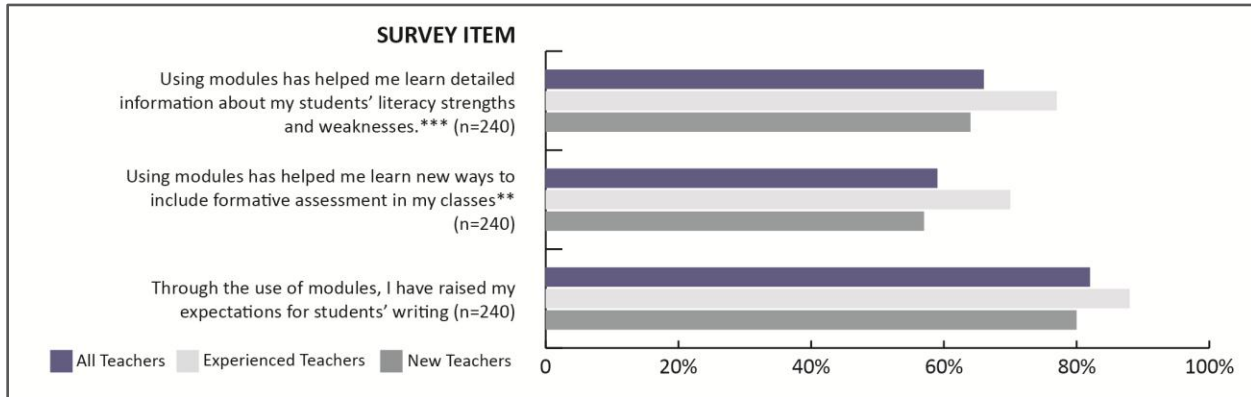


Teachers incorporated formative assessment in their instruction and learned more about students' strengths and weaknesses. As Figure 8 indicates, Experienced teachers were significantly more likely to report this than New teachers. Many teachers learned about student struggles in areas where they had assumed students were proficient, especially with regard to writing. Many LDC mini-tasks provide insight into students' reading and writing skills. Gaining this new knowledge about students helped teachers both adjust their plans during module instruction and reflect on future instruction. A New high school social studies teacher explained what skills she plans to focus on next time:

⁴ Differences between science and ELA teachers were significant at the .01 level.

Absolutely, [I was able to identify skills my students need in order to do better with the next module.] Definitely citing text, so that it's not plagiarism. Definitely [I'm] going to focus on that next time. Working on marking up the text, I think, so that when they go back to get ready to put it down on paper, going back through their own text copy, and where they've taken notes, and made markings, and make sure those markings are meaningful to them, instead of marking a whole paragraph ... I think the paragraph form, more explaining what should be in each paragraph, versus the whole product.

Figure 8. Modules and formative assessment



** Differences between experienced and new teachers are significant at the .1 level.

***Differences between experienced and new teachers are significant at the .05 level.



Teachers increased their expectations for student writing. A strong majority (82%) of all teachers indicated that the modules had led them to raise their expectations for student writing, with a higher percentage of experienced teachers citing this (88%) than new teachers (80%) (see Figure). The ongoing formative assessment of student writing through mini-tasks and multiple writing drafts gave teachers the opportunity to see students meet high standards, thus supporting these raised expectations. An Experienced middle school ELA teacher noted, “I got more out of the students that really struggled than I expected, because it was broken down for them.”

Central Goal: Using modules to increase rigor



Teachers indicated that modules were helping them increase the rigor of both reading and writing assignments. Eighty percent (80%) of teachers said that using modules had helped them increase the rigor of their writing assignments, with experienced teachers (89%) significantly more likely to report this than new teachers (79%).⁵

In interviews, teachers reported that their students are negotiating more difficult texts. A high school English teacher said, “I’ve seen a lot of students deal with very difficult texts and get meaning from them.” A New high school social studies teacher reported,

⁵ Differences between experienced and new teachers are significant at the .1 level.

I could see the increased level of reading, interpretation. I had them read, underline words and phrases, they didn't understand. Instead of glazing over words...they looked them up. There was a lot of terminology that I now see students using in discussions, and I know they wouldn't have used them had they not seen those higher level readings.



Teachers were better able to implement the Common Core State Standards.

Seventy-nine percent (79%) of teachers said that using modules helped them implement the CCSS and experienced teachers were especially enthusiastic about this, with 91% agreeing versus 77% of new teachers.⁶ A key goal of the CCSS is to increase rigor, and modules appear to be helping teachers take on the challenge of implementing the new standards.

Factors that Make a Difference in Effective Tool Use

Teacher interview data points to **four factors** for LDC implementation that LDC project leaders need to address to support robust implementation of modules.

-
- Four Factors that Make a Difference
in Effective Tool Use**
-
- Process of module development
 - Differentiating instruction with the tools
 - Responding to writing and using the LDC rubric
 - Making time for the tools
-

Factor 1: The Process of Module Development



Teacher involvement in module development varied. The amount of teacher participation in module development varied from 15% in one site to more than 90% in others. This wide range occurred because, as in Year One, reading coaches in one site were primarily responsible for module development. In that site, 85% of teachers surveyed did *not* develop modules. Overall, more than half (58%) of LDC teachers developed modules in Year Two. An additional 6% worked on revising modules and the remaining 36% implemented modules developed by others.

Research in Year One indicated that developing modules helped to build a strong understanding of the LDC framework, and that teachers who implemented modules developed by others reported struggling more with some aspects of module implementation. As the initiative scales up, sites are diversifying their approaches to module development, including providing more teachers with already developed modules or engaging them in revising existing modules.



Module Creator was a useful resource. Module Creator, an online tool, was designed to make module development easier for teachers; teachers work their way through an electronic document, filling in the template. They can access reading and writing strategies or mini-tasks through Module Creator. Also, for a fee, districts can access an extensive online library of texts which teachers can search by content and lexile level to add to their modules. About half of the

⁶ Differences between experienced and new teachers are significant at the .05 level.

teachers surveyed have access to Module Creator and 85% of this group reported that it was helpful. Some teachers, especially in one district, found Module Creator challenging to use initially.

! **Teachers value the module development process, but also find it demanding and time-consuming.** As in Year One, Year Two data indicate that teachers think that developing one's own modules contributes to strong implementation. Yet the considerable demands of module development can be difficult for teachers to add to already full schedules.

A vast majority (86%) of teachers who developed modules in Year Two reported that it was challenging for them to find the time to develop modules. Despite this, 63% of all teachers say they would like to develop modules next year.

Below, a teacher describes the demands of module development:

We [group of 4 teachers from different schools] met at first with [their district coach] and then we had four meetings after school and they were all 2 hours in length. We also worked at home on this and [another district coach] put in a lot of time on her computer. I put in a lot of extra time on my computer just getting it into the template. A lot of time - it is meticulous work. (Experienced middle school ELA teacher)

! **Some teachers struggled with the module template.** Complaints include its large size, which contributes to confusion about how to use it, and that it requires input of information that some teachers think is unnecessary. This feedback is complicated by the fact that, at the time of data collection, teachers within and across districts were using different versions of the module template. Like the New high school science teacher quoted below, many people wanted a shorter version of the template.

The template was pretty easy once we got rolling. The template of the whole packet of stuff was way too much. If it was just the writing prompts and the more useful couple of pages, it would be great. There was all kinds of stuff that was totally unnecessary.

! **Finding appropriate reading materials for modules was challenging.** This Year One challenge continued to be a major teacher concern in Year Two. About half (48%) of teachers surveyed said that it was challenging to find content-rich reading materials at their students' reading level. One teacher described the challenges as follows:


I feel like that inserting the content [into the template] wasn't difficult as much as finding the right pieces to go in, the ones that were appropriate length, wouldn't overwhelm the students but also make them work. We all found that difficult. (New high school social studies teacher)

In interviews, some teachers reported that Module Creator helped them find appropriate texts; however, survey data indicated that using Module Creator did not significantly affect teachers' overall perceptions of the difficulty of accessing content-rich texts at their students' reading levels. In three different sites, teachers reported very different levels of access to Module Creator, ranging from no teachers using it to about half the teachers to almost all the teachers. In the two sites with access to Module Creator, teachers also had access to the text library. Yet, the same proportion of teachers in

each of the three sites (55 to 58%) agreed that it was challenging to find reading materials for their modules. This may reflect not only the challenges in finding appropriate texts, but also the fact that teachers want to choose rigorous, demanding texts but then face challenges in helping diverse groups of students access the reading materials once they have selected them. We discuss these demands further in the section below on differentiation.

Factor 2: Differentiating Instruction with the Tools


The ability to differentiate instruction is central to creating classrooms where all students can achieve and learn. In LDC, teachers need to be able to structure and implement teaching tasks, mini-tasks, and rubrics that both challenge students and scaffold students' successful completion of complex reading and writing assignments.

-  **Many LDC teachers need to differentiate instruction for their diverse groups of students.** Teachers across sites noted in interviews that they teach diverse groups of students with a wide range of skills and that this necessitates differentiation. Concerns about differentiation within LDC were especially marked in districts with higher percentages of struggling students, where principals and coaches were also more likely to mention this issue. One New middle school social studies teacher explained:

In social studies, we are not leveled off like the math and language arts classes. So, I have gifted and talented all the way to kids who are at a 1st grade level in one class.

-  **Many teachers are adapting modules to meet the needs of these diverse students. The most common adaptations include:**

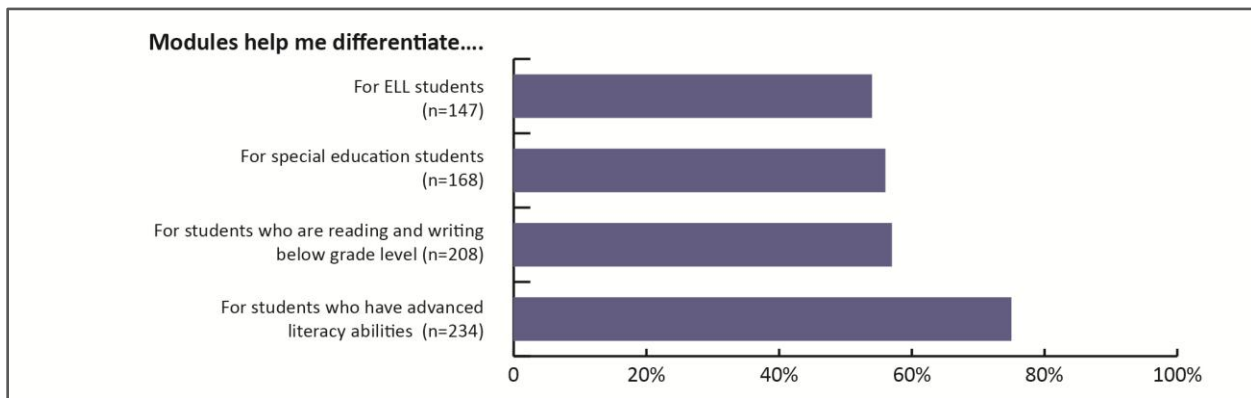
- Using different level texts for different students
- Assigning students different kinds of products
 - Some teachers make use of the template task's L1-3 structure or provide choice about what kind of writing assignments to produce. Others expect less writing (i.e., two rather than five paragraphs) from some students.
- Using mixed level pairs or groups, so that students can help and learn from each other
- Providing extra help and scaffolding to struggling students, special education students and English language learners.
 - This includes one-on-one assistance, more graphic organizers, after-school meetings, more assistance reading difficult texts, sentence starters, guided outlines

-  **Teachers encountered significant challenges in employing modules to meet diverse student needs.** Teachers are finding ways to differentiate module instruction and 64% of teachers surveyed agreed that “The modules are flexible enough to fit the needs of my students.” But more than one-third of teachers disagreed with this statement and results did not differ significantly for new and experienced teachers. Teacher survey data about professional development also highlights the need for support in this area, with 77% of teachers requesting professional development on differentiating LDC instruction.



Using modules to meet the needs of struggling students was teachers' biggest differentiation challenge. As Figure 9 indicates, teachers found the modules especially well-suited to meeting the needs of advanced students. However, only a little more than half of the teachers said that modules help them differentiate for ELL and special education students or those students reading and writing below grade level. This may speak to the challenges teachers face as they address the demands of the CCSS to increase the rigor of instruction for all students. There was no meaningful pattern in terms of new and experienced teachers' perspectives on differentiation.

Figure 9. Teachers' experiences differentiating LDC instruction for specific groups of students



Additional specific challenges in using modules with lower level students included:

- The need to slow down and take more time, already in short supply, to complete the module.
- Difficulty obtaining the written product from all the students, especially by the due date. Teachers found it especially challenging to get written products from their reluctant writers. Some teachers employed a variety of strategies, including using peer tutors and providing after-school opportunities, to help more students complete the products.

Two teachers described challenges with struggling students:

It was very difficult to find [scientific articles] on their skill level. So I'll be honest, we had to spoon-feed them a lot with those articles, because it's just, it was higher reading. Which was good for my kids who read at a 12th grade level, but for my kids who read at a 2nd or 3rd grade level, we had to break it into chunks and really walk them through it. So that part is very difficult. (New middle school science teacher)

We adapted the module [we received] when we saw they wouldn't understand vocabulary; we have to break it down for them. For my [lower level] kids, for every one activity, it took 3-4 days to finish. For honors, it took about one day. (New middle school ELA teacher)



Teachers experienced confusion about how much they can modify LDC. This is especially true in relation to the rubric and, to a lesser degree, the module framework itself.

Factor 3: Responding to Writing and Using the LDC Rubric

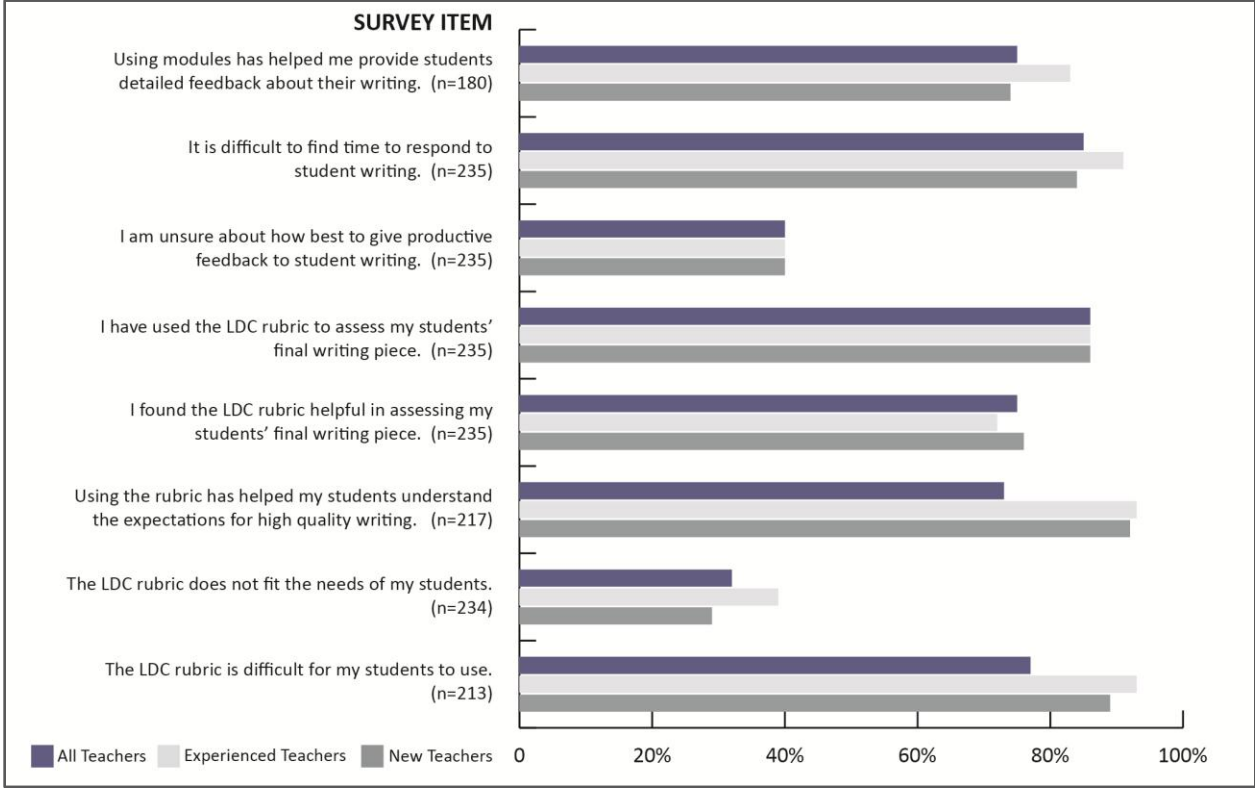
Assigning students extended writing pieces involving multiple drafts is a new experience for many

science and social studies teachers, hence providing feedback to support student writing growth is also new. In Year Two, responding to writing continued to be challenging for many LDC teachers, and especially for content area teachers.



Teachers said that using modules improved their writing feedback. Seventy-five percent of teachers reported that using modules has helped them provide students with detailed feedback about their writing; experienced teachers were more likely to agree with this statement (see Figure 10). Modules immerse teachers and students in very focused exploration of content through reading and writing tasks. This close engagement with text, along with the tasks in the instructional ladder that build student competence and knowledge, and the LDC and district rubrics provide teachers with rich data and a structure for responding to student writing. The higher response rate among experienced teachers may indicate that, as teachers work with modules, they increase their strategies for providing writing feedback.

Figure 10. Survey items about writing and the rubric



Responding to student writing is a significant challenge. This has been an important teacher challenge in both Years One and Two.

- 85% agreed that it is difficult to find time to respond to student writing
- 40% agreed that they are unsure about how best to give productive feedback on student writing.

In interviews, science and social studies teachers were especially likely to talk about needing help with how to provide writing feedback. While both new and experienced teachers reported being equally unsure about how to respond to student writing, more experienced teachers were more likely to say that finding time was challenging.



Teachers find the LDC rubric useful. The majority (86%) of teachers surveyed were using the LDC rubric to assess students' final piece of writing and three-quarters of teachers said the rubric was helpful in assessing this piece. One New middle school ELA teacher called the rubric "simple to use" and "logical"; and another Experienced middle school ELA teacher noted that it addresses "the genuine learning and growth that we wanted to see in the kids." About three-quarters of teachers (73%) said that the rubric helped their students understand the expectation for high quality writing. New teachers were somewhat more likely to find the rubric helpful.



Some teachers are concerned that the rubric does not facilitate differentiation or meet the needs of special education or ELL students. Some teachers said that it did not enable them to capture the growth these students are achieving. About a third (32%) of teachers surveyed said that the LDC rubric does not fit the needs of their students. According to 77% of teachers surveyed, it is difficult for their students to use. Experienced teachers were more likely to say that the rubric did not fit their students' needs and that it was difficult for students to use. This may reflect the fact that experienced teachers are more likely to have used different versions of the rubric over the course of their involvement; some preferred the previous rubric. A New middle school social studies teacher described challenges using the rubric with struggling students:



There's a bigger picture with learning support kids or with ESL; you're looking at gains. If they're getting 10% the first year and 50% next year, that's a huge jump. It's so much more negative than positive with LDC [rubric].

There was a lack of consistency in how sites used the LDC rubric. This raises the question of the extent to which tool developers, professional development providers and the Foundation have the goal of promoting consistent scoring with the rubric across sites. The range of practices with the rubric and scoring includes:

- In some sites, teachers have gotten the message that they must use the Year Two LDC rubric and that they cannot make changes in it. A New high school ELA teacher said, "It felt as though this rubric had us taking three steps backwards. It was not helpful and yet I was told that I had to use it."
- In other sites, teachers make changes to the rubric or blend it with their existing practices. Fifty-six percent of teachers surveyed said that they had adapted the LDC rubric. Thirty percent of teachers also used a second rubric to assess the final piece.
- Some teachers are choosing between the Year One and Year Two rubric. Many of these prefer the Year One rubric because they find it more holistic.
- Some teachers use their district rubric to give students feedback, but use the LDC rubric for collaborative scoring work with other LDC teachers.

Factor 4: Making time for LDC

Time pressures remained a significant challenge for LDC teachers in Year Two. They were the challenge most frequently cited in interviews, and also figured as the largest challenge in the teacher survey.

Time-related issues included:

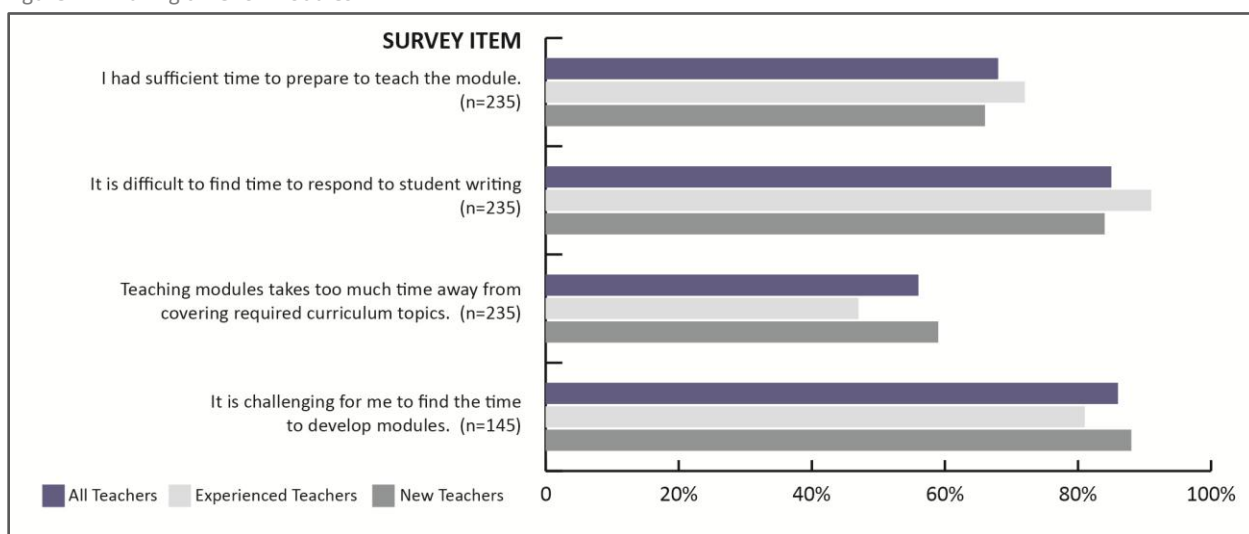
- The time-consuming nature of module development

- Modules take two-to-four weeks to teach, sometimes meaning teachers need to curtail other aspects of the curriculum to fit in modules
- Providing writing feedback and grading writing also entail significant time



As Figure 11 indicates, **85% of teachers reported difficulty in finding time to develop modules and to respond to student writing.** Time for preparing to teach the module and the tension between the time needed to teach the module and the time needed to cover required curriculum were also challenges for more than half of the teachers.

Figure 11. Making time for modules



Experienced teachers were somewhat more confident than new teachers about dealing with three of the four challenges. One exception was time for responding to student writing, which experienced teachers actually found more of a challenge than new teachers. While experience seems to help teachers develop some strategies for these challenges, it is clear that more support and problem-solving is needed, especially around writing and module development.



Curriculum competes with module instruction, especially in science and social studies. Science teachers particularly seem to feel an imperative to cover curriculum, with 82% agreeing that teaching modules takes too much time away from covering required curriculum topics. Fifty-nine percent (59%) of social studies teachers agreed, while 48% of English teachers agreed. A New high school science teacher explained:

I did have some concerns in terms of content areas. When we get into high school, we're so heavily content-based with these state standards and the assessments. So the content for us, in terms of science, comes first for us, and this is kind of secondary. So the best way we can do that is we can mesh it as best as we can so that we have a good representation of both standards.



While both experienced and new teachers struggle with time issues, **experienced teachers are more convinced of the power of module instruction and, thus, more willing to**

trade off some breadth of curriculum coverage for depth of learning through LDC. Twelve percent more new teachers named this area as a challenge and in interviews, many experienced teachers articulated benefits of LDC that made module instruction worth the time involved.

Here is the comment of a new teacher, struggling with this dilemma:

We usually talk about [module topic] for three days.... But I'm falling behind....Time-wise, something I can cover in a day or two is taking three/four weeks....Inevitable, I'm going to miss some of curriculum this year. I have to do another module in the spring which takes me two months behind my peers [who aren't doing modules]. I'm obviously going to have to cut out some things. (New middle school science teacher)

Below, a teacher describes the positive outcomes of LDC that seem a positive trade-off for covering less content.

I think it fits in perfectly with the reading and writing standards, which I think are the most important things to get a kid out of this school that can read at a high level and write coherently. Through that you're getting them the content. It totally does not fit in with the pressure that I'm under to do that by the end of course exam. I've resigned myself to say it's more important to teach reading and writing than to pass that exam. What the colleges are saying is we want a kid who can read and write. I think LDC is teaching them the skills they need to go into their college class or job and be able to read and think critically and write coherently. So what if you don't remember that FDR is new rather than square deal. That's what the end of course assessment will test them on. (Experienced high school social studies teacher)

Robust Implementation Indicator: Student engagement

Students exhibit engagement during tool use

Engagement in LDC modules is complex. Modules can span weeks of classroom time, and the teacher's role involves pushing students to work hard, and often in new ways, on writing, a task many students find challenging. Teachers with more experience with LDC were more likely to report positively about student engagement during module instruction. While the trends in LDC student engagement seem to be in a positive direction, sustaining high student engagement across the multiple phases

and weeks of a module is not an easy task for many teachers.



Most teachers felt student engagement in modules was similar to that observed in regular instruction. Approximately one third (29%) of teachers surveyed think students are more engaged during modules than during their usual instruction. More experienced teachers (37%) described their students as more engaged during module instruction than did new teachers (27%). Sixty percent of all teachers said engagement is the same and 11% said it is less during module instruction. More research is needed to determine in what ways more experienced teachers may be able to maintain higher student engagement.



Teachers' beliefs and experiences shape their assessments of student engagement.

Teachers who said modules were less engaging than their usual way of teaching noted that they usually employ more hands-on, interactive and/or technology-rich activities. Yet, other teachers noted students were more engaged during modules, for example because “I’m [the teacher] more engaged than I [normally am].” Given that there are no specific pedagogical approaches required by the modules, different teachers’ assessments of modules as, for example, very hands-on or not hands-on raise questions about what assumptions teachers are making about the requirements and possibilities of module instruction.

Interview data provides insight into the aspects of modules that teachers think promote student engagement. **Teachers highlight both specific characteristics of the modules and students’ roles within the modules as important to promoting student engagement.** These include:

- **High interest module topics.** Well-chosen module topics draw students into the content.
- **Argumentative tasks.** These call on students to take a stand and sift through evidence to back it up.
- **Mini-tasks.** A variety of mini-tasks (as opposed to teacher lecture) provide students different ways to learn content and work on writing using different approaches (e.g., individual work, small group, pairs). They give students ways to participate more, both to build their knowledge and to try out answers in smaller groups.
- **Instructional Ladder leading to template task.** Knowing the end goal keeps students focused on what they need to do. Classroom observations indicated that when students understood the assignment and what they were working towards, this contributed to student engagement.
- **Student choices.** These are often built into the template task and the accompanying research and writing processes.
- **Students as active learners.** Modules call for more student-centered, less teacher-centered ways of teaching. Classroom observations indicated that small group work contributed to student engagement.
- **Modules encourage student ownership.** Many of the above characteristics encourage students to take ownership of the template task.

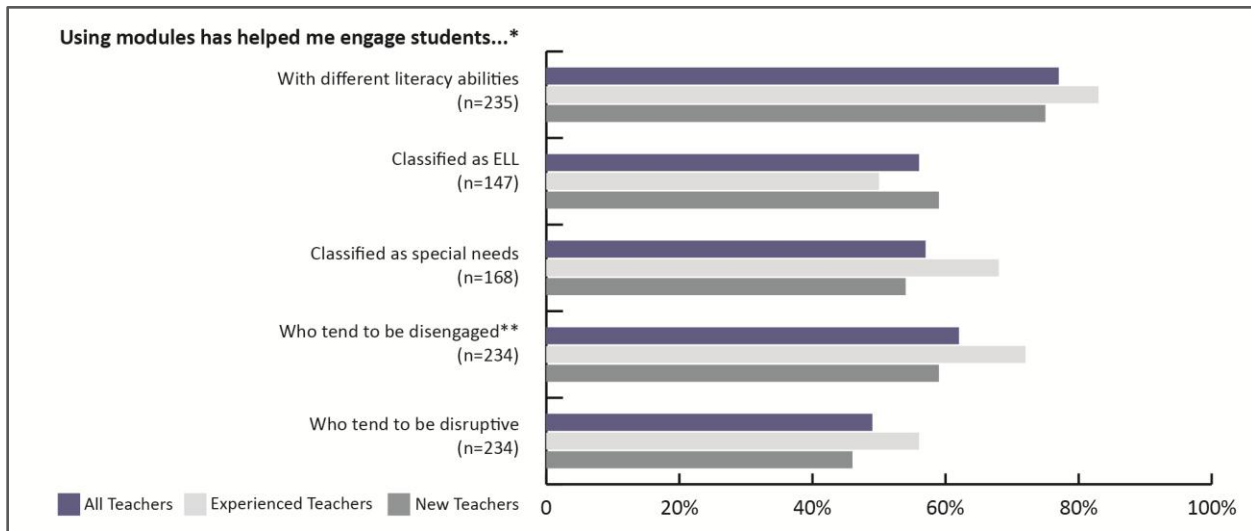


Teachers said that student resistance to writing caused lack of engagement with modules. Teachers in every district cited student resistance, even “dread” of writing as a challenge. In particular teachers of classes such as science or reading where students did not expect to do much writing, noted student complaints about this. Some teachers saw this as a challenge to overcome in order to engage students in more rigorous literacy tasks and support increased student learning.



Modules are helping teachers engage a range of kinds of students. Figure 12 indicates the percentage of teachers surveyed who agreed that modules helped them engage specific groups of students. With the exception of ELL students, experienced teachers were more likely than new teachers to report that modules helped them engage students.

Figure 12. Using modules to engage students



*Only teachers who indicated in a previous question that they taught ELL or special education students answered questions about using modules with those students.

**Differences between experienced and new teachers were significant at the .1 level.



Overall, Experienced teachers reported being more successful in using the modules to engage a range of students. They were more likely to indicate that they could use modules to engage special education students, students with different literacy abilities, and students who tend to be disengaged or disruptive. Increased experience with LDC modules may also increase teachers’ strategies for engagement and their ability to engage a range of students. It is not clear why new teachers reported more positively about engaging ELL students.

While a majority of teachers indicated that modules helped them engage students with different needs, **sizeable percentages did not agree that modules helped them engage these groups of students.** Further research is needed to understand this issue more fully. The findings above about teachers’ ability to differentiate instruction with the modules offer a possible explanation. A third of teachers surveyed disagreed that modules are flexible enough to meet the needs of all their students, which may have affected teachers’ perceptions of their ability to engage students, especially ELL students, special education students, and students who tend to be disruptive.

UCLA National Center for Research on Evaluation, Standards, & Student Testing (CRESST) is conducting research and validation studies to generate new knowledge about student learning by using assessment tasks as outcome measures in a study of the impact of the LDC initiative. These findings will be available in winter 2013.

Robust Implementation Indicator: Increased Student Learning

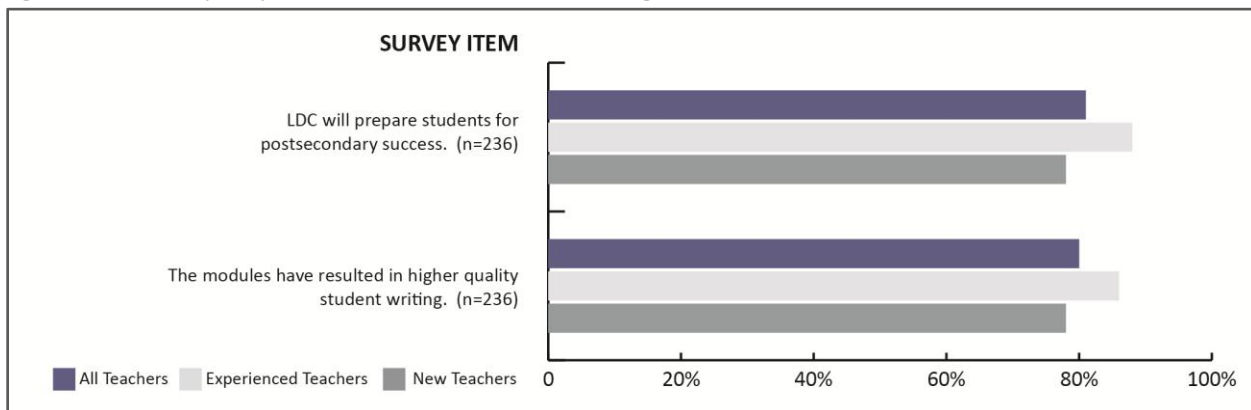
Teachers perceive improvement in student learning

In order for the LDC initiative to be sustained, teachers need to see evidence that modules are improving student learning. In Year One, there was strong survey and interview data indicating that teachers believe modules have a positive impact on student learning. In Year Two this positive trend continues, although there are some differences between Experienced LDC teachers and New LDC teachers' assessments of student learning.



Teachers believed modules led to increased learning. Experienced teachers were even more likely to affirm these benefits than new teachers. Figure 13 demonstrates that a strong majority of teachers reported that modules have resulted in higher quality student writing. Experienced teachers' (86%) level of agreement with this survey item was eight percentage points higher than New teachers (78%). A similar trend appeared with teachers' reports that LDC will prepare students for post-secondary success, where more than three-quarters of overall respondents (81%) think this is the case, but Experienced teachers (88%) are even more likely to see a link between modules and post-secondary success than New teachers (78%).

Figure 13. Teachers' perception of LDC's effect on student learning



Teachers reported that continued engagement with modules improved student writing. There is emerging evidence from the teacher interview data that as students gain experience with modules, their writing improves. Teachers reported that:

- Students who completed a module in Year One exhibited stronger writing skills and were better prepared to handle the rigorous demands of modules in Year Two than those students who had no module experience in Year One. As one teacher noted:

One of the really good things, and I credit this to what we did last year, because when my kids came to me they'd had a year of the LDC in reading [when they were 6th graders]. They seemed to come knowing they had to make references to text now when they're writing...At the beginning of the Year One wouldn't have even thought to ask them and yet I was getting writing with a lot of references to text or something in reality to support what they were saying. So that was great. I said "Oh my god, my kids got this last year and remembered from over the summer. (New LDC teacher; middle school ELA)

- As students gained experience with modules during the course of Year Two, they also exhibited stronger writing skills, evidenced by teachers' comparison of student work from the first module with later modules they taught. Said one teacher:

Well it was the second time that they had done a five paragraph essay and they did better than they did the first time - so that was great. They improved with their technical skills, internal citations, using multiple sources, etc. (New LDC teacher; middle school ELA)



Using the instructional ladder to build toward the template task supports student success. The structure of the module enables them to keep the end template task in front of students and to link all of the activities and tasks in the instructional ladder to the template task. Teachers said:

We start with the prompt, and then kind of move backwards from there. And I think that really helps them. But that's kind of how the module is set up. It asks you to do that. (Experienced middle school social studies teacher)

Some days their exit [slip] is just to explain how what we did connects with the ultimate goal so they are always making that connection with the mini-tasks and how they build toward the goal. (New middle school ELA teacher)



Teachers indicated that their students' interaction with text has become increasingly sophisticated. In interviews, they reported that:

Students are better able to engage with text as a result of the modules

I could see the increased level of reading, interpretation. I had them read, underline words and phrases they didn't understand. Instead of glazing over words...they looked them up. We had a word board at the time for that unit. There was a lot of terminology that I now I see students using in discussions, and I know they wouldn't have used them had they not seen those higher-level readings. (New High school social studies teacher)

Yes, some of the kids that weren't getting the beginning, when we started reading, once they got the hang of it, I'm seeing them read a lot more quickly and with greater depth of understanding. (New high school ELA teacher)

Students are able to identify and use text as supporting evidence in their papers

I definitely thought it forced the kids to really think about something that they normally wouldn't have, and it made them really have to look for evidence to support their claims. They weren't used to the argumentative; they were used to an informative writing style. This really pushed them out of the box; and it was nice to see that most of them were capable of the work. (New high school science teacher)



Teachers reported that their use of modules has resulted in increased student content knowledge. Teachers reported that students engaged in rich discussions about the material, which also demonstrated understanding. Teachers said:

[They] learned more deeply than reading the textbook. [Working on] this paper gave them a very good look into how teepees are made, how and why Indians lived in them, gave them a look into their culture. Also the homesteaders - how they made sod homes. They read primary sources on life in sod homes. This year's class definitely understands more about Indians and homesteaders than any other year. (New middle school social studies teacher)

I'm kind of a Socratic questioner. So I'll go around and I'll ask a kid a question, he'll give me a response, and I'll say, well, why do you think that is? And he'll give me a response and I'll say, okay, well good response. What do you think would have happened if this happened? And they'll be able to respond to me, which I feel like they're able to do that because we have gotten so deep into the content. (New middle school social studies teacher)



Almost one-third of teachers reported that module use conflicted with preparation for state assessments. About two-thirds of all LDC teachers surveyed (68%) reported that their use of modules could enhance their students' ability to perform well on their current state assessments. In both Year One and Two, interviews in the site with the lowest level of agreement indicated that teachers have questions about LDC's alignment with their state assessment and are concerned that the LDC instructional materials do not directly address tested skills. In other sites, teachers noted that using modules, which can last 2-4 weeks, can prevent them from covering required curriculum, putting their students at a disadvantage for their state assessment. As one teacher noted:

I feel that there is an area where it's [LDC is] somewhat lacking in terms of explicit instruction with reading skills where 6th grade esp. is coming from elementary level and still needs that explicit instruction with basic reading skills. I realize skills are embedded as practice within the LDC framework. However, I rely heavily on [benchmark] data and curriculum for gathering that data. [Specific Program] is countywide to teach those skills and gather data.... [As far as] what levels my students are, I don't look to LDC for that. (Experienced LDC teacher, 6th grade ELA)

MEDIATING CONDITION

Teachers' reports of whether their use of modules could enhance their students' ability to perform well on their state assessments differed significantly by site, reflecting the important influence of different state assessments' relationship to LDC. In two sites, at least three-quarters (75%-85%) of teachers reported that their use of modules could enhance their students' ability to perform well on their state assessments. In the other two sites, teachers' level of agreement with that survey item ranged from 64% to 51%.



Some teachers were unsure about LDC's impact on literacy skills or content knowledge. At least 10% of teachers did not agree that 1.) LDC would prepare students for postsecondary success, 2.) the use of modules resulted in higher quality of writing, and 3.) LDC would prepare their students for state assessments. This disagreement was more evident with New teachers who have had less experience with LDC. Interview data also suggests that more new teachers were not ready to assess the academic impact of the modules. In some cases,

teachers wanted to see state assessment results before assessing LDC’s impact on student learning.

Intermediate Outcome: Broad and Deep Instructional Change

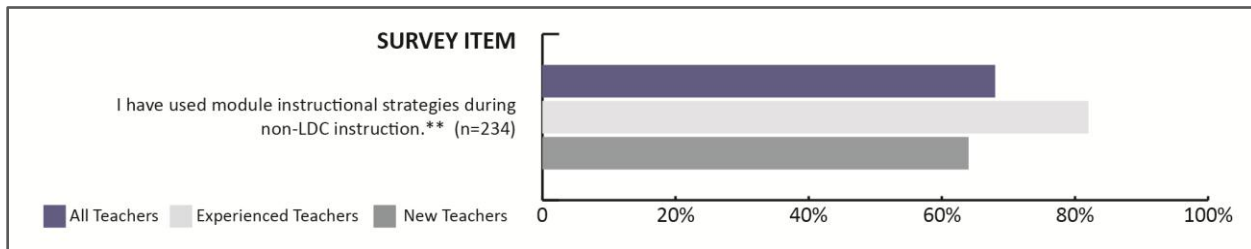


An important indicator of the sustainability of an instructional or curricular initiative is the degree to which teachers’ instructional practice has changed as a result of their participation in the initiative. In Year Two of the initiative, experienced teachers were asked if their level of tool use has increased since Year One, and all teachers were asked if the initiative has gained traction in their schools and whether their instructional practices had evolved to include LDC-type activities when they were not using modules. Results are presented below.



LDC strategies have extended into non-module instruction. Seventy percent of all teachers indicated that they are using LDC instructional strategies during non-module instruction. This is true for a significantly higher percentage of Experienced teachers (82%) than New teachers (64%) (see Figure 14). This finding suggests that instructional change begins in the first year of tool use for many teachers; and it expands and deepens as teachers gain more experience with the tools.

Figure 14. Teachers’ reports of using LDC instructional strategies during non-module instruction



**Differences between experienced and new teachers are significant at the .05 level.

Interview data also indicated several ways that teachers are including LDC literacy activities throughout the year and not just when they are teaching modules:

Including more opportunities for students to read and write during the school year

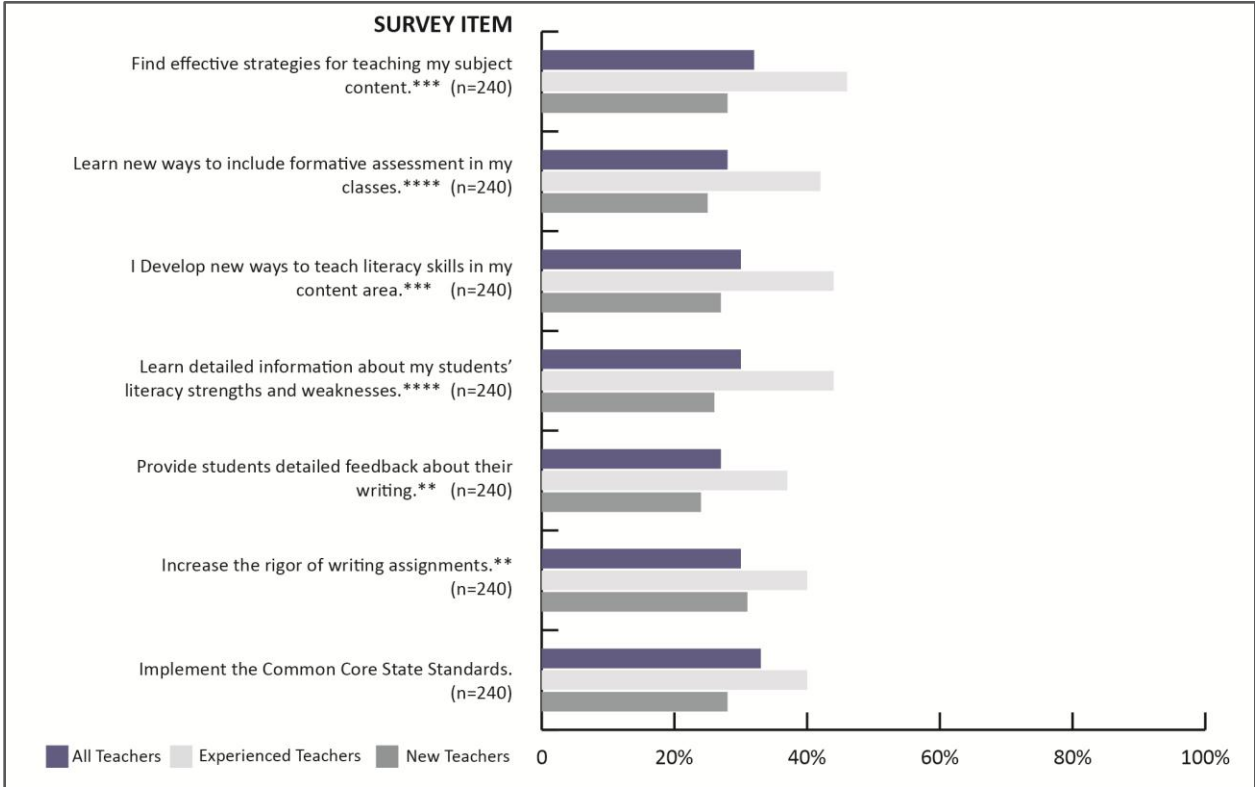
I’m trying to incorporate more reading and writing and giving them more opportunity to read an article and write something about what they think and summarize what they think and use what they know in writing ...It directs my teaching and my planning to incorporate reading and writing more. (New middle school science teacher)

Using mini-tasks (module format) and LDC strategies

I guess you could say I’m starting a module with my prep class. To me, any time you’re doing a DBQ (document based question), I’m not going to depart from the skills that we’ve discussed in LDC, so I’m not filling out the LDC paperwork, but definitely what we’ve discussed, and the skills in terms of implementing that in class, absolutely...We don’t fill out all the LDC paperwork, but I think it definitely has overlapped with everything that we do. (Experienced high school ELA teacher)

Similarly, as Figure 15 indicates, Experienced LDC teachers reported more often than New teachers that modules helped them teach their content, include formative assessment, teach literacy, and implement the CCSS when they are not teaching modules. Over a third of Experienced teachers reported that some of the core elements of the LDC modules have impacted their non-module instruction, compared to less than a third of New LDC teachers.

Figure 15. Teachers' perceptions of how LDC has impacted their everyday non-module instruction



** Differences between experienced and new teachers were significant at the .1 level.

***Differences between experienced and new teachers were significant at the .05 level.

**** Differences between experienced and new teachers were significant at the .01 level.

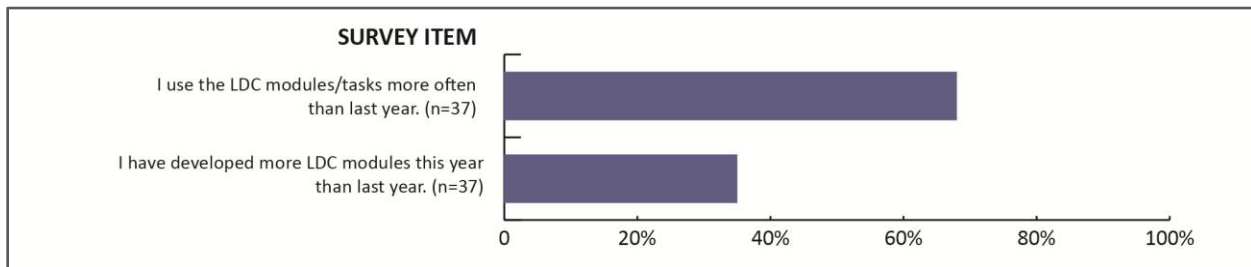
One key lesson teachers have learned from using modules is the importance of unpacking the teaching task for students at the beginning of a module or a non-module lesson, which allows students to make connections between the instructional activities they are asked to complete and the “end product.” A fully developed module provides a step-by-step process that supports writing and it is very helpful for students to have the teaching task and to know where they are headed. This process provides a structure for teaching writing and makes teaching and learning more transparent for teachers and students. One Experienced high school ELA teacher stated:

Other than being more organized, and stating my objective for what I want them to learn at the beginning. It was the LDC that caused that to happen; we didn't have Springboard last year to teach us that. The LDC initiative taught us that, taught me that. I had not done that before. I was one of those teachers that liked the surprise ending. I liked teaching stuff and then have them be so shocked at how they could do something. And that's not always effective. A lot of times it's not. And so, it was just with the LDC that I started saying, hey, this is what our final thing is going to be, and have them aware of that the entire time. So yes, it's definitely effective; it's changed my teaching in that manner.



Experienced teachers reported that their participation in LDC has increased compared to their first year in the initiative. For example, 68% of Experienced teachers surveyed indicated that they have used more modules than last year and 35% reported that they have developed more LDC modules this year (see Figure 16). The percentage of Experienced teachers who developed more modules this year may seem fairly low; however, many teachers reused their Year One modules after revising them.

Figure 16. Experienced teachers' reports of increased participation in Year Two

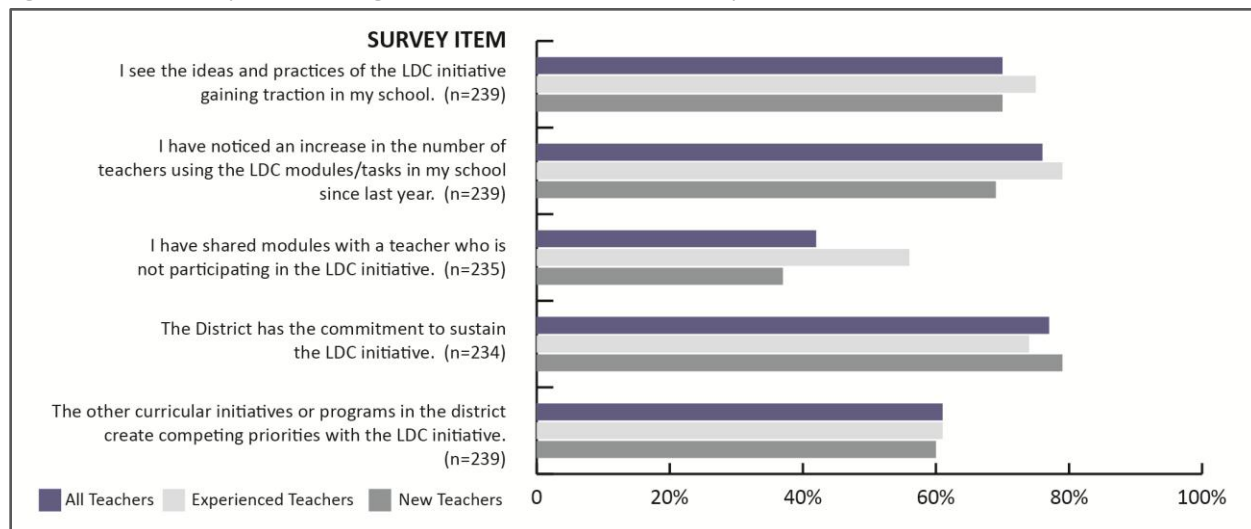


Most teachers report that tool use is spreading and deepening at their schools. A strong majority of teachers (70%) reported that the ideas and practices of the LDC initiative are gaining traction in their schools and this perception was slightly more common with Experienced teachers (75%) compared to teachers who were new to the initiative (70%). Both Experienced (79%) and New (69%) teachers reported that they have noticed an increase in the number of teachers using LDC modules in their school since Year One. Over half of Experienced teachers (56%) and more than a third of New teachers (37%) indicated that they have shared an LDC module with a teacher who is not participating in the initiative. Lastly, over three-quarters of teachers (77%) reported that their district has the commitment to sustain the LDC initiative (see Figure 17). In interviews, teachers indicated that their district and school leaders are interested in sustaining the LDC initiative, with very little difference between New and Experienced teachers.

Yes, [LDC is gaining traction in our school]. I think it's something that's definitely going to be pushed that we use. I think it's good for a lot of different content areas. (New high school social studies teacher)

Yes, [LDC is gaining traction in our school]; we're getting a lot of support from our administrators, our supervisors, and I think it definitely is where we're headed. (New high school science teacher)

Figure 17. Teachers' reports of the degree to which the LDC initiative has spread in their schools



Teachers reported some stumbling blocks for continuing the scale up of LDC.

Almost two-thirds of teachers (61%) reported that there are other curricular initiatives or programs in their district that are creating competing priorities with the LDC initiative (see Figure 17). The time it takes to develop and teach modules is a particular challenge. Teachers are still trying to find time to collaborate with one another to develop modules and find a balance between covering their required content and teaching at least two modules. Additionally, as the initiative has spread to include New teachers in some sites, the training and implementation strategy of the sites has also changed. Both Experienced and New teachers expressed concerns about the knowledge gap between New teachers and Experienced teachers.

Concerns about covering content

It takes time, the time to do it and the kids to be successful needs to be built-in their defense-built in so that they can do that. I think right now most of us are pressed to get in the content. And so this is--I think it's a way to learn the content but I think a lot of teachers will see it initially as an extra thing. (New high school science teacher)

Concerns about training and teacher knowledge

I don't think it's going to in [gain traction] and of its own accord. I think teachers who aren't directly trained, who don't have hands-on [experience] with it, aren't going to get it. (Experienced middle school ELA teacher)

You have the other teachers who have never had any say so in the development or any professional development and they are just receiving the module and they are uncomfortable following it, they do not understand it and that is carrying over into their implementation of it. (Experienced middle school ELA teacher)

Recommendations

At the end of Year Two, Experienced LDC teachers exhibit more signs of robust implementation than do teachers new to the LDC initiative. They are more likely to report high buy-in with initiative principles. They have higher levels of knowledge about tool use and report more positively about module implementation. They also report higher levels of student engagement and of student learning. This is a promising trend. At least in the early stages of the initiative, increased knowledge of and experience

with the tools seems to lead to increased confidence in the tools and higher perceptions of positive outcomes. As the use of the LDC Framework continues to expand, we provide a set of recommendations for supporting and sustaining this expansion.

Support New LDC teachers.

- **Provide targeted support for new LDC teachers.** Our research indicates that learning to use and develop modules is a developmental process that gets easier as teachers gain experience and develop strategies. Provide scaffolding for new teachers in a range of ways. Supporting Experienced teachers to work with New teachers is an especially promising strategy.

Help teachers use tools with fidelity.

- **Communicate more clearly the non-negotiables of LDC implementation.** At the classroom level, there is a wide range of practices, especially in terms of use of the LDC rubric and the framework. Communicate in multiple ways to participants at all levels what practices and documents need to be in place to ensure fidelity of implementation.

Provide continued Professional Learning Opportunities to address key teacher needs.

- **Teachers who do not develop modules should have the opportunity to deepen their understanding of the LDC framework in other ways.** Developing modules has provided teachers with the opportunity to grapple with and understand the framework. Year Two research indicates that revising modules with an Experienced teacher or coach is another way for teachers to develop the necessary knowledge to use the LDC modules. Teachers who have not had the opportunity to develop or revised modules can benefit from the opportunity to do so, so that they have an understanding of the framework and they feel more ownership of the modules they are teaching. As sites experiment with additional ways to develop teacher knowledge of the framework, it is important to share best practices across sites.
- **Provide differentiated support for science and social studies teachers.** These groups faced particular challenges in using modules in their context and in taking on the task of teaching literacy skills. While many of these teachers reported that modules were positively impacting their instructional practice and student learning, they continued to have many questions about teaching with modules, especially around using the instructional ladder and helping students gain writing skills. Content-specific professional development could be helpful, as could teacher-to-teacher support and coaching by experienced LDC teachers.
- **Provide support for teachers to address two key challenging aspects of literacy development in the modules:**
 - Finding appropriate reading materials and crafting instructional strategies to help their wide range of students read and analyze text
 - Responding to and providing productive feedback for student writingThis support can be provided by professional development providers and at the site level.
- **Continue to increase Initiative capacity to provide training and materials to help teachers differentiate and scaffold instruction.** Helping teachers address their concerns

about differentiating LDC instruction is crucial to robust implementation of the tools and to ensuring that they support improved learning outcomes for all students. In addition, partners, districts and schools need to provide targeted help for teachers in their sites on this issue. In particular, teachers need support to select and employ strategies for the instructional ladder that will meet the needs of their students.

Create time and space for LDC for Effective Tool Use.

- **District and school leadership need to help teachers address the time challenges that can undermine teachers' participation in LDC.** Leaders can communicate that LDC implementation is a priority and can also assist with scheduling and strategic support for resolving the time challenges which teachers highlight:
 - Developing and preparing to teach modules
 - Fitting module instruction into existing curricula and schedules
 - Responding to student writing
- **District and school leaders can help teachers align LDC tool use with their pacing guides.** Teachers continued to express concerns about the time it takes to teach modules. While some teachers reported that there is a pay-off in using the modules, even when they have fallen behind in their pacing guides, some teachers are concerned about curriculum coverage. District and school leadership should work with teachers to revise pacing guides so that the use of LDC modules is no longer compromising curriculum coverage, but an important part of that particular curriculum.
- **District and school leaders should communicate the degree to which LDC will prepare students for current assessments.** Some teachers continue to express concerns about whether LDC is aligned to current state assessments. When teachers perceive that the LDC tools are misaligned with assessments, they may be more reluctant to use them with fidelity. District and school leaders can help ease this tension by showing how these tools are aligned with state assessments and also how their use of the tools will prepare students for future CCSS assessments.

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