Brief #1: LDC's Influence on Teaching and Learning

Prepared by Research for Action

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Introduction

About LDC

The Literacy Design Collaborative (LDC) offers a set of literacy instructional and formative assessment tools. The tools were developed to help educators better prepare all students to meet the Common Core State Standards (CCSS) and succeed beyond high school in college and careers. LDC’s goal is to provide supports for educators to implement the instructional shifts called for by the CCSS. LDC offers teachers a framework for individually or collaboratively building curricula in their content area. It connects the CCSS with secondary science, social studies and English/language arts.

About RFA’s Research on LDC

Research for Action, a non-profit education research organization, has been studying LDC since its inception in 2010. With the support of the Gates Foundation, RFA has been examining the implementation of LDC, as well as the context and conditions necessary for scaling up and sustaining LDC tool use, and for maximizing their impact on teacher effectiveness and student learning. The resulting research products aim to inform a wide audience including funders, intermediary organizations and LDC partners, districts, and the teachers and administrators using the tools. A complete set of products associated with this project can be found at http://www.researchforaction.org/rfa-study-of-tools-aligned-ccss/. This brief draws on a 2013 survey of 3,324 English Language Arts (ELA), Science, and Social Studies teachers in 21 states (response rate of 54%) and recent interview data from three case study sites—two school districts and an education service agency (ESA). Within the ESA, interviews took place in four districts.

About CRESST’s Research on LDC

Partnering with RFA, the National Center for Research on Evaluation, Standards and Student Testing (CRESST) examined the implementation and impact of LDC tools in two contexts: eighth grade history/social studies and science classes in Kentucky and Pennsylvania, and sixth grade Advanced Reading classes in Florida. The two studies used quasi-experimental designs (QED) to compare LDC student performance to matched samples of students from outside the LDC districts in each state. CRESST used multiple measures to gauge tool implementation and
impact, including student performance on statewide and local assessment in reading, writing, and social studies, depending on the state. Findings from CRESST’s research are indicated in italics below; a more complete report of CRESST research findings will be available shortly.

Purpose of this Brief

This brief presents RFA’s research on teachers’ perspective on how the LDC tools are affecting their teaching practice and how these changes in practice seem to be influencing their students’ engagement and learning. In addition the brief highlights CRESST’s research findings related to teacher practice and student learning. This brief may be useful for:

- **Teachers and administrators** interested in learning more about implementing LDC in their classrooms, schools, and districts;
- **Experienced LDC teachers** who wish to understand how their LDC experience fits into the larger universe of teachers’ work with LDC tools across the country; and,
- **School and district administrators** interested in understanding more about how LDC may affect teaching and learning in their district.

Teacher Practice

What do teachers say about whether tools are helping them change their instructional practice?

In the spring of 2013, three years after the introduction of LDC, over 1,500 participating teachers shared their experiences in a survey. A large majority of these teachers reported that LDC was important to their instructional practice. Teachers recounted that LDC had affected their practice in multiple ways, including helping them to:

- learn new strategies for teaching subject matter and literacy skills;
- use formative assessment and learn about students’ strengths and weaknesses;
- provide feedback to students;
- increase rigor;
- raise their expectations for students;
- differentiate instruction; and
- engage students.

Below we explore these areas in greater depth, report challenges teachers faced in integrating LDC into their instruction, and share CRESST findings related to teachers and instruction.
1. **LDC is Increasing Rigor and Expectations**

![Bar chart showing increased rigor and expectations]

More than three-quarters of LDC teachers reported that the tools raised their expectations for student work and helped them increase the rigor of writing assignments.

*I’m starting to realize that I underestimated them. I’m surprised at what they can do….I’m just more confident in their abilities.* – Middle school ELA teacher

2. **LDC Supports Teaching Literacy Skills and Subject Content**

![Bar chart showing support for literacy and subject teaching]

Large majorities of LDC teachers reported that the tools provided them with new strategies for teaching both their subject content and literacy skills. The tools appear to be assisting teachers with a challenge central to common core implementation – infusing literacy instruction across content areas while also engaging students in rigorous exploration of subject content.

*It has made me focus 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.*

– Middle school social studies teacher

*LDC has totally changed my way of thinking about what I do in class. [She now gives students tasks that require more in-depth analysis of content.] I pared down the amount of questions I was asking and made them more meaty to get more out of them.*

– High school social studies teacher
3. LDC Offers Formative Assessment

Large majorities of LDC teachers reported that the tools helped them incorporate more formative assessment into their classes, learn information about students' strengths and weaknesses and give students more detailed writing feedback. The ongoing formative assessment of student writing through mini-tasks and multiple writing drafts gave teachers the opportunity to assess students’ needs and provide support for them to meet high standards.

I got more out of the students that really struggled than I expected, because it was broken down for them. – Middle school ELA teacher

4. Differentiation: LDC Modules Provide Flexibility

The majority of LDC teachers said that the tools helped them differentiate instruction. LDC teachers were especially likely to report that the tools helped them differentiate for advanced students.

A high school science teacher described how LDC was helping her adjust her instruction based on student needs: “My instruction is more student-centered by asking questions like, ‘What do you already know? What do you need to know to be successful with this?’”
The most common strategies for differentiating module instruction were:

- using different level texts for different students;
- assigning students different kinds of products;
- providing choice about writing assignments;
- using mixed-level pairs or groups; and
- providing extra help and scaffolding to students who needed it.

*It’s a way for me to give them [special education students] grade level material.* – Middle school ELA teacher

5. LDC Framework Informs Instructional Practice

*I’m trying to incorporate more reading and writing and to give students more opportunity to read an article, use what they know, and summarize what they think. It directs my teaching and my planning to incorporate more reading and writing.* – Middle school science teacher

6. Teachers are Using LDC Strategies beyond LDC

Almost three-quarters of teachers said that they were infusing strategies from LDC modules into their ongoing instruction.

*[LDC] makes me focus a little bit more on having my students practice reading and writing throughout the school year. It has helped me incorporate that into my instruction, not just when we are working on a module, but throughout all of my units.* – Middle school science teacher
CRESST’s research with teachers in Kentucky, Pennsylvania, and Florida confirmed these findings. Teachers reported positively about the professional development they received. They found the tools helpful and effective in: implementing academic standards; using formative assessment; incorporating more complex thinking into curriculum and instruction; and improving student learning.

Areas of Opportunity: Teacher Practice

Responding to student writing. Almost three-quarters of teachers (72%, n=1591) surveyed agreed that LDC modules helped them provide students with more detailed feedback about their writing. However, almost half of teachers (45%, n=1516) reported that they are unsure about how to best give productive feedback on student writing and a large majority of teachers (86%, n=1516) reported that it is difficult to find the time to respond. In interviews, science and social studies teachers were especially likely to request help with improving the quality of their writing feedback.

Time. Over half of teachers (55%, n=1516) reported that using LDC takes too much time away from covering required curriculum topics. Some teaches reported a tension between covering material needed for state test preparation and using LDC.

Differentiation. Teachers noted the need for more training on differentiating LDC instruction and tools for different types of learners. Almost three-quarters of teachers surveyed (73%, n=1179) said they would like more professional development on differentiating LDC instruction. One need is more strategies to help the lowest level students meet the increased rigor of LDC.

Need for Strategies and Supports. Both CRESST’s teacher survey results and student performance on CRESST measures indicate that achieving new college and career ready standards are challenging for many students. All teachers, and in particular subject matter teachers, may need additional guidance and resources to support struggling students’ literacy development.
Student Engagement and Learning

What do teachers say about whether the LDC tools are engaging students and enhancing student learning?

1. LDC Can Support Student Engagement

Teachers highlighted the following characteristics of the modules as important for promoting student engagement:

- high interest module topics;
- argumentative tasks which call on students to take a stand;
- mini-tasks providing students different approaches for learning;
- clear communication of the end goal/final product;
- student choices built into the template task; and
- active learning strategies such as small group work.

Many of these characteristics encourage student ownership of the work.

2. LDC Supports Student Learning in Multiple Ways

More than three-quarters of LDC teachers responding to the survey reported that tool use was leading to positive learning outcomes in every area of student learning the survey addressed. Below we describe some examples of these reports of student learning.

3. LDC Can Augment Students’ Literacy Skills

The LDC framework is effective in improving students’ literacy skills. 92% n=1592

The modules have resulted in higher quality student writing. 79% n=1572

When I taught the most recent LDC module, the majority of my students improved their literacy skills. 76% n=1571
More than three-quarters of teachers reported that, as a result of LDC, students’ literacy skills are improving and their writing is of higher quality.

*My kids’ writing has improved so much from their first to their second module that I can’t wait to see their third.* – Science teacher

*I’m pretty confident in the papers that they’re turning out. I’ve seen them grow. And it might be painful for them, but I know that they’re growing.* – High school ELA teacher

4. **LDC Supports Student Academic Preparation**

| The LDC framework is supporting my students’ college-readiness. | 87% n=1572 |
| When I taught the most recent LDC module, the majority of my students improved their understanding of content. | 81% n=1571 |
| The modules help prepare my students for current state assessment(s). | 75% n=1506 |

At the time the survey was conducted, participating states were still in the process of transitioning to full implementation of the CCSS. Despite the fact that curricula, assessments and the CCSS are not yet fully aligned, three-quarters or more of LDC teachers agreed that LDC is supporting students’ understanding of subject content, as well as their college-readiness and preparation for state assessments.

*It definitely lines up very closely [with state assessments]; it’s important and this is just one more way that we can help those students that aren’t achieving proficient scores.* – High school science 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, okay, well good response. What do you think would have happened if this happened? And they’ll be able to respond to me. I feel they’re able to do that because we have gotten so deep into the content.* – Middle school social studies teacher
5. LDC had a Positive Impact on Student Learning in Kentucky

Relative to typical growth in reading from seventh to eighth grade, the effect size for LDC in Kentucky eighth grade history/social studies and science represents an additional 2.2 months of schooling. There was no evidence of LDC effects on student performance in other study settings.

Areas of Opportunity: Student Engagement and Learning

Engaging Students. Engaging students with rigorous and sustained work with modules can be challenging. Teachers cited students’ 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.

Possible Differential Impact Initial student outcomes analyses in Kentucky and Florida raise questions about whether LDC may be differentially effective for various groups of students. For example:

- Students who began the school year with higher prior achievement may have benefited more from LDC than did students who began the school year with lower prior achievement.
- Low-income students also appeared to have benefited more from LDC.

Note: CRESST regards these findings as tentative, meriting further replication.

Conclusion

This research took place while many participating districts were scaling up their LDC implementation. Therefore, 43% of those responding to the survey were new to LDC and many other teachers were still building their knowledge about how best to design and implement modules. In this survey and previous surveys of LDC participants, responses of educators with LDC experience were consistently more positive than those of teachers still learning about LDC. Yet, majorities of all responding teachers reported that LDC was positively affecting their practice, student engagement, and student learning in a number of different ways. These responses highlight promising trends. LDC, along with participating districts and intermediary organizations, can continue to track teacher perceptions as implementation grows broader and deeper.