

ESTABLISHING A STRONG FOUNDATION

District and School-Level Supports for
Classroom Implementation
of the LDC and MDC Frameworks
Executive Summary

Research for Action • September 2011

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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 Core Common State Standards (CCSS) into their classroom instruction. Literacy experts have developed a framework and a set of templates that teachers can use to develop content area modules focused on high quality writing tasks closely tied to subject area texts. Math experts have developed formative assessment lessons (FALs) that teachers can incorporate throughout the year's curriculum. Across both content areas, the tools target the "instructional core"¹ by raising the level of content; enhancing teachers' skill and knowledge about instruction, content and formative assessment; and catalyzing student engagement in their learning so that they will achieve at high levels. These tools were piloted in multiple settings during the 2010-11 school year. In some cases, school districts applied for and received grants to implement the Literacy Design Collaborative (LDC) or the Mathematics Design Collaborative (MDC). In others, regional intermediaries served as the grantee and as primary organizer of the work; and, in still others, national networks were the grantee and the organizer.

The Foundation has asked Research for Action (RFA) to study the early adoption of these tools, focusing particularly on teachers' response to and use of the tools. Our research during the first year of implementation consisted of site visits to eight (four literacy and four math) pilot sites, interviews with a range of teachers, administrators, technical assistance providers and other foundation partners, as well as surveys to teachers in all participating sites in spring 2011. Ninety-six LDC participants took the survey for a response rate of 71%. Eighty-three MDC participants took the survey for a response rate of 53%. It's important to note that survey findings about early outcomes are based on teacher perceptions and self-report.

This executive summary provides an overview of our analysis of the school and district-level conditions and contexts that lead to successful adoption of the tools, and a status report of the degree to

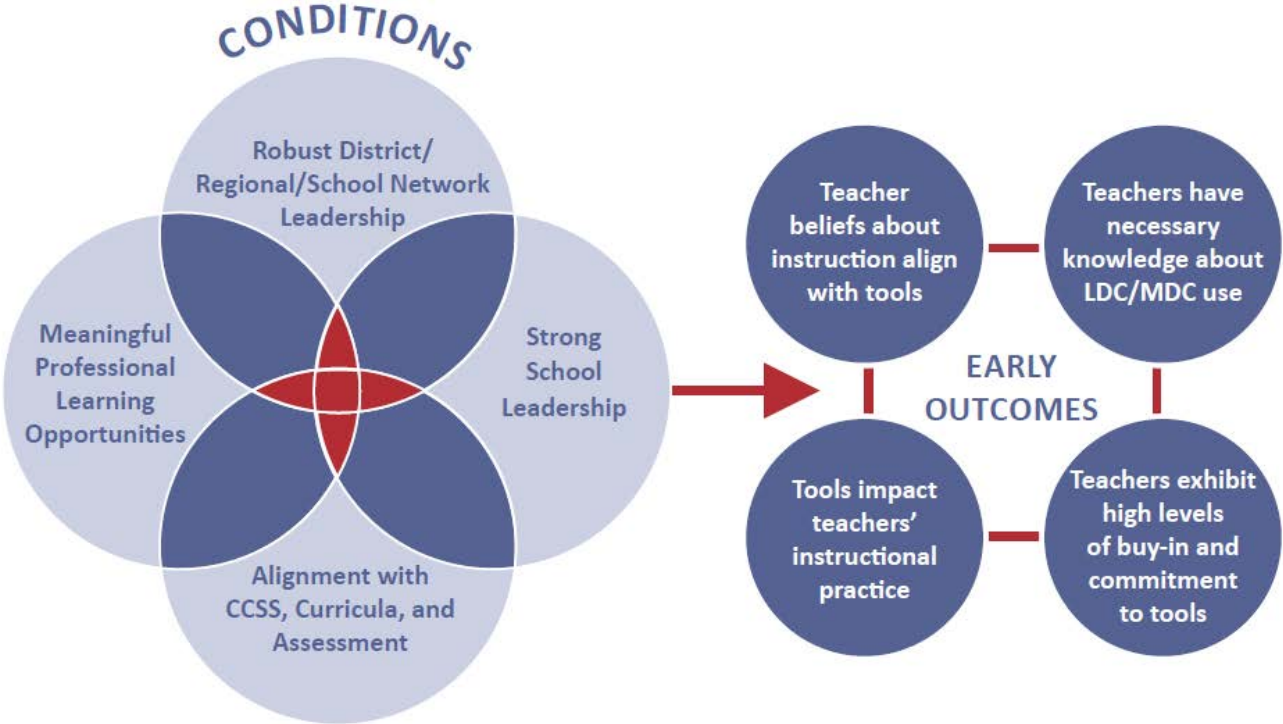
¹ Elmore, R. (2010). The instructional core. In E. City, R. Elmore, S. Fiarman, & L. Teitel (Eds). *Instructional rounds in education: A network approach to improving teaching and learning* (p.21-38). Cambridge, MA: Harvard Education Press.

which such conditions are present in pilot sites after one year of implementation. It examines the actions that school and district leaders can take to support teachers’ adoption and effective implementation of the tools.

Conditions that Support Positive Early Outcomes

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

Figure 1. Map of conditions for early outcomes after year one of early implementation



As demonstrated in Figure 1, we have identified four conditions as central to successful implementation of the literacy and math instructional tools. The conditions include:

- **Robust district/regional/school network leadership** to guide the initiative, oversee professional learning opportunities, build engagement and knowledge among stakeholders, and monitor alignment.
- **Strong school leaders** who will champion the use of the LDC and MDC tools, and who will establish and maintain supportive school structures (for example, time to discuss tools with colleagues) and provide the necessary resources and support.

- Intensive, ongoing, **meaningful professional learning opportunities** that incorporate content knowledge as well as instruction, and that include both collaboration with peers and classroom-based assistance.
- **Alignment with CCSS, curricula and assessments** so that teachers do not receive mixed messages about the importance of the initiative to achieving local goals for instructional improvement and student learning.

These conditions for success were identified by analyzing their relationship with early outcomes exhibited by teachers that we would expect from the LDC and MDC initiatives, including:

- Teacher **beliefs** about literacy/math teaching and learning that are aligned with the goals of the initiative;
- Teachers' reported **knowledge** of LDC/MDC and how to use the instructional tools effectively;
- Teachers' report of using LDC/MDC **practices**; and
- Teachers' report of a high level of **buy-in** and commitment to using the instructional tools.

We posit that the relationship between the conditions for success and early outcomes is straightforward: when the conditions and supports that we have identified are present, teachers are more likely to display and report early indicators of successful adoption and use of the tools.

Findings: Conditions for Success and Relationship to Early Outcomes

Condition 1: Robust District/Regional/School Network Leadership

Leadership at the district and regional levels can be found in points of contact (POCs), a term coined to define the individual responsible for managing and maintaining the initiatives at the district or regional level and in school/network leadership where networks of schools were implementing LDC/MDC. Some intermediaries also provided leadership by serving as partners at the regional or state levels.

Year one research indicates that the following aspects of robust leadership helped to create a firm foundation for positive early outcomes:

- **Leaders possess expertise in literacy and/or math instruction.** When key leaders, such as POCs, are well-versed in literacy/math education, it gives the initiative greater credibility and positions the POC to more effectively coach participants.
- **Leaders build relationships and connections within and across schools to educate and engage stakeholders in use of literacy or math tools.** POCs work across levels within the district/region/school network with central office administrators, school-based leaders and teachers; they also connect participants at all levels to each other.
- **Leaders marshal resources and literacy/math-focused partners to support use of instructional tools.** Leaders identify and facilitate supports to implement LDC/MDC, monitor changes in

policy and practice, and serve as an advocate for the effective allocation of resources to support the initiative.

- **Leaders develop and communicate clear messages about the goals of the initiative, purposes of the tools and their connections to CCSS and local accountability systems.** POCs, as well as other district, regional, and school network leaders, effectively communicate the goals of the initiative to multiple stakeholders to create shared understanding and increase buy-in; the ways that LDC/MDC supports adoption of the CCSS; and how the tools align with existing curricula, programs and state and local assessments.

How did district/regional/school network leadership contribute to early indicators of successful implementation?

Qualitative data indicate that strong district/regional/school network leadership was clearly related to successful literacy and math tool implementation.

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

Promising evidence of strong district/regional/school network leadership in both the literacy and math initiatives was seen across study sites. We provide a summary of our findings in Table 1 below.

Table 1. District/regional/school network leadership in action

LITERACY	MATH
PROMISING EVIDENCE OF SUCCESS	
<p>Regional partners existed in some sites. Their roles varied across sites, but, in all cases, they provided additional support, resources and management skills to aid implementation.</p>	<p>All POCs were highly involved in the MDC initiative and execute most activities.</p>
<p>All POCs had expertise in literacy instruction, which positioned them as effective LDC leaders.</p>	<p>District POCs with expertise in math instruction were able to provide teachers with instructional support in a more robust way.</p>
<p>In every district, POCs played a key role in LDC implementation. Their expertise also positioned them to function as resources and as a foundation for sustainability.</p>	<p>The POCs who did not have math expertise often worked with other school-based leaders who had content knowledge if they were available to participate in MDC.</p>
<p>Some POCs used their districts' involvement in the MDC initiative to leverage decisions about curriculum.</p>	
POTENTIAL CHALLENGES TO IMPLEMENTATION	
<p>LDC growth and scale up in year two could strain district POC's ability to sustain the rich and multi-faceted support they provided in year one.</p>	<p>In sites with unclear messaging about the purpose of the MDC initiative, teachers displayed a lower level of buy-in and commitment.</p>

Condition 2: Strong School Leaders

Research on school reform has long pointed to the important role of school leaders – both administrators and teachers – in making long-lasting, substantive changes to instruction that will boost student achievement. RFA’s examination of the LDC and MDC initiatives revealed that strong leaders:

- **Effectively communicate the importance of the literacy and math tools.** Communicate to teachers the importance of the initiative and that the underlying principles of the LDC/MDC frameworks will help them improve student learning.
- **Coordinate other efforts in the school to align with and support the use of tools.**
- **Provide a range of resources to teachers.** Include time for professional development (PD) and meetings with colleagues – activities that help teachers develop a deeper understanding of the framework, develop stronger modules, and better use of modules and FALs in classrooms.
- **Provide direct help to teachers.** Provide feedback about modules and FALs, observe module and FAL instruction and offer feedback to enable teachers to make mid-course corrections.

How did strong school leadership relate to early teacher outcomes?

RFA’s correlation analysis of teacher survey data showed that strong school leadership in math sites was significantly and positively associated with teacher beliefs aligned with MDC, strong teacher buy-in, teacher knowledge of tool use, and tool impact on teacher instructional practices. Strong leadership was also significantly and positively associated with three of these four indicators in literacy sites (exception: teacher beliefs). Table 2 summarizes these results.

Table 2. Correlation between strong school leadership and teacher outcomes

Condition: Correlation of Strong Leadership	Teacher beliefs are aligned with LDC/MDC		Teacher buy-in to LDC/MDC		Teacher knowledge about use of LDC/MDC		Tool impact on instructional practices	
	Literacy	Math	Literacy	Math	Literacy	Math	Literacy	Math
	.12	.26*	.22*	.31*	.32*	.30*	.46*	.37*

* p = ≤ .05

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

Our research revealed evidence of strong leadership across both the math and literacy sites, as well as several areas of concern. These findings are summarized in Table 3.

Table 3. Strong school leadership in action

LITERACY	MATH
PROMISING EVIDENCE OF SUCCESS	
Teachers perceived that their school leaders supported LDC and MDC and that school leaders have made formative assessment a priority.	
Principals supported the LDC/MDC initiatives by providing release time for teachers to attend professional development during the school day.	
POTENTIAL CHALLENGES TO IMPLEMENTATION	
While principals' involvement varied, most were significantly less involved in the initiatives than were POCs.	
A significant minority of both literacy (17%) and math (25%) teachers reported that their school leaders had expressed concern that LDC and MDC initiatives took away time from other instructional priorities.	

Condition 3: Meaningful Professional Learning Opportunities

Professional learning opportunities can shape teachers' understanding and use of the LDC and MDC initiatives. We define meaningful professional learning opportunities as:

- **Formal PD sessions for teachers to learn about the LDC and MDC frameworks with their colleagues.** PD sessions provide educators with a common framework and language.
- **Support that responds to teachers' specific needs** (classroom visits, feedback on modules in development). Supports can come from district administrators, content experts, school-based instructional leaders, emerging local experts (teachers who understand the tools and help others incorporate them), and PD partners.
- **Rich and ongoing opportunities to meet and collaborate with colleagues.** Opportunities focus on developing and implementing common modules, sharing about developing and implementing modules, exchanging strategies about using the FALs more effectively, examining student work together, and/or visiting other teachers' classrooms.

Specific to LDC:

- **Multiple types of professional learning (PD, coaching) that work in tandem.** Formal and informal PD sessions, coaching and opportunities to collaborate with colleagues to build teachers knowledge and strengthen their practices; take place before, during and after implementation.

Specific to MDC:

- **Opportunities for teachers to work through FALs collaboratively with the facilitation of a PD provider.** Allows teachers to simulate their students’ future experience with tools and understand the unique and specific structure of the lesson.
- **Logistics and scheduling of PD activities that are aligned with curriculum pacing and district assessment calendar.** The opportunity to use the tools with math content that closely relates to a particular unit of study in the course; PD occurs at a time that does not compete with state assessments and end-of-course exams or marking period.

How did professional learning opportunities relate to early teacher outcomes?

While professional development is positively correlated with positive teacher beliefs, knowledge and practices, the relationship between this condition and these early outcomes is stronger for math than for literacy. As Table 4 shows, our correlation analyses of teacher survey results show the strongest and most consistent relationship between professional development and the use of the tools. In contrast, teacher knowledge of the LDC/MDC tools themselves appears not to have been strongly associated with professional development. The positive, significant correlations between participation in professional development and math teachers’ beliefs and buy-in indicated that math teachers who had more professional development reported higher levels of agreement of belief that tools were aligned to the math curriculum and greater buy-in into using the tools.

- A sub-analysis of components of LDC professional development (not shown) indicated that participation in formal and informal interaction with LDC colleagues had the strongest positive association with the outcome of tool impact on instructional practices. Thus, collaboration with colleagues may hold particular promise for reaching these early outcomes.

Table 4. Correlation between professional learning opportunities and teacher outcomes

Condition:	Teacher beliefs are aligned with LDC/MDC		Teacher buy-in to LDC/MDC		Teacher knowledge about use of LDC/MDC		Tool impact on instructional practices	
	Literacy	Math	Literacy	Math	Literacy	Math	Literacy	Math
Professional Learning Opportunities	.17	.24*	.16	.23*	.18	.08	.28*	.31*

* p = ≤ .05

In addition, a separate LDC correlation analysis indicated that individual support and feedback from district leaders and colleagues for developing and implementing modules was significantly and positively correlated with desired teacher knowledge and practices. See Table 5.

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

Table 5. Correlation between individual supports and LDC teacher outcomes

	Teacher beliefs are aligned with LDC	Teacher buy-in to LDC	Teacher knowledge about use of LDC	Tool impact on instructional practices
Condition: Individual Support	Literacy			
	.05	.09	.23*	.36*
				* p = ≤ .05

The MDC work was in a different stage of implementation than LDC; teachers in most MDC sites had only used FALs in coordination with formal PD sessions. In year two of the pilot, when teachers use FALs that align to their curriculum pacing guides, individual support may emerge as a more important component of the initiative. However, some early evidence of success is emerging from one MDC site in which a district POC provided individual support to teachers that bolstered their use of the tools. Within that same district, some teachers provided support to their colleagues, which also facilitated the effective use of the FALs.

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

Our qualitative work provides a more nuanced picture of the role of professional learning in the first year of implementation, and reveals a number of encouraging signs, as well as several areas of concern, as summarized in Table 6.

Table 6. Professional learning in action

LITERACY	MATH
PROMISING EVIDENCE OF SUCCESS	
<p>Teachers felt satisfied with PD that focused on the LDC initiative, and felt that it helped them use the LDC effectively.</p>	<p>Teachers appreciated and valued collaborating with their peers, both within schools and across districts/networks.</p>
<p>Coaches provided an important support to teachers.</p>	<p>Teachers' participation in PD led to changes in instructional practices.</p>
<p>Collaborating with colleagues was a central feature of the LDC initiative that enhanced tool use.</p>	<p>Teachers valued both years of PD. Teachers benefitted from discussions and strategies centered on addressing student misconceptions, responding to student questions with guiding questions, and using different methods to assess students.</p>
<p>LDC encouraged collaboration across subject areas, grade levels and schools, which is an effective type of PD/support.</p>	<p>Teachers benefited from observing the PD provider use FALS in classes with their students.</p>
POTENTIAL CHALLENGES TO IMPLEMENTATION	
<p>Teachers who implemented modules developed by others had less understanding of some aspects of module implementation and struggled more at times with implementation.</p>	<p>The proximity of many PD sessions to the state assessment was an issue for some schools.</p>
<p>Teachers who did not develop their own modules also participated less in PD.</p>	<p>Using FALS out of context with curricula pacing diluted the instructional benefits for teachers and students.</p>
<p>Lack of peers to collaborate with was a barrier for some teachers in year one.</p>	<p>Ineffective communication of goals of both the MDC initiative and the purpose of PD led to confusion and frustration among some teachers.</p>
<p>Finding enough time to collaborate was a challenge for some teachers.</p>	

Condition 4: Strong Alignment with CCSS, Curricula and Assessment

Research on educational reform indicates the critical role alignment plays in adoption and sustainability. Teachers who perceive alignment between the educational goals of their schools and districts, and the goals of the literacy and math initiatives, may be more willing to fully engage or buy-in to the new initiative. Such buy-in is likely to contribute to deepening, spreading, and sustaining the initiative. We identified three levels of alignment:

- **Alignment with district and state accountability systems.** Teachers’ perceptions of whether tools complement or enhance their ability to achieve the student performance goals set forth by the district and state accountability systems (specifically standardized tests).
- **Alignment with district and school strategies.** Teachers’ perceptions of whether tools align with district/school decisions about how to achieve student learning goals, such as broad curriculum and instructional approaches.
- **Alignment with district and school programs and policies.** Teachers’ perceptions of whether tools align with specific district tools and actual district programs and policies, such as pacing guides.

How did alignment relate to early teacher outcomes?

Alignment is the condition most strongly correlated with teachers’ beliefs, buy in, practices and knowledge. Teachers who reported that the literacy and math tools were aligned in these ways more often reported that their beliefs about teaching literacy or math aligned with the goals of the initiative; that they had high buy-in to the initiative; and that they increased their knowledge and adopted new practices. See Table 7.

Table 7. Correlation between alignment and teacher outcomes

Condition:	Teacher beliefs are aligned with LDC/MDC		Teacher buy-in to LDC/MDC		Teacher knowledge about use of LDC/MDC		Tool impact on instructional practices	
	Literacy	Math	Literacy	Math	Literacy	Math	Literacy	Math
Alignment	.20 (almost sig)	.44*	.44*	.60*	.42*	.37*	.50*	.61*

* p = ≤ .05

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

Despite the association of alignment with positive early outcomes among teachers and the fact that most teachers perceived strong alignment, a significant minority of teachers using both the math and literacy tools expressed concerns about whether the tools were aligned. Table 8 below summarizes our findings about alignment after one year of implementation.

Table 8. Alignment in action

LITERACY	MATH
PROMISING EVIDENCE OF SUCCESS	
Most teachers reported that using LDC/MDC tools would help them implement the CCSS.	
Most teachers perceived the LDC/MDC tools to be aligned with their curriculum.	
Most teachers believed that the LDC/MDC tools also aligned with state assessments.	
POTENTIAL CHALLENGES TO IMPLEMENTATION	
38% of literacy teachers raised concerns that tool implementation would interfere with curriculum coverage.	42% of math teachers raised concerns that tool implementation would interfere with curriculum coverage.
When, as in one site, teachers perceived a lack of alignment between LDC and state assessments, challenges emerged, including the sense that the modules needed to be supplemented to prepare students for the assessments.	

Recommendations

Condition 1: Creating and Sustaining District/Regional/School Network Leadership

- **Develop building-level LDC/MDC experts who can help the district, regional, and school network POCs provide support to teachers.** In the first year of the pilot, most literacy POCs were able to provide generous, and in some cases, intensive support to teachers because the pilot group was small. However, only one math POC was able to provide intensive support to teachers. As more teachers become involved in the second year, POCs will need assistance to support teachers’ development and/or use of the tools.
- **District/regional/school network leaders as well as building leadership need to continue to communicate the purpose of LDC/MDC and its connection to the CCSS and existing curricula and assessments.** It is also important for leaders to monitor and quickly address

teacher concerns about purpose and alignment, so that perceptions of conflict between, for example, preparation for state assessments and use of LDC/MDC do not become barriers to effective implementation.

Condition 2: Strong School Leaders

- **Develop school leaders' understanding of LDC/MDC.** Involve principals, instructional coaches, department heads and others in professional learning opportunities so that they will have enough understanding of the LDC/MDC initiative to champion the initiative, coordinate resources to support it, and provide teachers with feedback about their modules and classroom instructional practices.
- **Principals should dedicate sustained time for teachers** to come together to collaborate, discuss student work, and exchange strategies.
- **Cultivate teacher leaders** who will encourage their colleagues to join the initiative and offer them guidance and support as these teachers new to LDC/MDC work with the frameworks. Scaling an initiative can be challenging, especially garnering enough buy-in so that teachers will actively engage in learning new instructional strategies and adopt new practices. Colleagues can serve as a catalyst for reluctant teachers to try something new.

Condition 3: Professional Learning Opportunities

- **Clearly communicate goals of the initiative and PD to teachers.** In the MDC initiative, where PD is provided by external consultants, it is important for the consultants to communicate the goals of PD sessions to teachers. In LDC, communication of PD goals is the shared responsibility of external PD providers and district leaders who often provide PD for teachers.
- **Provide teachers with a range of professional learning opportunities,** including formal opportunities, meetings of all participants or of teachers by grade and content area, and time to collaborate in pairs or small groups. Time for peer collaboration is especially important so that teachers can discuss student work, share instructional strategies, and find solutions to their challenges.
- **Provide teachers new to LDC/MDC with opportunities and support to develop a deep understanding of the instructional tools.** Both sets of instructional tools require teachers to understand a new instructional approach. For teachers in MDC, it is an understanding of formative assessment and their role as a facilitator, for teachers in LDC, it is the understanding of the framework (formative assessment is embedded, but not explicit). All teachers, new and continuing, should be provided with the opportunity to develop a strong foundation in these instructional frameworks.
- **Professional development should be responsive to teachers' needs.** Teachers need the opportunity to provide feedback about professional development, both how it is meeting their needs, and additional needs and problems they would like professional development to address, so that they can effectively use the tools.

Condition 4: Alignment with District and School-Level Curricula and Assessment

- **Align implementation of the tools with curriculum pacing guides.** To ease the pressure many teachers feel around using the modules/FALs and covering their required content, work with teachers to include the instructional tools in their pacing guides; help them determine the optimal time and ways to use them.
- **PD providers, POCs and building leaders can help teachers address concerns about the role modules or FALs play in preparing students for state and local assessments.** Responding to these concerns may involve tweaking implementation to meet the local context.
- **Continue and deepen efforts to educate practitioners about the CCSS and LDC/ MDC's connection to the standards.** In many districts, teachers are just beginning to learn about the standards. Ongoing emphasis on the CCSS and using LDC/MDC to address them is needed for the initiatives to reach their potential to help teachers rigorously implement the standards.
- **Support exchange with other pilot districts about additional literacy and math related PD and programs that support LDC/MDC.** Many sites have adopted new programs and/or infused current curricula and programs into the LDC/MDC initiatives and teachers reported that these programs have bolstered teachers' use of the tools. Districts began to share these strategies with other pilot sites at the College Ready-Work (CRW) convening in June 2011; however, a more explicit sharing of these programs can help other sites who may be experiencing challenges in a certain area, such as responding to student work or finding curriculum that aligns with the initiative.
- **Share evidence of student learning as a result of LDC/MDC so alignment is clearer.** As evidence of student learning as a result of LDC/MDC becomes available, share this information widely with teachers and administrators so that they can better assess the role of modules/FALs in preparing students for assessments and better evaluate concerns about fitting modules and FALs into their curricula.