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Exploring Coherence in English Language Arts Instructional Systems in the Common Core Era



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Preface

As early as the 1990s, researchers recognized the importance of an instructional system that provides multiple supports and guidance—for example, in the form of curricular materials, professional learning opportunities, and student assessments—to teachers around implementing ambitious learning standards. Multiple studies since then point to the coherence among components of an instructional system as key to changing teachers’ instructional practices in standards-based reforms. No research to date specifically examines the current state of the instructional systems in which a large or representative population of teachers work, in terms of how much various system components are aligned to standards and coherent with each other or to what extent conditions that enable the development of coherence are present. Nor do we know which aspects of school context are related to coherence of instructional systems. Knowing this could inform efforts to ensure the presence of contextual conditions that foster or relate to coherence and efforts to develop policies aimed directly at bolstering coherence.

For the project in which this report is situated, we set out to understand how districts and schools are activating various policy levers (i.e., instructional components)—including curricular materials, professional learning opportunities, and assessments—to drive instructional coherence and student learning in English language arts (ELA) in the Common Core era. This report provides insights based on surveys administered in the first year of the study. The report should be of interest to district leaders and school leaders seeking to understand instructional system coherence and how it could be developed or supported. State education agencies may reflect on the extent of coherence in their school systems and also gain ideas for how to support systems to focus on coherence. Future reports will more closely examine the relationships among system components, explore the relative importance of various components in supporting teachers’ instruction, investigate associations between the extent of system coherence and student achievement, and provide descriptive case studies of schools with varying degrees of system coherence, all with a continued focus on ELA and traditionally underserved students populations.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. This report is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions we present are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

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Summary

Coherence among components of an instructional system is key to changing teachers' instructional practices in standards-based reforms. Coherence involves working across traditional silos—or system components (e.g., curriculum, professional learning, assessment)—to integrate components to avoid fragmentation of experiences for educators and students. The primary focus of coherence in this respect is on the linkage among these key components within the system.

We set out to understand how districts and schools are activating various policy levers (i.e., instructional components) to drive instructional coherence and student learning in English language arts (ELA) in the Common Core era. This report specifically focuses on districts and teachers in three partner states—Louisiana, Massachusetts, and Rhode Island—that have been engaged in recent reforms to encourage more use of standards-aligned instructional materials and professional development for ELA. In each state, we surveyed a sample of teachers who are representative of their state with respect to teacher demographics (e.g., experience, education level, gender) and school demographics (e.g., percentage of students receiving free or reduced-priced lunch, percentage minority, school size). Our end goal is to understand the relationships among the coherence of instructional systems, the quality of ELA classroom instruction, and student learning, with a specific focus on traditionally underserved students.

We focus on ELA because systems supporting ELA instruction have been subject to much less research than mathematics instruction, despite the fact that ELA and mathematics are the two most commonly assessed subjects at the K–12 level.

This report uses survey data from the RAND American Teacher Panel (ATP) to explore the coherence of school-level instructional systems in Louisiana, Massachusetts, and Rhode Island. Specifically, in spring 2019, we asked state-representative samples of teachers in these states to report on the extent to which their curricula, assessments, and other components of their instructional systems cohered with one another and aligned with state standards.

In this report, we share findings about the extent to which the school systems included aligned components and exhibited features of coherence—according to teachers' self-reports. Furthermore, we explore variation in teachers' responses based on the state they teach in, the subject and grades they teach, whether they are serving more and fewer proportions of traditionally underserved students, and whether they reported using materials that are aligned with state standards, using information from EdReports, an independent organization that reviews commonly curricula for alignment with college- and career-ready standards. In addition to surveying teachers through the ATP, we administered a survey to all district leaders in each of the three states.

Key Findings

In terms of standards-aligned curriculum materials:

- Few ELA teachers used standards-aligned curriculum materials in Massachusetts and Rhode Island, while most did in Louisiana.
- In classrooms composed of more than half students of color, teachers were more likely to use standards-aligned materials than those with fewer.
- Teachers generally agreed that their main materials had coherence with other policy documents (e.g., state standards, state assessments).

In terms of curriculum-related resources:

- Teachers generally received multiple supports to implement their curriculum materials, but elementary teachers were more likely to receive these supports than teachers at higher grades.

In terms of curriculum-specific professional learning:

- Districts offered and teachers received a variety of curriculum-related professional learning opportunities, but teachers rarely received curriculum-specific training or training focused on implementing the curriculum for specific student groups.
- On average, teachers were only moderately positive about the effectiveness of their curriculum-specific professional learning.

In terms of teacher evaluation criteria and focus:

- According to teachers, their evaluation criteria focused on aligned instruction, following curriculum guidance, and meeting the needs of low-achieving students and students with disabilities.

In terms of standards- and curriculum-aligned assessments:

- Teachers generally believed that their interim assessment systems were aligned with their ELA standards, summative assessments, and curriculum materials.

In terms of conditions enabling coherence among instructional system components:

- Teachers indicated moderate presence of hypothesized conditions that enable coherence, particularly having clear student-learning goals and using assessment results to benchmark progress.

In terms of teachers' access to an instructional system that demonstrates coherence:

- Teachers differed tremendously by states in their ELA instructional systems, with teachers in Louisiana reporting teaching in systems that show evidence of far greater coherence.
- We observed greater evidence of incoherent instructional systems for teachers serving more students with disabilities and for elementary teachers.

Introduction

As early as the 1990s, Smith and O’Day (1991) recognized the importance of an instructional system that provides multiple supports and guidance—for example, in the form of curricular materials, professional learning opportunities, and student assessments—to teachers around implementing ambitious learning standards. Additionally, studies point to the coherence among components of an instructional system as key to changing teachers’ instructional practices in standards-based reforms (Coburn, Hill, and Spillane, 2016; Desimone, 2002; Honig and Hatch, 2004).

Coherence has been used in a number of ways throughout research and literature. In our present project examining coherent instructional systems with respect to English language arts (ELA), we use *coherence* to mean *the extent to which key system components related to teaching and learning are consistent with each other (or reinforce each other) and all provide the same signals and supports to teachers and leaders about what instruction should look like*. Coherence involves working across traditional silos—or system components (e.g., curriculum, professional learning, assessment)—to integrate components to avoid fragmentation of experiences for educators and students. The primary focus of coherence in this respect is on the linkage among these key components within the system. It is important to note that, because it is nearly unavoidable, we use *coherence* as a noun; however, it is not to be thought of as an end state. Rather, coherence is a continuous process (Fullan and Quinn, 2016; Honig and Hatch, 2004); as one instructional component is (re)shaped or (re)focused, other components should shift with it.

As an example, a coherent instructional system would include the same or similar instructional guidance within a curriculum and professional learning opportunities, and student assessments would cohere with the content of a curriculum and professional development. Yet, for the most part, education policy research has noted incoherence, or lack of connection among multiple policy initiatives and goals, as a major issue for schools struggling to implement or sustain instructional improvement efforts (e.g., Fuhrman, 1993; Hatch, 2001; Honig and Hatch, 2004; Newmann et al., 2001; Smith and O’Day, 1990). Some attribute the problem of incoherence to the increasing and multiple demands being made on schools, resulting in fragmented policies or requirements that together do not support a clear core objective (e.g., Fuhrman, 1993; Hatch, 2001; Newmann et al., 2001). However, none of this research specifically examines the current state of the instructional systems in which a large or representative population of teachers work, in terms of how much various system components are aligned to standards and coherent with each other or to what extent conditions that enable the development of coherence are present. Nor do we know which aspects of school context are related to coherence of instructional systems. Knowing this could inform efforts to ensure the presence

of contextual conditions that foster or relate to coherence and efforts to develop policies aimed directly at bolstering coherence.

For the project in which this report is situated, we set out to understand how districts and schools are activating various policy levers (i.e., instructional components)—including curricular materials, professional learning opportunities, and assessments—to drive instructional coherence and student learning in ELA in the Common Core era. We specifically focus on districts and teachers in three partner states—Louisiana, Massachusetts, and Rhode Island—that have been engaged in recent reforms to encourage more use of standards-aligned instructional materials and professional development for ELA. In each state, we surveyed a sample of teachers who are representative of their state with respect to teacher demographics (e.g., experience, education level, gender) and school demographics (e.g., percentage of students receiving free or reduced-priced lunch, percentage minority, school size). Our end goal is to understand the relationships among the coherence of instructional systems, the quality of ELA classroom instruction, and student learning, with a specific focus on traditionally underserved students.

This report is the first in a series exploring coherence in systems supporting ELA instruction. In this report, we focus on describing the extent of coherence of ELA instructional systems within our three partner states, drawing on survey data from district administrators and teachers. In future reports, we will connect coherence to teaching and learning by exploring the relationships among these constructs. That said, this report provides the first picture of the presence of coherent instructional systems across a large number of districts, schools, and teachers.

We focus on ELA for a few reasons. Systems supporting ELA instruction have been subject to much less research than mathematics instruction, despite the fact that ELA and mathematics are the two most commonly assessed subjects at the K–12 level. A particularly large body research has focused on the alignment of mathematics instruction with standards and curriculum. For example, since the National Council of Teachers of Mathematics released curriculum and standards recommendations for mathematics instruction in 1989, numerous studies have investigated the extent to which teachers have taken up these standards in their instruction (e.g., Cohen and Ball, 1990; Ross et al., 2003; Weiss, 1997), as well as the implementation of curricula developed to align with the National Council of Teachers of Mathematics standards (Agodini et al., 2009; Huntley et al., 2000; Riordan and Noyce, 2001). In contrast, little attention has been paid to how well ELA instruction has aligned with existing state standards. Furthermore, we hypothesize that ELA presents unique challenges for instructional coherence that are worth examining. For example, prior RAND Corporation research suggests the following:

- ELA teachers report quality of materials and student needs as the main factors driving their selection of instructional materials, whereas mathematics teachers were much more likely to cite standards and assessments as factors driving material selection (Opfer, Kaufman, and Thompson, 2016).
- Teachers are more likely to indicate using teacher-created materials for their ELA instruction compared with their math instruction (Kaufman et al., 2020).

This report uses survey data from the RAND American Teacher Panel (ATP) to explore coherence of school-level instructional systems in Louisiana, Massachusetts, and Rhode Island. Specifically, in spring 2019, we asked state-representative samples of teachers to report on the

extent to which their curricula, assessments, and other components of their instructional systems cohered with one another and aligned with state standards. We also asked them to report on the extent to which those components were coherent with each other.

In this report, we share findings about the extent to which the school systems included aligned components and exhibit features of coherence—according to teachers’ self-reports. Furthermore, we explore variation in teachers’ responses based on the state they teach in, the subject and grades they teach, whether they are serving more or fewer proportions of traditionally underserved students, and whether they reported using materials that are aligned with state standards, using information from EdReports, an independent organization that reviews common curricula for alignment with college- and career-ready (CCR) standards. In addition to surveying teachers through the ATP, we administered a survey to all district leaders in each of the three states.

A Standards-Aligned Coherent Instructional System

Instructional System Coherence: Why It Matters

In brief, an instructional system is composed of components that send signals to teachers about what and how to teach. The key components consist of academic standards, curriculum and support materials, professional learning opportunities, teacher evaluation criteria, and student assessments. In the era of standards-based reform, standards present perhaps the clearest message about what to teach and what students are to master. When other components, such as curriculum and professional development, reinforce the standards, we consider them to be *aligned* to the standards. When components support each other, or provide similar instructional guidance, we consider them to be *coherent* with each other.

Although standards are critical for anchoring instructional reforms, there is widespread recognition that they cannot in themselves lead to desired changes in teaching and learning. Other aspects of school instructional systems must align with standards and cohere with each other for teachers to get clear messages on what to teach and how to teach it (Coburn, Hill, and Spillane, 2016; Desimone, 2002; Honig and Hatch, 2004). In particular, many states have prioritized the adoption and use of standards-aligned curricula.¹ Beyond this, other components of instructional systems have received renewed attention in supporting high-quality instruction. For instance, professional learning and coaching remain components of many states' and districts' strategies for increasing teacher knowledge of the standards and improving standards implementation (Coggshall, 2012; Rentner and Kober, 2014a; Woulfin and Rigby, 2017). Moreover, some states and some districts have developed or revised their teacher evaluation systems in an effort to ensure that those systems work in support of standards implementation (Kraft and Gilmour, 2017; McGuinn, 2012). And benchmark or interim assessment systems are common in districts and schools that seek to measure student progress toward mastery of CCR standards (Davidson and Frohbieter, 2011; Rentner and Kober, 2014b). Despite many

¹ See, for example, efforts by a group of states to increase the numbers of districts selecting high-quality, standards-aligned materials, as well as preservice and in-service efforts grounded in use of those materials (Council of Chief State School Officers, 2020, p. 14). Several of these states are consulting EdReports' reviews of curricula as they make purchase or adoption decisions. Others have developed or are using tools to support school administrators, teachers, and other stakeholders to assess the alignment of their materials against new standards. Achieve's EQuIP (Educators Evaluating the Quality of Instructional Products) (Achieve, undated) and Student Achievement Partners' Instructional Materials Evaluation Tool (IMET) are two such resources.

states' recent focus on developing these components of a healthy instructional system, there has been relatively little focus on coherence among these components within school districts.

The incoherence between these instructional components affects all stakeholders involved in teaching and learning within schools. School principals in any school are active interpreters of district messages about policy shifts and what they mean for teachers' instruction (Coburn, 2001; Coburn, 2005; Spillane et al., 2002). Their communications—combined with those from states and districts, as well as what districts and schools provide in terms of curriculum, professional learning, and assessment—can send multiple and conflicting messages about what to teach and how to teach it (Fuhrman, 1993; O'Day and Smith, 1993). More research is necessary to understand how coherent instructional systems may affect teaching and students' performance, which are both goals of this study but not possible to examine with the data we share in this report. However, we surmise that coherent instructional systems are particularly important for higher-risk students (e.g., low-income students, students of color [SoCs], English learners [ELs], students with disabilities [SWDs], and students performing below grade level), whom teachers traditionally struggle to support and are more likely than other students to attend schools with fewer resources and supports (Darling-Hammond, 2000; Lee and Wong, 2004) or to experience policies that may fall short of fully addressing equity and inclusion.

Our Conceptualization of a Standards-Aligned Coherent Instructional System

Below, we identify and describe key components of our conceptualization of an instructional system; mutual reinforcement among these key components results in system coherence. The system is anchored by the K–12 ELA academic content standards, which in most states closely align with the Common Core State Standards (Korn, Gamboa, and Polikoff, 2016). In Figure 2.1, which depicts our working conceptualization of coherence in ELA instructional systems, standards are at the top, representing the goal to which all components are intended to align. We argue that if each component aligns with the standards, or to a component that is standards aligned (e.g., curriculum), then components are likely coherent with each other, and, hence, the instructional system is an aligned and coherent one.

Our conceptualization of instructional system coherence is informed by Smith and O'Day (1991) and elaborates on prior research about system coherence and the link to instructional quality and student achievement (e.g., Kaufman, Thompson, and Opfer, 2016; Kaufman et al., 2020; Leo and Cogshall, 2013; Porter, 2002). It is beyond the scope of this report to present a comprehensive discussion of coherence; for reviews and discussions, see, for example, works by Honig and Hatch (2004), Fullan and Quinn (2016), and Fuhrman (1993). We acknowledge that our conceptualization and figure may be a simplification of the complex constructs and systems involved. For example, even if an aligned, coherent instructional system were in place (i.e., all components send the same messages to teachers and drive toward standards-aligned instruction), achievement gains for students might not follow; much depends on teacher sensemaking and implementation (e.g., Allen and Penuel, 2015; Coburn, 2001). In this scenario, however, school and district leaders can work with teachers to course correct or monitor implementation to meet the clearly messaged goals. Absent a coherent system, we expect that teachers will experience greater conflict or difficulty in enacting standards-aligned instruction. The findings in this report, therefore, address the extent to which teachers work in instructional

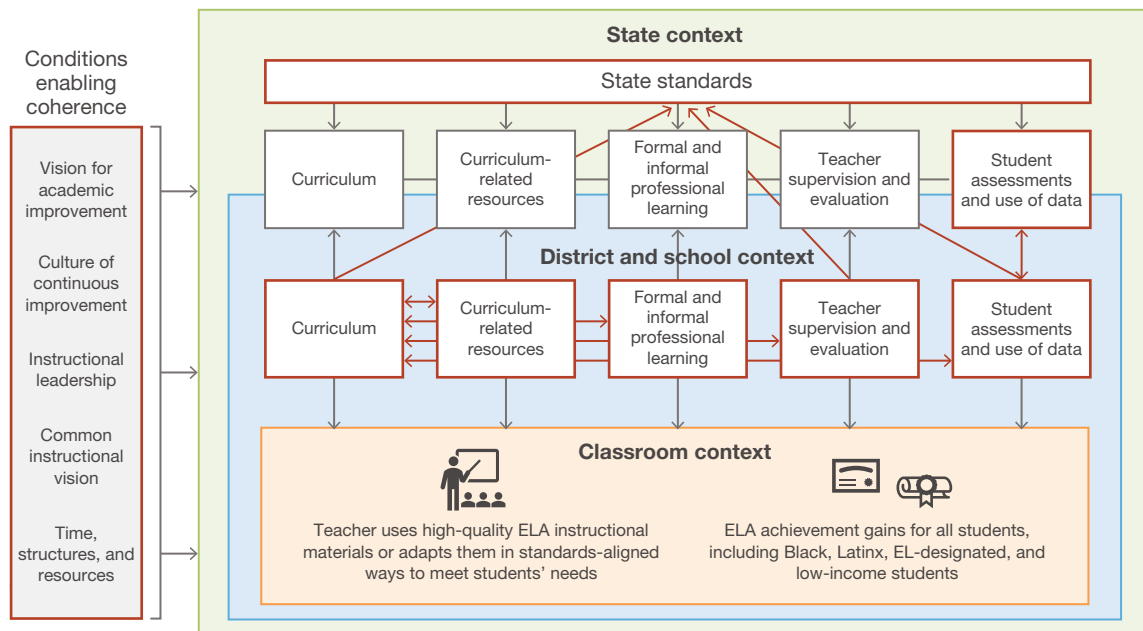
systems that are aligned with standards and are internally coherent, which we conceive as a critical component to the delivery of standards-aligned instruction.

This report does not address every component or relationship depicted in Figure 2.1; see the red outlines and arrows for the components and relationships that are addressed. In this report, we specifically investigate aspects of coherent instructional systems that are present in school systems in our three partner states, according to teacher and district administrator survey self-reports. Notably, we focus exclusively on system-level components and conditions but do not address instruction, including teachers’ use of curriculum or application of professional learning content. In a future report, we aim to provide some insights into these aspects.

Levels of Instructional Systems

The level of the system that is of primary interest for this report is the school level, given the constraints of only having teacher and school leader survey data. We acknowledge, however, that there are multiple system levels at play—state, districts, and schools. Components of instructional systems are present at each of the levels and should work in concert to send clear, consistent, unified signals and supports related to standards-aligned instruction. Some states, for example, recommend the use of certain high-quality curricula. To the extent that state departments of education provide or recommend curriculum-related resources, these should ideally cohere with the curricula they recommend. Similarly, to the extent that states offer guidance with respect to professional learning—for teachers, teacher leaders, instructional

Figure 2.1
Hypothesized Components of a Standards-Aligned Coherent Instructional System and Theory of Action Leading to Student Learning



NOTE: Red outlines indicate the components, and red arrows indicate the relationships investigated in this report. The arrows pointing up to “state standards” indicate that we examined the alignment of that component to the standards. The arrows between and to and from “curriculum” indicate that we examined the coherence between that component and curriculum.

coaches, or leaders—it would be beneficial that these are consistent with the focus of the curricular approach. Given that teacher evaluation and students’ year-end assessments are under the purview of states, states can play an important role in helping to ensure that these components are standards aligned and promote effective instruction.

The idea of coherence among components of the instructional system repeats for the district level and at the school level, and this is conveyed in Figure 2.1 by vertical arrows. The same set of instructional system components are at work at each level, although which ones have prominence may differ. States may bear more responsibility for teacher evaluation criteria and summative assessments; meanwhile, districts may be in a position to ensure alignment of formal professional learning, instructional coaching, benchmark or interim assessments, and the use of data systems to standards (and coherence among these components). Finally, schools may be positioned to purchase curriculum-support resources and account for peer-collaboration time, so considering coherence in decisions related to these instructional components is critical. Not only should there be coherence *within* each of the levels of the system but there should be coherence *among* levels for each of the instructional components.

Key Components of a Standards-Aligned Coherent Instructional System

Since the 1990s, research and literature have regularly proposed or positioned the following as key components of an instructional system that should align with (i.e., support) the standards and cohere with each other. We represent each component in Figure 2.1 by white boxes at each level.

Standards-aligned curricula: The curriculum anchors teachers’ day-to-day instruction and has long been considered fundamental to the era of standards-based reform. Smith and O’Day (1991) saw standards-aligned materials as essential to providing consistent messages about how to implement new standards. Over time, scholars have suggested more research on the role of curriculum in improving student outcomes (e.g., Chingos and Whitehurst, 2012). More-recent empirical studies have suggested that using particular textbooks is associated with higher achievement gains, at least in mathematics (Agodini and Harris, 2010; Bhatt and Koedel, 2012; Koedel et al., 2017; Steiner, 2017). Furthermore, such states as Louisiana have been particularly focused on standards-aligned curricula as a key driver of student learning and achievement (Kaufman, Steiner, and Baird, 2019). Following the example of Louisiana and other states, the Council of Chief State School Officers (2020) has formed a network of states focused on reforms to encourage the adoption and use of standards-aligned curricula.

Curricula are instructional materials—in print or digital format—intended to constitute a full, comprehensive course of study for a particular subject and grade level. As mentioned above, through reviews—for example, by EdReports—curricula can be rated as standards aligned (fully, partially) or not. Standards-aligned curricula meet the expectations of CCR standards; these curricula instantiate the standards in the objectives, lessons plans, activities, and assessments they present. Moreover, cultural relevance, inclusivity, and representations of race and ethnicities, cultures, beliefs, and abilities matter in curricula. Curriculum materials that reflect the background, experiences, and interests of students, particularly for traditionally underserved or vulnerable populations, can support engagement and learning (Aronson and Laughter, 2016; Howard, 2001).

Curriculum-related resources: These include lesson plans, pacing guides, learning assessments, online student learning software that may accompany the curriculum, suggestions for how to anticipate or interpret student thinking in response to instructional activities, and suggested remediation activities or interventions for struggling students, based on results of assessments or other information. Teachers may be provided with high-quality curriculum materials to use, but if they do not have access to these resources that support them to implement the materials (i.e., use or adapt them) in standards-aligned ways, then they are likely unable to provide students with the learning opportunities needed to master the content and standards. Or teachers may be provided resources that do not cohere with the high-quality standards-aligned core curriculum—for example, online learning software that emphasizes different skills or teaches skills in a different order or to a different depth than the core curriculum. In these cases, teachers may be confused as to which approach the district (or state) values. They may seek to compromise between the two and, in the end, risk confusing students with incoherent instruction. Curriculum supports may be particularly helpful for addressing the needs of struggling students or special populations by providing ideas for differentiation or scaffolding.

Curriculum-specific professional learning opportunities: Recent empirical findings suggest that teachers who experienced professional learning opportunities coherent with reform and standards were more likely to change their practices than teachers who did not engage in such activities (see Lindvall and Ryve, 2019; Garet et al., 2001) and that student achievement is associated with the level of schools' instructional program coherence. In addition, some evidence indicates that teachers improve their instruction when they receive professional learning opportunities that are ongoing and closely connected to their curriculum and instruction (Correnti, 2007; Correnti and Rowan, 2007; Newmann et al., 2001; Supovitz and Turner, 2000), as well as those that are aligned with what school districts value (Garet et al., 2001; Penuel et al., 2007).

Coherent professional learning may be delivered as curriculum-specific formal professional development sessions, provided by textbook developers or districts. For example, a district may provide specific sessions for ELA teachers to learn about how to teach close reading, an approach emphasized in the core curriculum that a district has adopted. Common planning or peer-collaboration time, which facilitate teachers' sensemaking, can also support their implementation of curriculum or reforms (Allen and Penuel, 2015). District or school guidance or directives around how to use this time or what to focus on during this time can reinforce or splinter teachers' attention and understanding of what and how to teach in standards-aligned ways. One can imagine teachers being encouraged to use the time to practice instructional strategies they learned in a recent formal professional learning session. In contrast, another district could provide no guidance on how to use the collaboration time or may send teachers in another direction—for example, requiring teachers to create worksheets when the curriculum and other instructional components focus on the concept of "writing to learn." Finally, coaching is another opportunity for sending a message about what and how to teach (Desimone and Pak, 2017; Woulfin and Rigby, 2017). The message is conveyed both through the focus or substance of the coaching and the tool used (e.g., pre- or post-observation tool). If the curriculum emphasizes close reading, and formal professional learning sessions are coherent with that, it makes sense for the coaching to be coherent with those as well. Importantly, professional development that promotes differentiation or otherwise attends to supporting tradition-

ally underserved students to access the curriculum and master standards is key to closing gaps and elevating student achievement.

Standards- and curriculum-aligned instructional supervision or evaluation criteria: Researchers have suggested that, to support coherence, teachers be evaluated and held accountable in part on how effectively they use their curriculum framework (Leo and Coggshall, 2013; Newmann et al., 2001). Following this, informal walkthroughs or formal evaluations of teachers can likely be beneficial for improving instruction if school leaders' focus and criteria are transparent and aligned with the standards (and corresponding high-quality curriculum) and, furthermore, if teachers receive actionable feedback from these evaluations to improve their use of curriculum. In addition, leaders should be coherent with messaging about what effective, desirable practices are—as conveyed through professional learning opportunities and guidance around the use of collaboration time, for instance. Therefore, supervision and evaluation could be an opportunity to emphasize practices that promote equitable opportunities to learn for students of all backgrounds and abilities. If the message sent by supervision and evaluation criteria is incoherent, teachers may hone a set of practices for their evaluators that are not the high-leverage practices that help students achieve the standards. For example, if teachers believe that leaders are looking for quiet, orderly classrooms and correct answers, they might not apply practices that encourage students to take risks and that surface misconceptions and lead to deeper learning.

Standards- and curriculum-aligned assessments: Assessments, whether large-scale, summative, and district-wide benchmarks or created by teachers for classroom use, should be aligned with the standards and the curriculum students are taught—and with each other (La Marca et al., 2000; Martone and Sireci, 2009; Shepard, Penuel, and Davidson, 2016). If not, teachers may be conflicted as to what to emphasize. They may teach to the test, and this might mean teaching the curriculum out of sequence or teaching skills in a cursory way if the test is less demanding than the curriculum. So, it is important that assessments are sending the right messages about what to focus on (Martone and Sireci, 2009)—and that the messages are reinforced by other key instructional components, such as professional learning opportunities.

In sum, in an ideal coherent instructional system, each of these components aligns with the standards and corresponding curriculum. Moreover, the components cohere with (connect with, reinforce, send the same messages as) each other to support teachers to teach in ways that support students to master the standards. When the components send the same messages, they provide teachers clarity around what to focus on, instead of dividing their efforts in trying to serve multiple masters, to accomplish different goals, and to fulfill different criteria. And all this, in turn, ideally leads to improved student learning outcomes.

Conditions That Enable Coherence

Drawing on literature (e.g., Fullan and Quinn, 2016; Honig and Hatch, 2004; Newmann et al., 2001; Robinson, Lloyd, and Rowe, 2008; Srinivasan and Archer, 2018), we have identified in Figure 2.1 some contextual conditions that support or drive the development of coherence among the instructional system components described above. In other words, we hypothesize that these conditions support alignment of curriculum, curriculum supports, professional learning, instructional supervision and evaluation criteria, and assessments both to the standards and to each other. The conditions do so by providing a guiding vision for what to teach

and how and fostering a culture in which teaching and learning are at the core of decisions. Below, we briefly describe the five conditions that we hypothesize support the coherence process, noting that there may well be many others. We acknowledge that some of these conditions may in fact also be the result of the presence of coherent systems.

Vision for academic improvement: Leaders and organizations should set clear goals for student learning and continuously engage with those goals to gauge attainment and to drive strategy and support coherence building (Honig and Hatch, 2004; Srinivasan and Archer, 2018). If there is not a clear shared purpose—an anchor or vision for how to improve students’ learning and academic achievement, for all students, especially those at risk or traditionally underserved—then all other efforts will likely be aimless and point in different directions. Fullan and Quinn (2016) refer to this as a *focusing direction*, which builds collective purpose.

Leaders can help teachers recognize coherence among components by messaging how the various components reinforce each other and by making connections for teachers. For example, when previewing how teachers will be observed and evaluated, leaders can emphasize that the criteria reflect the recent emphasis on formative assessment practices, which has been the main common school-wide strategy and the focus of professional learning sessions and coaching all year. Helping teachers see how the parts of the system work together makes visible the vision that the leader has. And this, in turn, can help teachers buy in and work together toward that vision, rather than splinter their focus and efforts.

Culture of continuous improvement: As mentioned above, coherence is a process. Organizations that subscribe to a culture or orientation of continuous improvement are likely to examine deeply the status quo of their instruction components and teaching practices and question the extent to which they are effective and coordinated (i.e., coherently working together or, rather, against each other). Fullan and Quinn (2016) consider this part of securing internal accountability. Implicit in this orientation is a culture of trust and collaboration. Leaders and teachers have to understand that critiquing the system in the name of improvement is a way to support everyone’s end goal of effecting student achievement and not an attack on any individual or department. To encourage the type of ongoing collaboration that supports coherence building, organizations must create the time and space for people to work together and set up structures, processes, and expectations for consistently building everyone’s expertise toward achieving their collective purpose (Fullan and Quinn, 2016).

Instructional leadership: Having leaders in the building or organization who support organizational goals and orient others toward teaching in effective ways can help create the climate for coherence (Fullan and Quinn, 2016). Identifying and positioning certain teachers as instructional leaders can help other teachers understand and embrace espoused ways to approach curriculum, professional learning, assessments, and the like. But leadership needs to be cultivated and supported across an organization. Principals who model learning and expectations provide critical instructional leadership and helps bridge policy and practice and effect student achievement (Robinson, Lloyd, and Rowe, 2008).

Common instructional vision: Fullan and Quinn (2016) suggest that “members of coherent system continually cultivate a common language and knowledge base that facilitates identification of proven practices and capacity building around those practices.” We therefore hypothesize that it is easier to achieve coherence among instructional components in buildings where teachers share a common instructional vision—including use of a common set of core teaching practices or strategies, ideally standards aligned and that address the particular needs of special populations. Often, schools or districts will adopt common strategies that all

teachers of a particular grade or subject matter should use regularly. Teachers can lean on these strategies or practices to implement curricula, and the strategies can be a focus for professional learning or walkthroughs and observations. This common instructional vision, then, can help unify—or cohere—multiple instructional components.

Consideration of time, structures, and resources: Newmann and coauthors (2001) recommend that schools allocate resources, including time, to support the schools' curricular and instructional frameworks. School structures can seem intractable, nonnegotiable; they can also be great barriers to achieving coherence, barriers that should perhaps be reexamined and creatively circumvented. For example, if a high-quality standards-aligned curriculum calls for 60 minutes of ELA instruction per day but a district allots only four 40-minute periods per week, there is a clear disconnect, and teachers are put at a disadvantage for delivering the instruction and opportunities to learn that students likely need. Structures and schedules can also support or hinder collaboration among teachers. For example, if teachers do not have common planning time, there is likely to be little collaboration and shared strategies among teachers in a building. To encourage the type of intentional work that supports coherence, organizations must create the time and space and structures and processes for people to work effectively.

Another resource that districts and school can allocate to support coherence and drive student achievement is staff (Newmann et al., 2001). School leaders can strategically assign teachers based on their strengths and needs. For example, leaders can assign a newer teacher to work with an effective veteran teacher. Or leaders can strategically keep teachers at a certain grade level or as a unit for several years to help develop their practice. Newmann and colleagues (2001) suggest that stability in teachers' professional assignment allows teachers to have sustained opportunities to learn to teach well in their roles. Stability in teaching teams can also strengthen trust and collegiality among teacher, foster more-fruitful collaboration, and increase accountability (to each other and to their students). This, in turn, could help tighten the coherence among components—for example, among use of common instructional strategies and assessments, if teachers' conversations and collaborations address these issues. Strategic staffing should also involve consideration of students—for example, ensuring minority representation among staff or that teachers reflect the race and ethnicity, background, and experiences of students to support learning opportunities and achievement (Dee, 2004; Dee, 2005).

Study Approach and Background

State Context for the Present Study

As Figure 2.1 showed and as we mentioned earlier, the state is the larger context in which districts and schools are nested; therefore, state policies and guidance around ELA teaching and learning are expected to shape how districts and schools formulate their instructional systems. For this part of our larger study of the coherence of instructional systems, we partnered with three states: Louisiana, Massachusetts, and Rhode Island. We chose these states for a few reasons. First, these states have been engaging in reforms to encourage more uptake of standards-aligned curriculum for ELA and mathematics, as well as efforts to support use of standards-aligned curricula. Louisiana's curriculum reform efforts have been connected with considerably higher uptake of standards-aligned materials for both mathematics and ELA than the rest of the nation, along with evidence that Louisiana teachers are participating in more curriculum-focused and standards-aligned professional development opportunities in the rest of the United States. Louisiana's efforts have been a model for other states that have been participating in the High Quality Instructional Materials and Professional Development Network through the Council of Chief State School Officers since 2017. Rhode Island and Massachusetts are both part of that network. Second, Louisiana, Massachusetts, and Rhode Island all have districts with high percentages of minority and low-income populations. Louisiana is second in the nation in the percentage of Black students (44 percent), Rhode Island is 11th in the nation in the percentage of Latinx students (25 percent), and Massachusetts is at the national average in the percentage of ELs (10 percent).¹ Lastly, all three states were willing to work closely with us by providing input on our survey measures, ensuring that we were measuring aspects of instructional systems that were relevant to them, and helping us recruit school districts for our upcoming case study work.

Our discussion in this chapter and Table 3.1, summarizing the state context, draw on publicly available information, as well as interviews we conducted with leaders in each state in summer 2019. In total, across the three states, we interviewed 11 state officials. As noted in the table, all three states reported working toward increasing the use of high-quality, standards-aligned curricula and have strong accountability systems (e.g., state standardized tests), but the states vary in their approaches and the extent to which they leverage different components of their systems to support ELA teaching and learning. In all three states, districts have autonomy over the curricula that they adopt. However, all three states use some form of a curriculum review process to provide greater transparency around the quality of curricula. Besides

¹ All data are from the most recent *Digest of Education Statistics*; see National Center for Education Statistics, 2020.

Table 3.1
Highlights of State Context with Respect to Key Components of ELA Instructional System

	Louisiana	Rhode Island	Massachusetts
Strategies to promote the use of standards-aligned curricula	<ul style="list-style-type: none"> • Instructional Materials Review process to rate the quality of curricula • The ELA Guidebook Units, the state's own standards-aligned curriculum • Requirement that districts adopt Tier 1 materials to receive competitive funding • State contracts to reduce burden and price of purchasing Tier 1 curricula 	<ul style="list-style-type: none"> • Legislation requiring districts to adopt high-quality instructional materials by no later than 2023 • Partnership with EdReports to support a cohort of volunteer districts through curriculum selection 	<ul style="list-style-type: none"> • CURATE (Curriculum Ratings by Teachers), a curriculum review process to rate the quality of curricula • Streamlined procurement process for high-quality curricula to reduce administrative burden • Curriculum audit services and text inventory tool to help schools and districts assess curricula and texts
State-provided professional learning and guidance around professional learning	<ul style="list-style-type: none"> • Teacher Leader Summit, an annual three-day institute providing training on Tier 1 curricula • Training for content leaders and mentor teachers, who can deliver curriculum-specific professional learning and support teachers locally • State-created list of professional learning vendors that support Tier 1 curricula and have been deemed high quality; districts can use this to select vendors 	<ul style="list-style-type: none"> • Honors Colloquium, where national experts talk to districts about high-quality instructional materials • For districts involved in the EdReports curriculum adoption initiative, state support in the curriculum implementation process • Rhode Island's Educator Course Network provides districts with a list of professional development vendors that meet certain criteria 	<ul style="list-style-type: none"> • Annual convening of literacy leaders to provide professional development and facilitate conversations around current initiatives • Convening of instructional support networks for school and district teams to work on problems of practice, which at times includes curriculum selection and implementation or curriculum-specific professional development
Use of summative and formative assessments	<ul style="list-style-type: none"> • Louisiana Educational Assessment Program (LEAP) 2025 • State's formative assessment system, LEAP360, provides optional diagnostic and formative assessments aligned to state standards and summative assessment • State evaluations and ratings of benchmark assessments 	<ul style="list-style-type: none"> • Rhode Island Comprehensive Assessment System (RICAS) • State requirement for districts to have a comprehensive assessment system that includes use of interim and formative assessments, but state does not oversee or monitor implementation 	<ul style="list-style-type: none"> • Massachusetts Comprehensive Assessment System (MCAS) • No state formative assessment system or state guidance around the use of formative assessments

encouraging this transparency, Louisiana has uniquely created and supported the implementation of its own high-quality curriculum, the ELA Guidebook Units, which has been adopted widely throughout the state. In comparison, state officials in Massachusetts and Rhode Island reported greater amounts of curriculum variation across the state. Although Rhode Island has passed legislation mandating that districts select high-quality curricula approved by the state, this mandate does not take effect until 2023. Massachusetts and Louisiana have thus far chosen a different route, preserving districts' autonomy but relying on statewide mechanisms to increase knowledge around curriculum quality and to make the adoption of high-quality curriculum easier or more attractive.

State officials in Rhode Island and Massachusetts reported that the provision of professional learning around the use of instructional materials generally occurs more at the local level or through grants or initiatives. In contrast, Louisiana has established several layers of state-provided professional learning, including a statewide summit providing professional learning around high-quality curricula and the development of local leaders who are able to return to their own schools and districts to provide support around Tier 1 curriculum implementation (Tier 1 curricula are those the state has rated as meeting all nonnegotiable criteria and scoring the best possible on all indicators of superior quality). Rhode Island and Louisiana have also issued lists of vendors meeting certain quality criteria to guide districts' selection of professional learning vendors.

All three states have a summative assessment based on the state's standards. However, of the three states, Louisiana is the only one to have also created a formative assessment system aligned to the state standards, the summative assessment, and, to some extent, the ELA Guidebook Units.

Regarding supports for EL, Black, Latinx, and low-income students, all three states worked to integrate support for ELs into their curriculum review processes, as in Rhode Island and Massachusetts, or the curriculum itself, as in Louisiana. All states also placed an emphasis on culturally relevant teaching or diverse texts in some way. However, no state had particular strategies targeted toward supporting low-income students. Instead, state officials took the position that their initiatives supporting struggling students, as well as their core initiatives for students across the state, would likely benefit these vulnerable student populations as much as—or even more than—mainstream students.

Research Questions

In this report, the first in a series that will focus on coherent instructional systems, we begin our exploration by assessing the extent to which a few of the key components of school instructional systems—curriculum and related supports, formal and collaborative professional learning opportunities, and student assessments—align with the state ELA standards and cohere with each other. Specifically, we address the following questions in this report:

- To what extent are ELA teachers provided with, and to what extent do they use, standards-aligned curriculum materials?
- To what extent do teachers receive curriculum-related instructional resources that can support their use of curriculum?
- What curriculum-specific professional learning do teachers receive?
- To what extent do teachers' evaluations include criteria related to the alignment of their instruction to standards and the degree to which they meet the needs of diverse students?
- To what extent do students take standards- or curriculum-aligned interim assessments?
- To what extent do teachers and district leaders report the presence of conditions that might enable coherence within schools?
- How many teachers have access to an ELA instructional system that demonstrates coherence along these dimensions?

For all questions, we also consider the extent to which the answers differ according to our groups of interest (low-income students, SoCs, ELs, SWDs, and students performing below grade level), across states, and for teachers who do and do not have access to standards-aligned materials.

Methods

Survey Samples

In the spring of 2019, RAND administered the survey for this project to state-representative samples of K–12 public school teachers in three states—Louisiana, Massachusetts, and Rhode Island—as part of the ATP. The ATP includes K–12 public school teachers who were randomly chosen from a near comprehensive list of teachers to participate in periodic surveys on education issues of national import. The ATP includes nationally representative samples of teachers and state-representative samples in 25 states. The ATP is composed of more than 24,000 teachers, which allows for data collection from large teacher subsamples and for analysis of teachers’ responses according to key subgroups, such as teachers in higher- and lower-poverty schools or teachers of different grade levels. This study was designed to collect state-representative responses from ELA teachers in each of the three states. All data presented in this report are weighted to provide representative estimates. Weights were constructed using a calibration method and included a model for nonresponse. Each survey respondent was given a weight to ensure that estimates reflected each state’s population of ELA teachers. The weights are calculated by first modeling response probabilities of teachers across a wide variety of teacher characteristics. The main weight is then calibrated so that the weighted sample matches the known teacher population across these characteristics in each state.

In addition, we fielded a district survey to a district leader in each school district and charter school system within each of the three partner states. Each of the partner states provided contact information for either the superintendent or an administrator known to lead ELA instruction in all districts. An important difference between the district survey and the ATP survey was that district leaders were asked to focus only on ELA in secondary grades (grades 6–12) for all items, whereas the ATP included teachers in grades K–12. We did this because our project was originally conceptualized to focus on instructional coherence in ELA at the middle and high school levels, with the rationale that elementary ELA has been the focus of more research. However, we expanded the ATP to include teachers of all grades to allow for comparisons between elementary, middle, and high school teacher reports.

Table 3.2 summarizes the completion rates for the ATP and district leader survey. Completion rates for the district leader survey were particularly low in Louisiana and Massachusetts. Although the ATP survey completion rates are somewhat low, they are in line or higher than responses for other large-scale surveys.² We therefore focus primarily on the teacher data (from the ATP) in our analyses and results. However, we do occasionally compare district leader and teacher data in this report; readers should exercise caution in interpreting district

² A metastudy of 68 surveys in 49 studies by Cook, Heath, and Thompson (2000) found an average 39.6 percent response rate among national survey studies. Similarly, Schonlau, Fricker, and Elliott (2002) found that response rate ranged from 7 to 44 percent in their review of a range of survey studies. Sauermaann and Roach (2013) classify response rates of 40–70 percent as “relatively high” given the current trend, with responses in the 10–25 percent range considered low.

Table 3.2
ATP and District Leader Survey Completion Rates

	Sampled	Completed	Completion Rate
ATP survey			
Louisiana	473	241	51.0%
Massachusetts	556	301	54.1%
Rhode Island	411	232	56.4%
District leader survey			
Louisiana	164	38	23.2%
Massachusetts	469	79	16.8%
Rhode Island	53	23	43.4%

leader survey results, given the small sample size and the likelihood that patterns in nonresponse were not random (i.e., those who did respond may be more engaged in ELA instruction or the topics of our research more generally).

Survey Content

The goal of the surveys was to investigate the extent to which various aspects of teachers' instructional systems for ELA were aligned with CCR state standards. We constructed survey instruments based on the conceptual framework for coherent instructional systems described above. Tables 3.3a and 3.3b present a map of conceptual framework components to the promising practice or key indicator for which we constructed survey items and for which we will be presenting results. For the system components, we also indicate in Table 3.3a whether the survey items assess the component's alignment to standards or coherence with the curriculum (see also the red arrows in Figure 2.1). In brief, for district leaders, we asked them about their district's required and recommended curriculum materials, the amount and kind of content- and curriculum-focused professional learning they provided to teachers, the district's teacher evaluation criteria, assessment and data infrastructure, and the presence of conditions that support coherence. For teachers, we asked them about their use of core curriculum materials, their receipt of professional learning opportunities, the criteria by which they are evaluated, how students are assessed, and the presence of conditions that support coherence.

Analysis

We analyzed our data overall and for each of several different groups of teachers. We based our teacher groups on four contrasts:

- state, which we obtained from administrative data: Louisiana, Massachusetts, and Rhode Island (with Louisiana as the reference category)
- grade level, which we obtained from the ATP survey: elementary, middle, and high (with elementary as the reference category)
- use of standards-aligned curriculum materials, which we obtained from the ATP survey (we consider teachers as using standards-aligned materials if they reported regular use of any material that is rated by EdReports as meeting expectations for alignment)

Table 3.3a
Mapping Conceptual Framework Components to Key Indicators Used in Survey: System Components

Instructional System Component Enabling Coherence	Indicator or Survey Item	Item Addresses Alignment to Standards	Item Addresses Coherence with Curriculum
Standards-aligned curricula	Teachers use a standards-aligned curriculum regularly	Yes	Not applicable
Curriculum-related resources	Teachers are provided seven specific, common, and useful supporting curriculum materials	No	Yes
Curriculum-specific professional learning opportunities	Sustained curriculum-specific professional learning is offered frequently and helps teachers address the needs of specific subgroups of vulnerable students	No	Yes
Standards- and curriculum-aligned instructional supervision and evaluation criteria	Teacher evaluations include alignment of instruction to standards, curriculum guidance, and the extent to which the teacher meets the needs of diverse groups	Yes	Yes
Standards- and curriculum-aligned assessments	Interim and summative assessments align in content with standards, curriculum, and each other	Yes	Yes

Table 3.3b
Mapping Conceptual Framework Components to Key Indicators Used in Survey: Conditions Enabling Coherence

Condition Enabling Coherence	Indicator or Survey Item
Vision for academic improvement	Schools have clear goals for student learning
Culture of continuous improvement	Educators examine teaching practices to improve
Instructional leadership	Leaders model learning
Common instructional vision	Teachers use a set of common teaching practices
Consideration of time, structures, and resources	Structures and processes support collaboration, strategic scheduling, and staffing assignments based on teacher strengths and student needs

- serving high proportions of our student groups of interest (classroom characteristics), which we obtained from teacher reports on the ATP survey (we created five dummy variables representing teachers who reported teaching high proportions of historically underserved student groups: 11 percent or more ELs, 11 percent or more SWDs, 51 percent or more SoCs [non-White students], 51 percent or more students performing below grade level, and 76 percent or more low-income students).

Table 3.4 shows descriptive statistics for our sample on these contrasts. These results and all others throughout the report are weighted to match the state averages for teachers. Our sample is approximately evenly balanced across states (30–39 percent of the sample in each of the three states) and mostly consists of elementary teachers. About a third of the teachers reported using a standards-aligned material. For the student groups, the most common is more than 10 percent SWDs and the least common is more than 50 percent of students below grade level.

Table 3.4
Descriptive Statistics of the Teacher Sample

Variable	Count	Percentage
State		
Louisiana	241	31
Massachusetts	301	39
Rhode Island	232	30
Grade band		
Elementary	542	70
Middle	114	15
High	98	13
>1 grade band	20	3
Teachers serving high-EL population (i.e., in classrooms with more than 10% ELs)	210	27
Teachers serving high population of SWDs (i.e., in classrooms with more than 10% SWDs)	444	57
Teachers serving majority non-White students (i.e., in classrooms with more than 50% SoCs)	210	27
Teachers serving majority below-grade-level students (i.e., in classroom with more than 50% students below grade level)	169	22
Teachers serving a high population of low-income students (i.e., in classrooms with more than 75% students receiving free or reduced-priced lunch)	281	36

NOTES: Percentages might not add to 100 because of rounding. All variables except state obtained from ATP survey responses of teachers.

Our primary mode of presenting results is to calculate unadjusted means and proportions overall and for each of our groups of interest. We present these in tables and figures throughout the report.

To ensure that the mean differences we observed were robust, we examined the main factors driving the associations we observed using multiple linear regression. In other words, for each outcome, we ran a multiple regression that controlled for each of the contrasts (state, grade level, use of standards-aligned materials, and serving high proportions of our student groups of interest). When we discuss results in the text, we note mean differences that were statistically significant in these multiple regression models. For noncontinuous (e.g., dichotomous, ordinal) outcomes, we also ran appropriate nonlinear models (e.g., logit, ordered logit). Results were always the same in terms of the direction of the differences, but they sometimes differed in statistical significance; we note where there were differences. To limit the size of tables, we focus on presenting results in tables if the mean differences remained statistically significant in the regressions. Note that although the >1 grade band is included in the descriptive statistics and controlled for in regressions, we do not report means for this group in tables because it was such a small group.

For the first five research questions, we focused on the alignment of the curriculum to the state standards and the alignment of other instructional system components to the standards

or the curriculum. We used the results of these analyses to build a measure representing the extent of coherence in teachers' ELA instructional systems. We used this, together with the results about the presence of enabling conditions, to address our final research question: How many teachers have access to an instructional system that demonstrates coherence along these dimensions? We generated profiles corresponding to teacher access to a coherent instructional system. Specifically, we generated three 1/0 indicators, corresponding to

- whether a teacher reported regularly using a standards-aligned curriculum
- whether a teacher reported at least two of the following four factors: (1) receiving at least four of seven (i.e., a majority) possible curriculum-related supports, (2) receiving at least one multiday curriculum-related professional development (i.e., ongoing), (3) having interim assessments at least moderately aligned with other instructional supports, and (4) having evaluations focused on standards-aligned instruction and supporting diverse students to at least a moderate extent
- whether a teacher reported that five enabling conditions for coherence were present—based on the seven variables noted in Table 3.3—to at least a moderate extent.

Then, we generated eight profiles of teachers, corresponding to the eight possible combinations of these three 1/0 indicators. We report the overall distribution of teachers across these eight categories, and we also explain our tests of whether the distribution differs across states, grade spans, and classroom student characteristics using chi-square tests.

There are a number of important limitations to our research. First, all of our measures are based on teachers' or district leaders' self-report. Although most of the measures take into account what teachers report doing, rather than their opinions, they are less likely subject to concerns about social desirability or other response biases. However, our results may nonetheless differ if they were supplemented with observations, document analysis, or other means of triangulating the results. Second, although our survey response rates for the teacher survey were in line with other ATP surveys, it may be that the results would differ for the approximately 46 percent of teachers who did not respond. Third, as mentioned, district respondents were asked to focus on just middle and high school grades, which makes their results not directly comparable to teacher respondents. Fourth, although our conceptual framework focuses on the importance of teachers using standards-aligned materials, some of the materials teachers report using have not been rated by EdReports, and, of course, teachers' self-created materials have not been rated either. Thus, even though our data provide useful information about the percentage of teachers using materials with evidence of alignment with standards, they may underestimate the percentage of teachers who are doing so. Finally, all results are descriptive and are not meant to imply any causal relationships.

Results

In this chapter, we present findings according to the research questions provided in Chapter Three. We start by examining teachers' and district leaders' reports regarding their main curriculum materials because a standards-aligned curriculum is a critical centerpiece around which other components can cohere. Then, we consider the extent to which teachers receive supports from four other instructional components that are coherent with the curriculum (and aligned with standards): curriculum resources, professional learning, evaluation criteria, and interim assessments. Next, we consider the extent to which teachers and district leaders report the presence of conditions that might enable coherence within schools. In a final section, we look across teachers' responses to various components—curriculum, curricular supports, professional learning opportunities, evaluation criteria, and student assessments—to report on the extent to which teachers in our sample appear to experience varying degrees of coherence in their school-level ELA instructional system. As noted in our methods section in Chapter Three, we focus on presenting results in tables if the mean differences remain statistically significant in the regressions. If differences are not statistically significant, we do not include them.

Use of Standards-Aligned Curriculum Materials

As noted in Chapter One, curriculum materials have recently been activated as a key lever to achieve standards-aligned instruction at scale. Yet it is not a given that teachers are regularly using standards-aligned curriculum materials or that the curriculum they do use coheres with required assessments. Because curriculum anchors teachers' day-to-day instruction, it is fundamentally important to examine its alignment and role in supporting coherence among key instructional components.

Most Teachers Do Not Use Standards-Aligned Materials Regularly, Except in Louisiana

We start by examining the materials that district leaders reported requiring or recommending teachers use. Importantly, we asked district leaders only about their instructional materials at grades 6–8 and 9–12. Overall, across Louisiana, Massachusetts, and Rhode Island, 39 percent of district leaders reported requiring or recommending the use of one or more middle or high school materials rated as standards-aligned by EdReports. The vast majority of these (31 percent) were required, and standards-aligned materials were more common in middle grades (34 percent of districts) than in high school (23 percent). There were sharp differences across states on this measure, with 80 percent of Louisiana district leaders reporting that their district

required or recommended at least one standards-aligned curriculum, as compared with just 19 percent in Massachusetts and 25 percent in Rhode Island.

These figures broadly correspond to teachers' reports of the materials they actually used in those three states. As shown in Table 4.1, just over one-third (34 percent) of our teacher sample reported regularly using one or more curricula rated as standards-aligned by EdReports, slightly lower than the percentage reported by district leaders. (If we restrict the teacher sample to just middle and high school grades for an apples-to-apples comparison with the district leader survey, 30 percent of teachers reported regular use of standards-aligned material.)

Although there were a number of mean differences across groups, the main driver of teachers' use of standards-aligned materials was the state in which they taught. Even after controlling for demographics and grade-band distributions in regression models, Louisiana teachers were dramatically more likely than Massachusetts or Rhode Island teachers to report regular use of standards-aligned materials. Despite large descriptive differences in standards-aligned material use across levels of SoCs and low-income students, just two classroom characteristics were statistically significant in the regression: Teachers with majority-SoC classes were more likely to use standards-aligned materials than their counterparts serving lower percentages of SoCs, and teachers serving high proportions of ELs were more likely to use standards-aligned materials than their counterparts serving low proportions of ELs. Given the long history of SoCs having less access to curriculum materials, these results are surprising (Chung, 2013).

Although not a major focus of this report, we briefly discuss the most common materials that teachers reported using for ELA in our three partner states. See Opfer, Kaufman, and Thompson (2016) for discussions of the prevalence of major curriculum materials.

For elementary teachers, the most commonly used materials included Accelerated Reader (48 percent) and Core Knowledge Language Arts Amplify (36 percent) in Louisiana, Foundations (29 percent) and Lucy Calkins Study in Reading (27 percent) in Massachusetts, and Foundations (38 percent) and Reading A-Z (24 percent) in Rhode Island. Notably, 9 percent, 33 percent, and 27 percent of teachers reported using self-created materials in Louisiana, Massachusetts, and Rhode Island, respectively.

Among middle school teachers, the most commonly used curricula were Accelerated Reader (46 percent) and CommonLit (42 percent) in Louisiana, CommonLit (22 percent) and Lucy Calkins Study in Argument (18 percent) in Massachusetts, and EngageNY (9 percent) and StudySync (9 percent) in Rhode Island. Self-created materials were more prominent among middle school teachers than elementary school teachers, with 21 percent, 64 percent, and 49 percent of teachers using self-created materials in Louisiana, Massachusetts, and Rhode Island, respectively.

Among high school teachers, the most commonly used materials were LearnZillion's ELA Guidebook Units (63 percent) and CommonLit (62 percent) in Louisiana, Prentice Hall Literature (14 percent) and CommonLit (12 percent) in Massachusetts, and Prentice Hall Literature (27 percent) and Pearson Literature (26 percent) in Rhode Island. The proportions of high school teachers who reported using self-created materials in all three states were higher than for other grade levels: 47 percent of high school teachers in Louisiana, 74 percent in Massachusetts, and 52 percent in Rhode Island. Of all these most commonly used curricula, only Core Knowledge Language Arts and Guidebook Units are rated by EdReports as standards aligned.

In short, the results from this analysis indicate that most teachers in Massachusetts and Rhode Island were not using standards-aligned materials, whereas most teachers in Louisiana

Table 4.1
Percentage of Teachers Who Reported Using Standards-Aligned
Materials for ELA Regularly (i.e., once a week or more)

Variable	Percentage
Overall	34
State	
Louisiana*	78
Massachusetts	6
Rhode Island	25
Grade band	
Elementary	36
Middle	32
High	29
Among teachers who report serving . . .	
More than 10% ELs*	38
10% or less ELs	33
More than 10% SWDs	32
10% or less SWDs	37
More than 50% SoCs*	52
50% or less SoCs	27
More than 50% students below grade level	35
50% or less students below grade level	34
More than 75% low-income students	53
75% or less low-income students	23

NOTES: $n = 774$. Values based on responses to the question, “Which of the following instructional materials do you use regularly (once a week or more) for your [grade span] ELA classroom instruction this school year (2018–19)?”

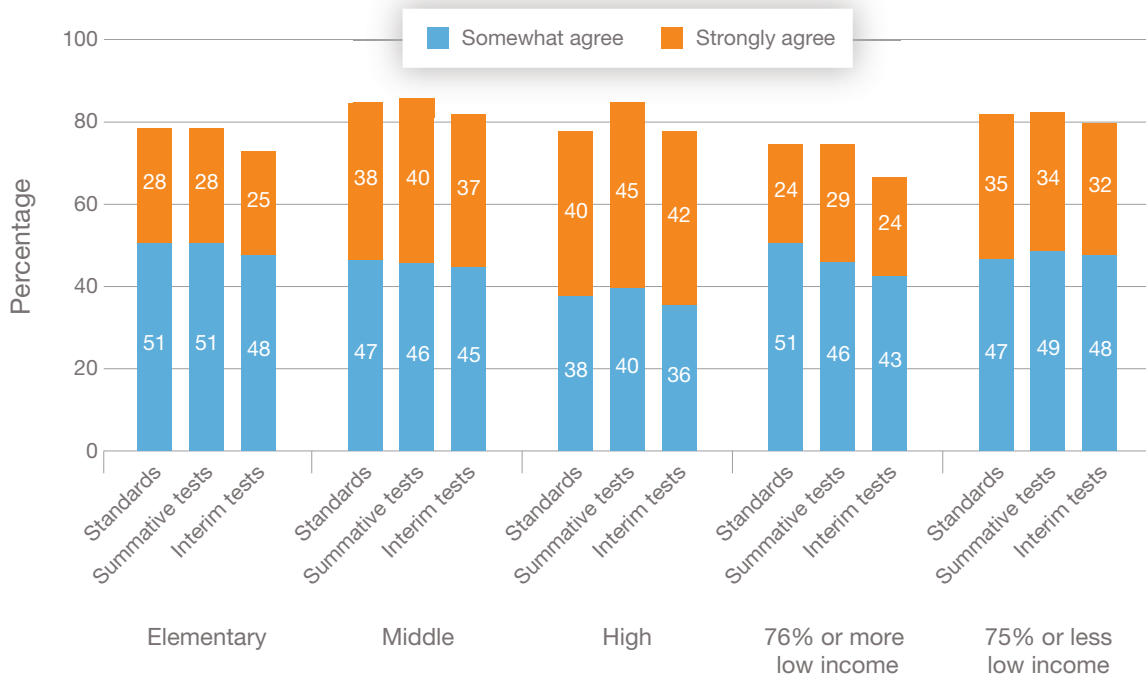
* We observed a significant difference ($p < 0.05$) in regression models for that subgroup.

were. That said, some of the most widely used materials on the survey have not been rated by EdReports, and, of course, teachers’ self-created materials have not been rated either.

Most Teachers Regard Their Main ELA Instructional Materials as Aligned with Standards and Assessments, Though Not Strongly

We also asked teachers about their perceptions of their main instructional materials, with a specific focus on the coherence of those materials with assessments and alignment with standards. Seventy-five to 80 percent of teachers agreed that their curriculum materials covered formative and summative assessment content and helped students master the standards (see Figure 4.1). That said, in general, the plurality of teachers indicated they “somewhat agreed,”

Figure 4.1
Teachers' Agreement That Their Main Instructional Material Covers Content, by Grade Band



NOTES: Teachers responded to the question, "My main ELA instructional materials . . . a) help my students master ELA state standards; b) cover content addressed by my state-mandated assessment sufficiently; c) cover content addressed by my school system's interim or benchmark assessments sufficiently." Response scale: strongly disagree, somewhat disagree, somewhat agree, strongly agree.

suggesting teachers believed their main materials had room for improvement in these areas. Readers should keep in mind that we did not take into account teachers' perceptions about their materials in determining whether their materials were aligned with standards in the previous section; standards-alignment of curricula was determined through EdReports ratings.

There were few statistically significant differences in teachers' perceptions of their materials, as shown in Figure 4.1. Middle school teachers were significantly more likely to somewhat or strongly agree that their materials covered content on summative and interim assessments than elementary teachers were (the difference between high school and elementary school teachers was of a similar magnitude but not statistically significant). Teachers of a high proportion of low-income students were significantly less likely to agree their main materials helped students master standards or covered content on state tests. And teachers of a high percentage of ELs were less likely to agree their main materials helped students master standards.

We also analyzed the results by treating the three items as a scale; the results indicated the same general pattern, with middle school teachers indicating significantly higher coherence and teachers of more low-income students indicating significantly lower coherence.

Curriculum-Related Resources

Curriculum-related support materials help signal how teachers are to use or adapt the curriculum to support student learning, including for traditionally underserved populations. We expect that teachers who receive more of these supports are more likely to use the adopted curriculum than those who receive fewer of these supports and in ways intended by the district or the authors of the materials. Therefore, the extent to which teachers have access to these support materials may be consequential for the quality of instruction and, ultimately, students' learning.

Most Teachers Receive Many Instructional Resources to Support Their ELA Teaching, with Elementary Teachers Receiving More Than Their Middle and High School Counterparts

We investigated the degree to which teachers have been provided seven specific curricular supports, either through their main materials or by their school districts:

1. lesson plans
2. online software
3. pacing guides
4. learning assessments
5. suggested remediation activities or interventions for struggling students based on results of assessments students have taken
6. suggested remediation activities or interventions for struggling students not based on results of assessments
7. suggestions for how to anticipate or interpret student thinking in response to instructional activities.

We first focus on whether teachers reported receiving these supports at all (whether through their materials or school system), and we then consider the source of these supports.

On average, as shown in Table 4.2, teachers received 4.3 of these seven resources—whether through their main materials or their school—suggesting that teachers were generally well supported. The most common supports teachers reported receiving were learning assessments (77 percent of teachers received this support) and pacing guides (73 percent). The least common were lesson plans (52 percent) and help to anticipate or interpret student thinking in response to instructional activities (51 percent).

There was very little variation in teachers' receipt of curriculum supports according to the characteristics of their students or whether they used a standards-aligned material. In contrast, there were differences across grade levels and states, as seen in Table 4.2.

In terms of state-level differences, Massachusetts and Rhode Island teachers were about 15 percentage points more likely to receive lesson plans than Louisiana teachers, after controlling for other variables (the unadjusted differences shown in the table were 8 to 11 percentage points). In contrast, Louisiana teachers were 13–16 percentage points more likely than Massachusetts or Rhode Island teachers to receive suggested remediation activities not based on assessments or to receive suggestions for anticipating student responses. As shown in the bottom row of Table 4.2, the total number of supports received did not differ across states.

The differences across grade levels were even more pronounced and consistent, with elementary teachers significantly more likely than middle school teachers to receive four of the

Table 4.2
Percentage of Teachers Who Are Provided Selected Curriculum Supports

	Overall	State			Grade Band		
		Louisiana	Massachusetts	Rhode Island	Elementary	Middle	High
Lesson plans	52	47*	55*	58*	60*	41*	24*
Online software	61	64	58	68	65*	48*	56
Pacing guides	73	76	71	73	82*	57*	51*
Learning assessments	77	73	80	81	82*	74	60*
Remediation (by assessment)	58	62	54	60	66*	46*	33*
Remediation (not by assessment)	58	67*	52*	52*	64*	52	42*
Help to anticipate student responses	51	62*	43*	48*	51	58	41
Average number of resources	4.30	4.51	4.13	4.40	4.70*	3.76*	3.07*

NOTES: $n = 774$. Values are based on responses to question, “Which of the following instructional resources are provided to you, either within your main ELA instructional materials or by your school system (i.e., excluding what you find yourself)?”

* We observed a significant difference ($p < 0.05$) in regression models for that subgroup.

seven supports and significantly more likely than high school teachers to receive five of the seven supports. Some of these differences were quite large. For instance, 60 percent of elementary teachers reported receiving lesson plans, versus 41 percent of middle school teachers and 24 percent of high school teachers. On average, elementary teachers reported receiving 4.7 of the seven instructional supports, whereas middle school teachers received 3.8 and high school teachers received 3.1. These differences were statistically significant.

Because we asked teachers whether these support materials were provided by either their curriculum materials or their schools, we also examined the source of the differences we reported above. Briefly, the difference in teachers’ receipt of instructional supports was largely due to their curriculum materials, not their schools. For instance, 11 of the 14 coefficients on grade spans were statistically significant in the model in which the dependent variable was the textbook’s provision of supports. In contrast, just three of the 14 coefficients on grade spans were statistically significant in the model in which the dependent variable was the school’s provision of supports.

Overall, these results suggest that there is especially room to provide greater curriculum supports to middle and high school teachers. These curriculum supports could help drive standards implementation and use of curriculum in ways that are reinforced by professional learning and that prepare students for assessments. In this respect, curricular resources are a key component of a coherent instructional system. Furthermore, results suggest that the main inequity in supports across grade spans is due to the materials themselves—textbooks used by middle and high school teachers seem to come with fewer supports than those used by elementary teachers.

Curriculum-Specific Professional Learning

Professional learning opportunities that are specifically connected to the adopted curriculum support teachers to use or adapt the materials in intended ways—presumably standards-aligned ways. Absent professional learning that is coherent with the curriculum (and standards aligned), teachers bear the burden of learning various curriculum elements or reconciling the professional learning content with their curriculum framework. This is difficult if the two are not clearly compatible or mutually reinforcing.

Teachers Are Frequently Offered Professional Learning Communities (PLCs) but Rarely Offered Specific Training on Their Curriculum

We asked both teachers and district leaders about teachers' professional learning opportunities related to curriculum materials. These questions are important for gauging the extent to which professional learning—which is ubiquitous in districts across the country—is of high quality, coheres with instructional materials, and focuses on our student groups of interest. Importantly, we asked only about professional learning in the current year, so we cannot say anything about professional learning provided or received in prior years. Previous research describes how reports of current-year versus ever-received curriculum-specific professional learning differ (Blazar et al., 2019).

As seen in Table 4.3, district leaders reported a variety of curriculum-specific professional learning opportunities. The most common of these was in the form of ELA curriculum-focused PLCs, which 60 percent of district leaders reported were provided at least four times per year and just 21 percent of district leaders reported not providing at all. Curriculum-focused coaching and observations of other teachers' curriculum implementation were somewhat common (41 percent and 30 percent of district leaders, respectively, reported providing these opportunities four or more times per year). In contrast, curriculum-specific trainings were quite uncommon. Only 13 percent of district leaders reported that one-day ELA curriculum trainings were provided four or more times per year, and only 16 percent reported providing multiday curriculum trainings four or more times per year.

Table 4.3
Percentage of District Leaders Reporting Frequency of Curriculum-Specific Teacher Professional Learning Activities

	Never	1–3 Times per Year	4–6 Times per Year	1–3 Times per Month	Weekly or More Often
One-day training on ELA curriculum	36	51	11	2	0
Training over a period of days on ELA curriculum	41	43	8	6	1
ELA curriculum-focused PLC	21	19	17	23	20
ELA curriculum-focused coaching	35	24	8	14	18
Observations of other teachers' curriculum implementation	22	48	10	14	6

NOTES: $n = 140$. Values are percentages of district leaders and are based on responses to the question, "This school year (2018–19), how often has your school system provided the following 'curriculum-specific' ELA professional learning opportunities to ELA teachers in grades 6 through 12? By 'curriculum-specific,' we mean professional learning focused on teachers' required or recommended instructional materials."

Looking across the five types of curriculum-related professional learning opportunities that we asked about, 47 percent of district leaders gave an average response of one or less on the 0–4 frequency scale, meaning that, on average, these opportunities were provided one to three times or less per year in about half the districts that responded to our survey.

We also asked district leaders about the focus of the professional learning opportunities; the results are shown in Table 4.4. The two most common foci were implementation of required or recommended curriculum materials (38 percent of district leaders reported offering professional learning with this focus four or more times a year) and adaptation of the required or recommended curriculum materials to meet the needs of struggling students (35 percent of district leaders reported offering professional learning with this focus four or more times a year). Adaptation of materials to meet the needs of ELs (21 percent of district leaders reported this adaptation four or more times per year) and adaptation to improve cultural relevance (17 percent) were much less common.

Teacher Reports Are Similar—They Often Receive PLCs and Common Planning Time, but Rarely Receive Curriculum-Focused Trainings

We asked teachers very similar questions about their receipt of curriculum-focused professional learning opportunities. For these questions, we report results both by using the survey scale, as above, and also by converting the scales into the approximate number of times per year by taking the midpoints of each scale option. We also added an item—common planning time—that we did not ask about on the district leader survey. See Table 4.5 for the results.

In terms of the ranking of the activities from most to least frequent, the results are fairly consistent between the teacher survey (Table 4.5) and the district leader survey (Table 4.3). However, there is some disagreement about the frequency of these activities. By far the most common curriculum-focused professional learning support teachers received was common planning time, which 53 percent of teachers said they received once a month or more. PLCs were also common, with 66 percent of teachers saying they received these at least once (and 28 percent once a month or more). Teachers agreed with leaders that it was far less common to

Table 4.4
Percentage of District Leaders Reporting Frequency of Various Types of Content in Teacher Professional Learning Activities

	Never	1–3 Times per Year	4–6 Times per Year	1–3 Times per Month	Weekly or More Often
Implementation of recommended or required ELA instructional materials	19	43	21	12	5
Adaptation of recommended or required ELA instructional materials to meet the needs of ELs	32	47	13	7	1
Adaptation of recommended or required ELA instructional materials to improve cultural relevance	42	41	13	4	1
Adaptation of recommended or required ELA instructional materials to meet the needs of struggling students	17	47	24	7	5

NOTES: $n = 140$. Values are percentages of district leaders and based on responses to the question, “This school year (2018–19), how often has your school system provided the professional learning opportunities focused on the following topics for ELA teachers in grades 6 through 12?”

Table 4.5
Percentage of Teachers Reporting Receipt of These Curriculum-Specific Professional Learning Opportunities This Year

	Never	1–3 Times per Year	4–6 Times per Year	1–3 Times per Month	Weekly or More Often
One-day ELA training	36	56	5	2	1
ELA over multiple days	57	36	4	2	0
ELA PLC	34	28	10	12	16
Common planning time	20	19	8	18	35
ELA coaching	44	32	7	9	8
Observations of teachers	55	34	4	4	2

NOTES: $n = 774$. Values are based on responses to the question, “This school year (2018–19), how often have you received the following ‘curriculum-specific’ ELA professional learning opportunities? By ‘curriculum-specific,’ we mean professional learning opportunities focused on your main ELA instructional materials.”

receive curriculum-specific observations of other teachers’ instruction (only 10 percent receiving more than three times per year), one-day trainings on their curriculum (only 8 percent receiving more than three times per year), or multiday trainings on their curriculum (only 6 percent receiving more than three times per year and only 43 percent receiving any at all).

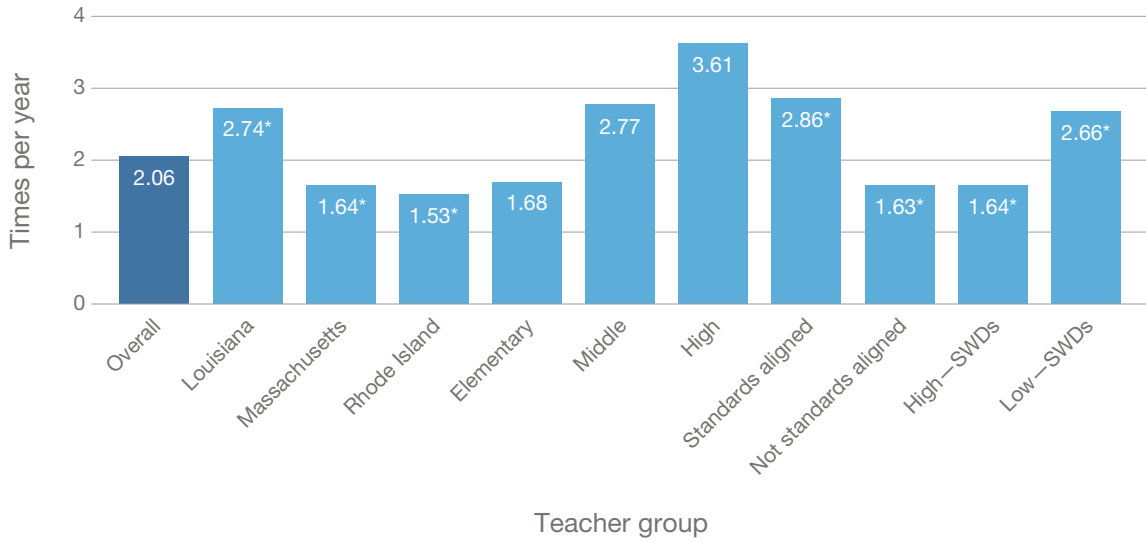
These means mask important variation in teachers’ received curriculum-specific professional learning supports across all of our categories of interest, as shown for example in Figures 4.2–4.4. For these figures, we convert the survey scale to an approximate number of times per year by taking the midpoint of each scale range. Across states, Louisiana teachers reported receiving the most curriculum-specific professional learning overall (i.e., averaging across items) and in several specific categories. They reported receiving significantly more single-day and multiday curriculum training than teachers in Rhode Island. They also reported receiving about twice as many curriculum-specific PLC opportunities as Massachusetts teachers (12.7 versus 6.7 times per year) and about three times as many as Rhode Island teachers (4.3 times per year).

There were two significant differences for standards-aligned materials users. Teachers using standards-aligned materials reported significantly more curriculum-specific trainings (both single day and multiday) than teachers who did not report using standards-aligned materials.

In terms of grade levels, the only significant difference was for classroom or teacher observations. Elementary teachers reported observing other teachers far less frequently (1.8 times per year versus 4.0 to 4.6 times per year for middle and high school teachers). This is likely owing to scheduling or structural differences between (1) elementary and (2) middle and high schools (i.e., elementary teachers teach self-contained classes, and there may be only a few teachers at a given grade level in a school, so it may be less practical for them to observe other similar teachers).

Finally, in terms of student groups, we found only one clear and consistent pattern: Teachers who teach high proportions (11 percent or more) of SWDs consistently reported less access to professional learning of a variety of types than teachers who teach fewer SWDs. Low-

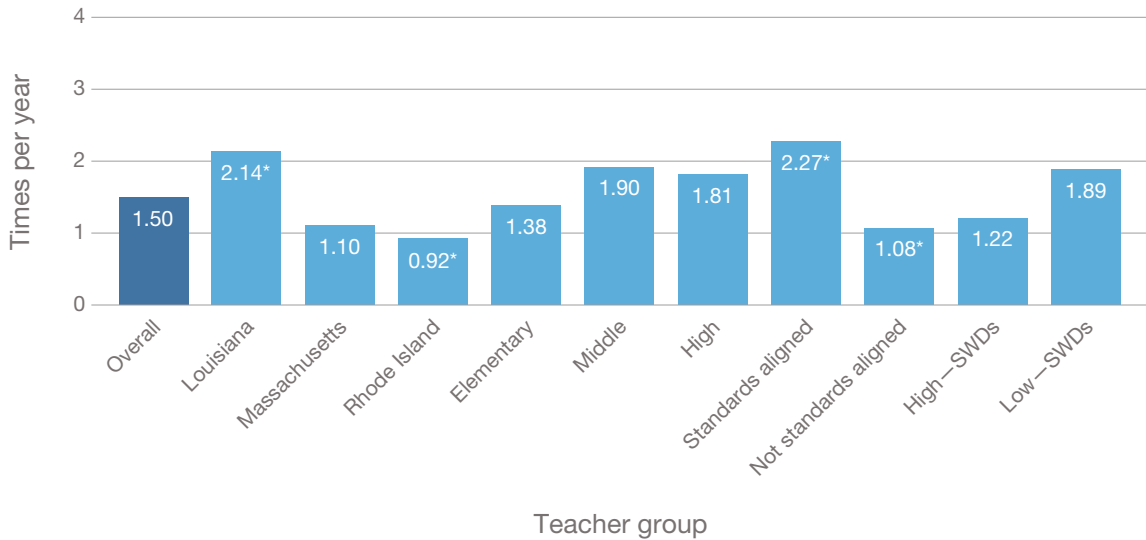
Figure 4.2
One-Day Training on ELA Curriculum



NOTES: $n = 774$. Survey question: “This school year (2018–19), how often have you received the following ‘curriculum-specific’ ELA professional learning opportunities? One-day training on my ELA curriculum.”

* $p < 0.05$ (denotes a statistically significant subgroup difference).

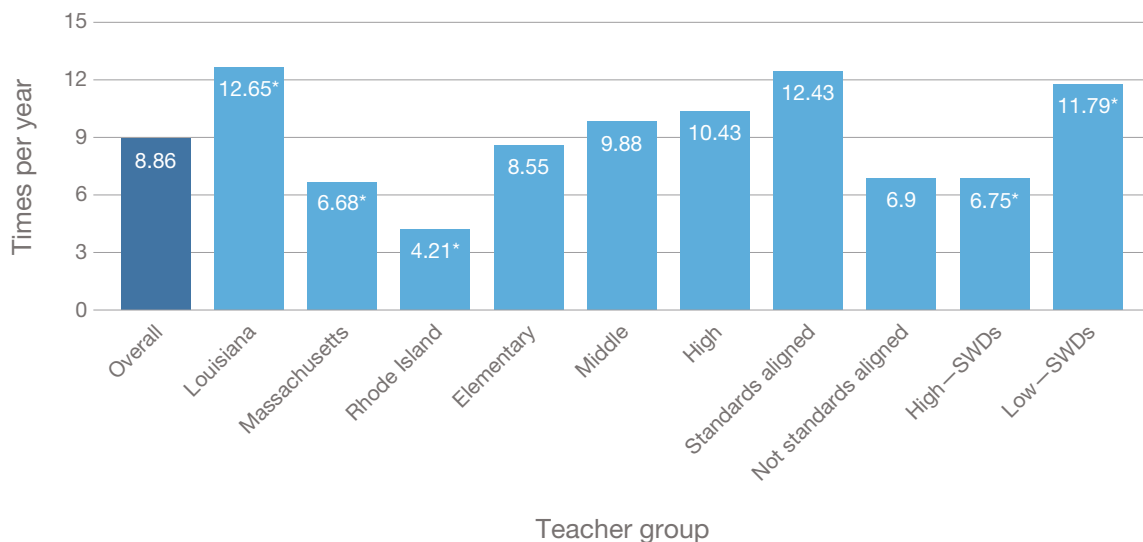
Figure 4.3
Multiple-Day Training on ELA Curriculum



NOTES: $n = 774$. Survey question: “This school year (2018–19), how often have you received the following ‘curriculum-specific’ ELA professional learning opportunities? Training over a period of days on my ELA curriculum.”

* $p < 0.05$ (denotes a statistically significant subgroup difference).

Figure 4.4
ELA PLC



NOTES: $n = 774$. Survey question: "This school year (2018–19), how often have you received the following 'curriculum-specific' ELA professional learning opportunities? ELA curriculum-focused professional learning community."

* $p < 0.05$ (denotes a statistically significant subgroup difference).

special-education teachers received more professional learning of all types than high- special-education teachers, with three of these differences statistically significant: one-day curriculum trainings, PLCs, and observations of other teachers (although only the PLC difference was statistically significant when we used an ordered logit instead of an ordinary least squares regression).

Curriculum-specific professional learning impresses on teachers the key content to teach, the scope and sequence to follow, and the key features and strategies associated with the curricular approach, thus helping teachers implement the curriculum. That, on the whole, teachers reported receiving curriculum-specific training very rarely likely means that they are having to decipher on their own how to use the curriculum to teach to the standards. Or they may be drawing signals from generic professional learning sessions, which may undermine or contradict the design of the curriculum. Such unclear or mixed messages are a marker of incoherence in the instructional system.

Curriculum-Oriented Professional Learning Is Mainly Focused on the Implementation of Main Materials and Support for Struggling Students and Rarely on Support for Specific Student Groups

We asked teachers how often they received professional learning opportunities focused on their curriculum and supporting diverse student groups. Here, there were several key findings, as seen in Table 4.6 and Figure 4.5. First, teachers reported receiving professional learning focused on implementing their main materials (6.3 times per year) or instructional strategies focused on generic struggling students (5.5 times) much more so than they reported receiving professional learning focused on instructional strategies for students with Individualized Education Programs (IEPs) or learning disabilities (4.0 times), ELs (3.0 times), advanced students (2.8 times), or culturally relevant pedagogy (3.3 times).

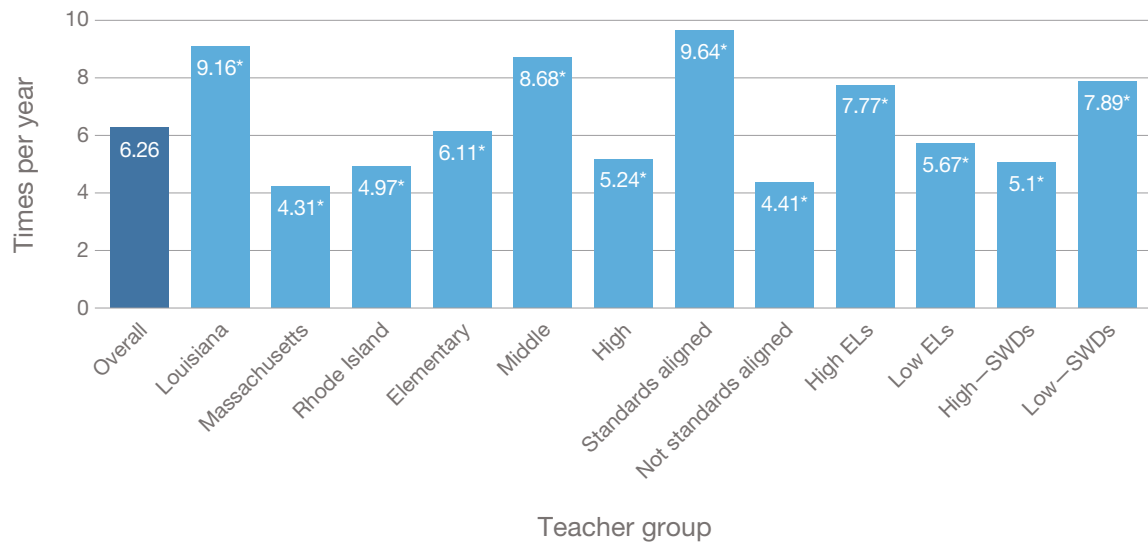
Table 4.6
Number of Times Teachers Report Receiving Professional Learning for Supporting Diverse Student Groups This Year

	Overall	Louisiana	Massachusetts	Rhode Island	Standards Aligned	Not Standards Aligned	Elementary School	Middle School	High School	High ELs	Low ELs	High SWDs	Low SWDs
Implementation of your main materials	6.26	9.16*	4.31*	4.97*	9.58*	4.42*	6.11*	8.68*	5.24	7.77	5.67	5.10*	7.89*
Strategies to meet the needs of ELs	2.96	3.44	2.66	2.50	3.69	2.55	3.12	3.10	2.48	4.71*	2.27*	1.96*	4.34*
Strategies to meet the needs of struggling students	5.48	7.33	4.31	4.04	7.56	4.32	5.66	5.20	5.66	6.17	5.21	4.45*	6.92*
Strategies to meet the needs of students with IEPs or learning disabilities	3.96	4.61	3.50	3.86	4.89	3.45	3.82	4.27	5.00	4.46	3.77	3.41	4.73
Strategies to provide culturally relevant pedagogy	3.33	4.56	2.49	2.84	4.43	2.71	3.35	3.21	3.82	3.58	3.23	2.33*	4.71*
Strategies to meet the needs of advanced students	2.83	4.07	2.00	2.23	4.07	2.14	3.18	2.18	2.30	3.10	2.73	1.85*	4.21*

NOTES: $n = 774$. Values are based on responses to question, "This school year (2018–19), how often have your professional learning opportunities focused on the following topics?"

* $p < 0.05$ (denotes a statistically significant subgroup difference).

Figure 4.5
Professional Learning on Implementation of Main Materials



NOTES: $n = 774$. Survey question: “This school year (2018–19), how often have your professional learning opportunities focused on implementation of your main ELA instructional materials?”

* $p < 0.05$ (denotes a statistically significant subgroup difference).

Second, the differences across groups were mainly on the “implementation of main materials.” For this type of professional learning, Louisiana teachers, middle school teachers, teachers using standards-aligned materials, and teachers of low proportions of students SWDs all reported receiving significantly more of these kinds of professional learning opportunities than teachers in other groups.

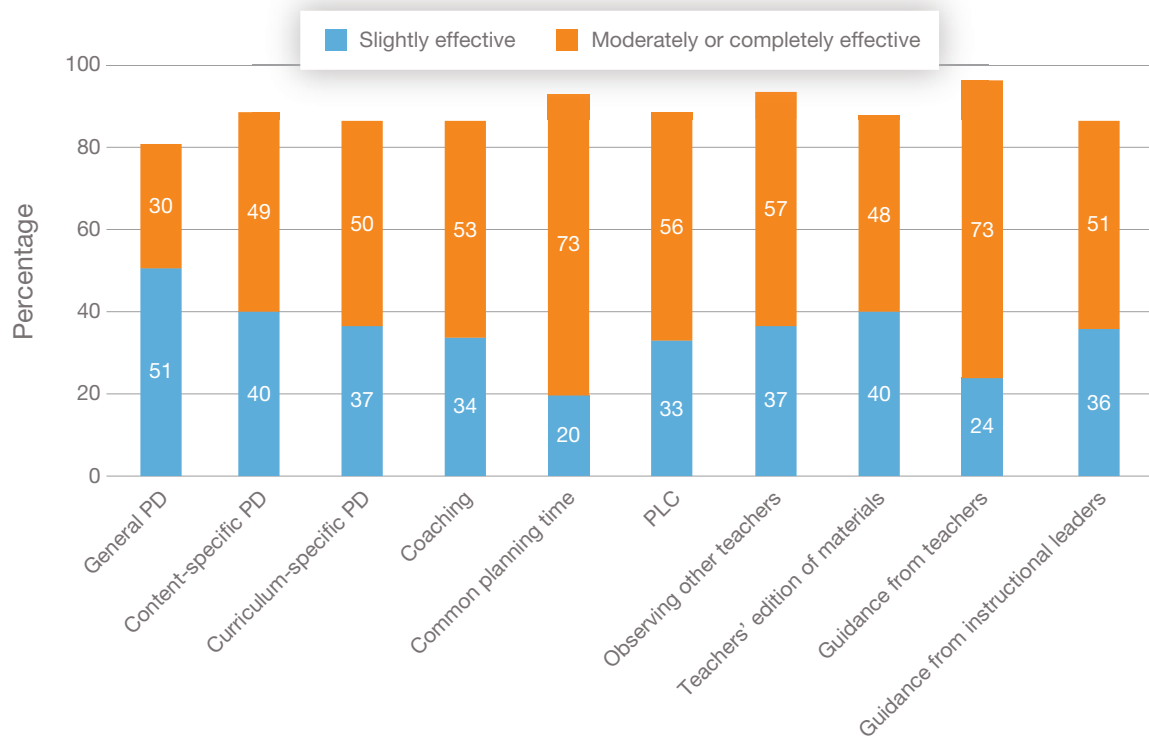
Third, teachers of SWDs received significantly less professional learning on five of the six categories (all but strategies for students with IEPs). There were few other significant differences based on student characteristics, with the one exception that teachers of more ELs reported receiving more professional learning focused on strategies for ELs.

These findings suggest that teachers overall may benefit from more-targeted professional learning focused on specific at-risk student groups, especially those that they serve in large numbers. Furthermore, the findings suggest that teachers of large proportions of SWDs may be especially in need of additional professional learning support. Without support, teachers may be poorly prepared to deliver coherent instruction to diverse student groups using the district’s adopted curriculum.

Teachers Are Only Moderately Positive, on Average, About the Effectiveness of the Professional Learning They Receive

Finally, we asked teachers for their opinion about the effectiveness of the supports that they received. Although it would be ideal to have an external measure of professional learning quality, teachers’ survey responses are nonetheless important. Indeed, the coherence of professional learning and other supports likely only matters if teachers view them as effective (and perceptions of effectiveness may be related to how coherent teachers perceive the supports to be). As shown in Figure 4.6, nearly all teachers reported the professional learning they received in each category was at least “slightly effective.” However, teachers varied considerably in the

Figure 4.6
Percentage of Teachers Who Reported That Specific Professional Learning Activities Are Effective



NOTES: $n = 774$. Survey question: "How effective were the professional learning opportunities you have received this year for helping you do the following?" PD = professional development.

categories they thought were moderately or completely effective. The most-effective supports were common planning time and guidance, advice, or feedback from instructional leaders (73 percent of teachers reporting each as moderately or completely effective). The least effective support was general professional development (only 30 percent reporting as moderately completely effective).

There were few consistent differences in ratings of professional learning effectiveness across our categories of interest. However, there were three significant differences for one group: Teachers of more SWDs reported three supports as less effective than their peers who do not serve as many SWDs—content-specific professional learning, coaching, and PLCs. It is worth reemphasizing that teachers of more SWDs also reported receiving less of each of these three kinds of supports.

Standards- and Curriculum-Aligned Teacher Evaluation Criteria

Teachers are evaluated on a variety of dimensions and for multiple purposes, both formative and summative. These evaluations can reinforce teachers' implementation of the standards and other instructional messages from the school if they focus on teachers' instructional alignment to standards and teachers' instructional efforts to support diverse student groups. Alternatively, teacher evaluations can undermine teachers' instruction and standards implementation if evaluations focus on superficial features of the classroom and teacher practice.

Teacher Evaluations Focus on Delivering Standards-Aligned Instruction, Following Curriculum Guidance, and Meeting the Needs of Low-Achieving Students and SWDs, Less So for Other Student Groups

Teachers varied in the degree to which they reported whether each given criterion was included in performance evaluations (see Table 4.7). The most common criterion was the alignment of instruction to state standards, which 77 percent of teachers said was included to at least a moderate extent. Three other criteria were reported by teachers as being emphasized to at least a moderate extent: following school system curriculum guidance (56 percent), strategies to meet the needs of struggling students (70 percent), and strategies to meet the needs of students with IEPs or learning disabilities (61 percent). The other three criteria are emphasized in performance evaluations for fewer than half of teachers.

There are some important differences across states, especially on the items about the alignment of instruction to standards and following school system curriculum guidance, both of which favor Louisiana teachers over those from Massachusetts and Rhode Island. In contrast, Massachusetts and Rhode Island teachers are more likely than Louisiana teachers to have performance evaluations that factor in their strategies to meet the needs of ELs (after adjusting for the other variables in the model).

There are sporadic differences among other subgroups in their reports of the criteria in their performance evaluations, but no other group has a significant difference on more than one of the seven criteria.

We also analyzed these data by averaging across the seven factors; there were no significant differences across any group on this composite scale.

Table 4.7
Percentage of Teachers Who Report Each of the Following Criteria Are Included in Their Performance Evaluation to at Least a Moderate Extent

Criterion	Overall	State		
		Louisiana	Massachusetts	Rhode Island
The alignment of teacher instruction to state standards	77	89*	72*	40*
How much teachers follow school system curriculum guidance	56	70*	48*	30*
Teachers' strategies to meet the needs of ELs	39	35*	43*	29*
Teachers' strategies to provide culturally relevant pedagogy	43	44	45	27
Teachers' strategies to meet the needs of struggling students	70	68	74	42
Teachers' strategies to meet the needs of students with IEPs or learning disabilities	61	68	40	60
Teachers' strategies to meet the needs of advanced students	46	57*	39*	31

NOTES: $n = 774$. Values are based on responses to question, "To what extent is each of the following criterion formally included as part of your performance evaluation this year."

* $p < 0.05$ (denotes a statistically significant subgroup difference).

Standards- and Curriculum-Aligned Assessments

Many districts and schools administer interim assessments to gauge students' preparedness for the state summative assessment and their progress toward mastery of standards, as well as to provide formative feedback to guide teachers' instruction. The data from the interim assessments are informative for these purposes only if the interim assessments align with the standards, the summative assessment, and what teachers are teaching in the classroom, as guided by their curriculum. Lack of alignment likely means that the teacher faces multiple competing messages about what to teach and what students need to learn.

Most District Leaders and Teachers Reported That Their Interim or Benchmark Assessments Are Aligned with the Content of Their ELA Standards, Summative Assessments, and Curriculum Materials

We asked both district leaders and teachers about the alignment of district interim or benchmark assessments to a variety of other policy documents. For district leaders, we asked about the alignment to (1) the content of state ELA standards, (2) the content of state-mandated summative assessments, (3) the format of state-mandated summative assessments, and (4) the content of curriculum materials required or recommended by the school system. We asked about this question separately for grades 6–8 and grades 9–12 (we did not ask about elementary assessments), but the results were so similar (means differing by less than 0.01 on a 0–3 scale of not at all, small extent, moderate extent, large extent) that we report only on grades 6–8 for space.

As seen in Table 4.8, the vast majority of district leaders reported that grades 6–8 interim/benchmark assessments were aligned with the content and format of standards, summative assessments, and curriculum materials to a large or moderate extent. The highest ratings were for alignment to state standards: 96 percent of respondents indicated interim benchmark assessments were aligned to a moderate or large extent. The lowest ratings were for alignment to the format of state-mandated assessments, but still 77 percent of respondents indicated alignment to a moderate or large extent.

Teachers' ratings of the alignment of interim assessments were also high, as shown in Table 4.9. The highest percentages of teachers reported that their interim assessments were aligned to a moderate or great extent with state standards, whereas lower percentages reported

Table 4.8
Percentage of *District Leaders* Reporting the Extent to Which Grades 6–8 Interim or Benchmark Assessments Align with or Reflect Each of the Following

	Not at All	Small Extent	Moderate Extent	Large Extent
Content of state ELA standards	0	4	29	67
Content of state-mandated summative assessment	2	14	37	47
Format of state-mandated summative assessment	3	20	38	39
Content of curriculum materials required or recommended by the school system	2	14	35	48

NOTES: $n = 140$. Survey question: "To what extent do the interim or benchmark ELA assessments for [grade span] align with/reflect each of the following:"

Table 4.9
Percentage of *Teachers* Reporting the Extent to Which Their Interim or Benchmark Assessments Align with or Reflect Each of the Following

	Not at All	Small Extent	Moderate Extent	Large Extent
Content of state ELA standards	2	15	32	50
Content of summative assessments	4	18	32	42
Format of summative assessments	9	18	29	38
Content of instruct materials	7	22	31	38

NOTES: $n = 774$. Survey question: "To what extent do you think the school system-required interim or benchmark assessments align with/reflect each of the following?"

moderate or great extent of alignment between interim assessments and the content of instructional materials or the format of summative assessments.

Teachers using standards-aligned materials also reported greater alignment of their interim assessments, with two of the four differences (content of state standards, formative of summative assessments) statistically significant. Overall, the results suggest that teachers, like leaders, generally believe that their interim or benchmark assessments are reasonably well aligned to these other policy instruments, suggesting a good degree of coherence on this component.

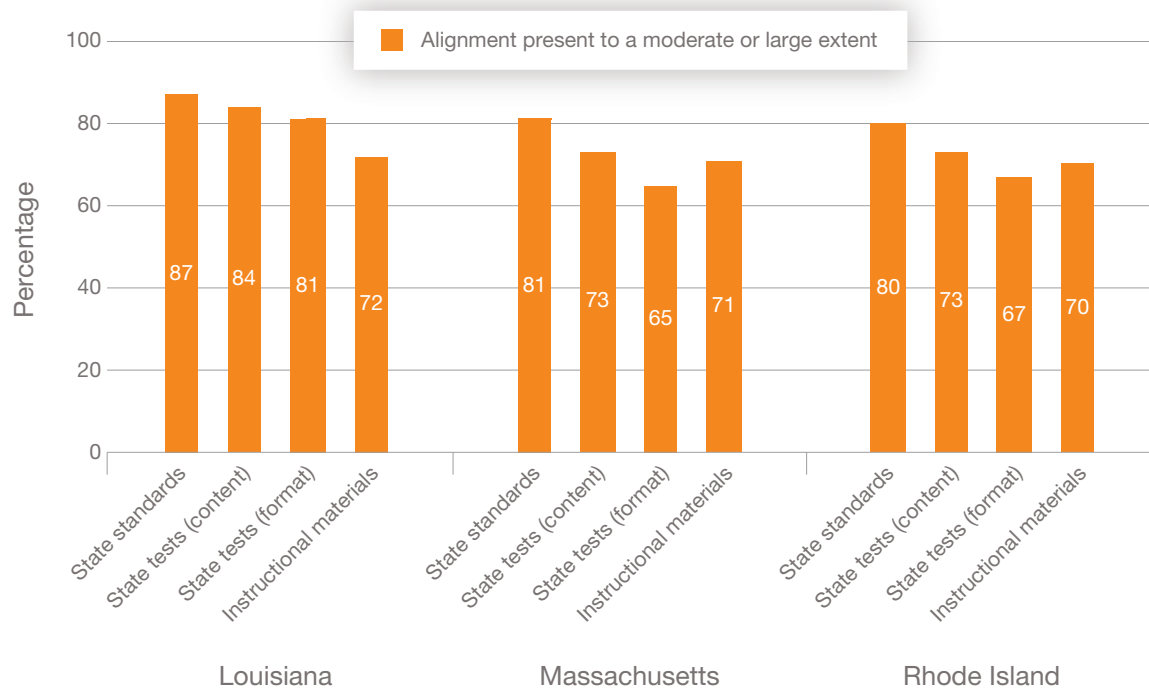
There were significant differences across states for both teachers and leaders in ratings of the alignment of interim assessments with other policy instruments. In both cases, these alignment differences favored Louisiana. On the 0–3 scale, Louisiana leaders gave an average rating of 2.57 across items, as compared with 2.29 for Massachusetts and 2.06 for Rhode Island. And as shown in Figure 4.7, Louisiana teachers rated the alignment of their interim assessments the highest, with significant differences for alignment to the content and format of summative assessments.

Presence of Conditions That Enable Coherence

In this section, we explore conditions that prior research suggests could support the coherence among ELA instructional system components. As discussed in Chapter One, these conditions could include district and school leader goals for academic improvement, clear messaging and communication, continuous improvement culture, strong instructional leadership, and considerations of time, structures, and resources. We specifically asked district leaders and teachers about whether their schools had any of the following (see Table 3.3 for mapping to conditions enabling coherence):

- a shared purpose and small set of clear goals tied to student learning
- common practices used by all teachers to improve their instruction, including examination of student work
- identification of ELA teachers to be instructional leaders and leaders who model learning
- structures and processes that support educator collaboration
- master schedule that allocates sufficient time for all aspects of ELA instruction
- strategic staffing assignments based on teacher strengths and student needs.

Figure 4.7
Teacher Reports of Their Interim Assessments' Alignment



NOTES: $n = 774$. Survey question: "To what extent do you think the school system-required interim or benchmark assessments align with/reflect each of the following?"

District Leaders Report Mixed Levels of Enabling Conditions, with Louisiana Leaders Reporting The Highest Levels, Compared With Leaders In Other States

We asked both district leaders and teachers several questions about the presence of conditions enabling coherence. For district leaders, we asked them about the presence of five enabling conditions—whether they were present in no, some, or all schools serving grades 6–12.

District leaders reported quite mixed levels enabling conditions depending on the specific item, as seen in Table 4.10. Nearly 90 percent of district leaders indicated that a small number of goals that are tied to student learning was present in all or some schools. In contrast, somewhat lower percentages of district leaders reported that ELA teachers are identified as and receive professional development to be instructional leaders in the school in all (36 percent) or some (39 percent) of schools, with a quarter of district leaders saying that this was not true in any school in their district. In terms of the other enabling conditions we asked about, moderate percentages of district leaders reported that the master schedule allocates sufficient time for all aspects ELA instruction (59 percent), a set of ELA teaching practices are used by all teachers (46 percent), or strategic ELA staffing assignments are based on teacher strengths and student needs (40 percent) were present in all schools.

Louisiana leaders reported significantly higher levels of enabling conditions than Massachusetts leaders (the differences were similar in magnitude between Louisiana leaders and Rhode Island leaders, but the latter difference was not statistically significant because of the smaller number of Rhode Island respondents). The differences between Louisiana leaders and those in the other two states were driven primarily by responses to two questions:

Table 4.10
Percentage of District Leaders Reporting That Grades 6–12 Schools Have Conditions Enabling Coherence

	No Schools Serving Grades 6–12 Students	Some but Not All Schools Serving Grades 6–12 Students	All Schools Serving Grades 6–12 Students
A small number of goals that are tied to student learning	2	17	80
ELA teachers who are identified as, and receive professional development to be, instructional leaders in the school	25	39	36
A set of ELA teaching practices that are used by all teachers	15	38	46
Master schedule allocates sufficient time for all aspects of ELA instruction (e.g., reading and writing)	10	31	59
Strategic ELA staffing assignments that are based on teacher strengths and student needs	17	43	40

NOTES: $n = 140$. Survey question: “What proportion of schools in your school system with students in grades 6 through 12 do, or have, the following?”

- Regarding ELA teachers identified as, and receiving professional development to be, instructional leaders in the school, 93 percent of Louisiana leaders agreed that this happened in some or all schools, versus 69 percent of Massachusetts leaders and 65 percent of Rhode Island leaders.
- Regarding a master schedule that allocates sufficient time for all aspects ELA instruction (e.g., reading and writing), all Louisiana leaders agreed that this was present in some or all schools, versus 86 percent for Massachusetts leaders and 83 percent for Rhode Island leaders.

Most Teachers Indicate Slight to Moderate Levels of Most Enabling Conditions

We surveyed teachers about conditions enabling coherence as well, asking them seven items about the presence of enabling conditions on a scale from 1 (not present at all) to 4 (present to a large extent); the items are shown in Table 4.11 and are drawn from our review of factors associated with the coherence of ELA instructional systems, as shown in Figure 2.1. We also average results across the seven items to create a scale.

Of the seven items, the most commonly reported was goals for student learning that are clear for everyone, which 62 percent of teachers said was present to a moderate or large extent. The least common was leaders who model learning, which only 36 percent of teachers said was present to a moderate or large extent. For the other five items, between 44 and 56 percent of teachers indicated they were present to a moderate or large extent. When we analyzed these seven items as a composite scale, the mean was 2.49 on the 1–4 scale, indicating that the conditions are present to a slight to moderate extent, on average.

There were only three significant differences across groups on the composite scale. First, Louisiana teacher means (2.63) were higher than Rhode Island’s (2.40). Second, teachers with low proportions of SWDs (2.60) reported greater presence of these enabling conditions than those with high proportions of SWDs (2.41). Finally, teachers who used materials rated as

Table 4.11
Percentage of All Teachers Who Report the Presence of Conditions Enabling Coherence

	Not Present	Present to a Slight Extent	Present to a Moderate Extent	Present to a Large Extent
A small number of goals that are tied to ELA student learning	13	31	39	17
Goals for student learning that are clear for everyone	11	27	37	25
A shared purpose that drives action	15	29	37	19
Processes, such as examination of student work, are used to improve practice	17	32	32	19
Leaders who model learning	33	31	26	10
Structures and processes that support educator collaboration	17	39	31	13
A set of teaching practices that are used by all	20	35	30	15

NOTES: $n = 774$. Survey question: "To what extent are the following present in your school to support your ELA instruction?"

standards aligned (2.65) reported greater presence of these enabling conditions than those who did not (2.40).

As with district leaders, we saw quite a lot of variation in teachers' reports of enabling conditions when broken out by item. Of the seven enabling conditions we asked about, more than 60 percent of teachers reported the following two items as present to a moderate or large extent in their schools: having clear student learning goals and using assessment results used to benchmark progress. The greatest barriers to coherence from this scale seem to relate to school leaders and the decisions they make: Almost two-thirds of teachers reported that their school leaders model learning to a slight extent (31 percent) or not at all (33 percent), and most believed that their professional learning improves their practice to only a slight extent (42 percent) or not at all (13 percent). These findings echoed district leaders' relative emphasis on clear learning goals and relative lack of emphasis on providing professional learning to improve instruction. Teachers' perceived lack of modeling and effective professional learning may drive the finding that most teachers felt that their schools have a common set of teaching practices to only a slight extent (35 percent) or not at all (20 percent).

The differences on individual items (not shown in a table) mirror the differences on the overall scale. Rhode Island teachers reported significantly less presence of four enabling conditions than Louisiana teachers (goals for student learning, common teaching practices, processes to improve practice, and assessments used for benchmarking or planning). And teachers with more SWDs reported significantly less presence of three conditions: shared purpose, educator collaboration, and processes to improve practice.

Overall, the results of these analyses indicate that teachers see room for improvement in the conditions enabling coherence, especially for such areas as leader modeling of learning and professional learning designed to improve instruction. Although district leaders reported somewhat greater presence of enabling conditions, it is important to note that, on most items, a majority of district leader respondents indicated that the enabling conditions of coherence were present only in some schools, not all.

Extent of Coherence in Teachers' ELA Instructional System

In this final section, we look across teachers' responses on the alignment of various instructional system components—curriculum, curricular supports, professional learning opportunities, evaluation criteria, and assessments—to infer the degree of coherence that teachers are experiencing in their school-level ELA instructional system. We also consider the presence of conditions that may enable coherence. Together, this speaks to the extent to which teachers are working in a standards-aligned coherent ELA instructional system—or a system with the potential to develop into one.

As a reminder, we carried out this analysis in several steps. First, we created three 1/0 indicators. The first two indicators signal a standards-aligned coherent instructional system; the third indicator captures the presence of enabling conditions. The indicators correspond to the following:

- whether a teacher reported regularly using a standards-aligned curriculum
- whether a teacher reported at least two of the following four factors: receiving at least four of seven possible curriculum-related supports, receiving at least one multiday curriculum-related professional development, having evaluations focused on standards-aligned instruction and supporting diverse students to at least a moderate extent, and having interim assessments at least moderately aligned with other instructional supports
- whether a teacher reported that seven enabling conditions for coherence were present to at least a moderate extent.

Then, we grouped teachers into the eight profiles defined by the intersection of these three 1/0 indicators (see Table 4.12). We report the distribution of teachers overall and also by each of our sample splits. These results are shown in Tables 4.13 and 4.14.

Overall, teachers were spread out among the eight profiles. About one-quarter of the teacher sample fell in profile 8 (which we call “incoherent without enabling conditions,” as it includes none of the three indicators) or in profile 6 (“aligned components only”). The next most common profiles, with about one-eighth of the teacher sample each, were profile 1

Table 4.12
Key for Interpreting Profiles

Profile #	Uses Aligned Materials?	Two+ Aligned Components?	Moderate or Greater Presence of Coherence-Enabling Conditions?	Name of Profile
1	Yes	Yes	Yes	Coherent with enabling conditions
2	Yes	Yes	No	Coherent without enabling conditions
3	Yes	No	Yes	Aligned materials with enabling conditions
4	Yes	No	No	Aligned materials only
5	No	Yes	Yes	Aligned components with enabling conditions
6	No	Yes	No	Aligned components only
7	No	No	Yes	Incoherent with enabling conditions
8	No	No	No	Incoherent without enabling conditions

Table 4.13
Percentage of Teachers in Who Fall into Each Profile, by State, Grade, and Materials Alignment

Profile #	Profile Description (see Table 4.11 for full definitions)	Overall	State			Grade Band			Curriculum Materials	
			Louisiana	Massachusetts	Rhode Island	Elementary School	Middle School	High School	Standards Aligned	Not Standards Aligned
1	Coherent with enabling conditions	14	33*	1*	7*	14	11	18	40	0
2	Coherent without enabling conditions	16	34*	4*	10*	17	17	12	44	0
3	Aligned materials with enabling conditions	0	1	0	1	0	0	0	1	0
4	Aligned materials only	5	10*	1*	8*	6	2	6	14	0
5	Aligned components with enabling conditions	15	6*	22*	11*	16	16	10	0	23
6	Aligned components only	27	11*	38*	33*	30*	23*	14*	0	42
7	Incoherent with enabling conditions	2	1	2	4	1*	4*	4*	0	3
8	Incoherent without enabling conditions	21	4*	32*	26*	15*	27*	36*	0	32

NOTES: All values are rounded to the nearest percentage. About 3.5 percent of teachers do not have the data to be assigned to a profile.

* Statistically significant differences at $p < 0.05$ between corresponding groups (e.g., the proportion of teachers who fit profiles 3 and 7 does not significantly differ by state, but all other profiles do).

Table 4.14
Percentage of Teachers Who Fall into Each Profile, by Student Demographics

Profile #	High EL	Low EL	High SWD	Low SWD	High SoC	Low SoC	High Below Grade Level	Low Below Grade Level	High Low Income	Low Low Income
1	15	14	14	15	23*	11*	16	14	22*	9*
2	14	17	13	19	23*	13*	16	16	25*	10*
3	1	0	0	1	1	0	0	1	1	0
4	7	4	4	6	7	4	4	5	7	4
5	17	14	10*	21*	11	16	16	15	10*	18*
6	21	30	32*	21*	18*	31*	30	26	18*	33*
7	2	1	2	1	2	1	0	2	1	2
8	23	20	24	16	16	23	19	21	16	23

* $p < 0.05$ (denotes a statistically significant subgroup difference).

(“coherent with enabling conditions”), profile 2 (“coherent without enabling conditions”), and profile 5 (“aligned components with enabling conditions”). The other three profiles were rarer.

These overall results suggest that very few teachers (just 14 percent) were in schools that demonstrated a high degree of coherence supported by enabling conditions. In fact, it was 50 percent more likely for a teacher to have none of the three indicators (profile 8) than to have all of them (profile 1). Combining profiles 1 and 2, however, suggests that, disregarding the presence of enabling conditions, about a third of teachers were in schools with standards-aligned coherent instructional systems. We also saw that the presence of enabling conditions was associated with greater presence of the elements of coherence—for teachers who reported the presence of enabling conditions (profiles 1, 3, 5, 7), they had on average 1.39 of the two coherence indicators, as compared with just 0.93 of those indicators for teachers who did not have enabling conditions (profiles 2, 4, 6, 8). And if enabling conditions indeed function as hypothesized, then 17 percent of teachers (profiles 3, 5, and 7 combined) work in schools with the potential to develop into such a system.

There were pronounced and statistically significant differences across groups, as noted in Table 4.13. Because such a large number of differences were statistically significant, we do not discuss every difference in the text.

Teachers differed tremendously across states in their profiles of instructional system coherence. About 68 percent of Louisiana teachers reported having the first two indicators (representing a standards-aligned coherent system) or all three indicators (profiles 1 and 2 combined), as compared with about 5 percent of Massachusetts teachers and about 17 percent of Rhode Island teachers. About a quarter of Rhode Island teachers (26 percent) and a third of Massachusetts teachers (32 percent) reported having zero of the three indicators (profile 8), versus just 4 percent of Louisiana teachers. Clearly, teachers in Louisiana reported teaching in systems that show evidence of far greater coherence.

In terms of levels, elementary teachers were less likely (15 percent) to report having zero of three indicators (profile 8) than middle (27 percent) or high school teachers (36 percent). There were also some significant grade-level difference on profiles 6 and 7.

Finally, in terms of classroom groups, teachers with higher numbers of low-income students and SoCs were more likely to have favorable profiles of coherence (profiles 1 and 2) and less likely to have profile 6 (aligned components only), based on their survey responses—this is likely driven by access to standards-aligned curriculum materials (see Table 3.4). In contrast, teachers of high numbers of SWDs are significantly more likely to have profile 6 and less likely to have profile 5 than teachers with lower numbers of SWDs.

Conclusion

This report set out to investigate the coherence of teachers' instructional systems using state-representative samples of teachers and smaller samples of district leaders across three states: Louisiana, Massachusetts, and Rhode Island. By *coherence*, we mean the extent to which key system components related to teaching and learning are consistent with each other (or reinforce each other) and all provide the same signals and supports to teachers and leaders about what instruction should look like. In our results, we first examined the alignment of curriculum to standards. Then, we examined four components of instructional systems we hypothesized as key to supporting instructional coherence for their alignment to standards or the curriculum: curriculum-related resources (e.g., lesson plans, pacing guides), professional development, teacher evaluation, and student assessments. We used these findings to build a measure of the overall extent of coherence in teachers' ELA instructional systems. We inferred that a system is coherent if its curriculum aligns with standards and, in turn, other system components (e.g., instructional resources, professional learning, teacher evaluation, student assessments) align with or support that curriculum. The assumption is if the components all align with the same curriculum, they are coherent with each other (i.e., sending the same message, emphasizing the same content or strategies). We also considered the presence of conditions that we hypothesized enable coherence.

Although these findings are all based on self-report and, thus, as noted in our methods, will need to be triangulated and examined more closely through other work, we did identify some trends that will be useful for researchers and policymakers to consider as they reflect on areas in which teachers experience less alignment with standards and with their curriculum, because such components may need particular attention as schools seek to develop a coherent instructional system in which to provide standards-aligned teaching and learning. We provide here a brief summary of our key findings.

Standards-aligned curriculum: Most teachers did not report using a standards-aligned curriculum materials, with the exception of teachers in Louisiana. Teachers in schools with more SoCs were more likely to use standards-aligned materials. When asked, teachers generally agreed that their main materials were coherent with other policy documents, such as standards and assessments.

Curriculum-related resources: Most teachers reported receiving many instructional resources to support their ELA curriculum use, particularly at the elementary level.

Curriculum-specific professional learning: Teachers were frequently offered participation in PLCs but rarely offered training on (i.e., coherent with) their curriculum. On average, teachers were only moderately positive about the effectiveness of the professional learning they receive that is focused on curriculum.

Standards- and curriculum-aligned teacher evaluation criteria: According to teachers, their evaluation criteria are focused on standards-aligned instruction, following curriculum guidance, and meeting the needs of low-achieving students and SWDs.

Standards- and curriculum-aligned assessments: Most district leaders and teachers reported that their interim or benchmark assessments are aligned with the content of their ELA standards, summative assessments, and curriculum materials.

Conditions supporting coherence: Teachers indicated moderate presence of hypothesized conditions that enable coherence, particularly having clear student learning goals and using assessment results to benchmark progress.

Overall trends in coherence: Teachers differed tremendously by states in their ELA instructional systems, with teachers in Louisiana reporting teaching in systems that show evidence of far greater evidence of coherence. In addition, we had greater evidence of *incoherent* instructional systems for teachers serving more SWDs and for middle and high school teachers, compared with their elementary counterparts. Interestingly, we also saw greater evidence of incoherent instructional systems for teachers serving fewer SoCs or low-income students, which is likely driven by higher use of standards-aligned materials by teachers serving these populations.

Our results led us to reach five broad conclusions.

Conclusion 1: Few teachers appear to be teaching in coherent instructional systems.

Evidence suggests that teachers lack coherence in their instructional systems. Only 30 percent of the teachers in our sample (profiles 1 and 2 combined)—mostly from Louisiana—had two indicators of coherence: using a standards-aligned material and having two of four aligned components. Over a quarter (28 percent) of the schools in which the sampled teachers worked lacked more than two of the aligned components (profiles 3, 4, 7, and 8 combined). Teachers in high and middle schools were especially likely to lack any indicators of coherence. Enabling conditions of coherence were also generally lacking. More than two-thirds of teachers (69 percent) taught in schools without substantive presence of conditions that support the development of coherence (profiles 2, 4, 6, and 8 combined). Overall, only 14 percent of teachers taught in a standards-aligned coherent system that also has enabling conditions (profile 1). In fact, about 50 percent more teachers had none of our three indicators (profile 8) than had all of them (profile 1).

Conclusion 2: State policy is likely an important factor driving the coherence of instructional systems. Previous research discusses evidence that Louisiana’s policy reforms are driving instructional policies and practices in desirable ways (Kaufman et al., 2016; Kaufman et al., 2020). This report provides further suggestive evidence that Louisiana’s reforms are promoting coherent instructional systems. Louisiana teachers were substantially more likely than Massachusetts or Rhode Island teachers to report having two or three indicators of coherent instructional systems. Louisiana teachers were more likely to report using standards-aligned materials and receiving more curriculum-oriented professional development, and they were more likely to report greater alignment of interim assessments with other policy features and greater presence of enabling conditions than teachers in the other two states. These results suggest that state departments of education likely have some ability to drive greater coherence, both in terms of the components of instructional systems we studied and the enabling conditions that support coherence. At the same time, numerous contextual factors may be related to state policies supporting coherence, including previous policies, presence of strong unions, culture of local control, and decentralized school policies. Thus, although we believe that it is

possible for many states to adopt similar reforms to those in Louisiana, they might encounter obstacles or challenges that Louisiana state officials did not encounter.

Conclusion 3: Teachers of more SWDs report less coherent instructional systems.

Across several of the indicators, there were differences in teacher reports of coherence according to the students they serve. In general, teachers of more SWDs reported less coherent instructional systems. They reported a lower quantity of professional learning and that the professional learning they did receive was less helpful. They also reported less presence of enabling conditions of coherence. When we grouped teachers by profile, teachers of more SWDs were more likely to be in a profile group having one indicator of coherence and less likely to be in a profile group having two indicators than teachers teaching fewer SWDs. There were also differences based on other student characteristics or class composition, but the patterns of difference were not as clear as those based on proportion of students in class with disabilities. These findings are particularly concerning given that teachers of SWDs likely face more challenges in providing standards-aligned instruction than other teachers. These teachers need more support to implement standards-aligned curriculum, not less. Thus, these findings should underscore the need for states, districts, curriculum providers, and professional development providers, among others, to ensure that teachers of SWDs are getting ample support and guidance.

Conclusion 4: Teachers with more low-income students and SoCs report more-coherent instructional systems. Teachers serving more than 75 percent low-income students (based on free or reduced-priced lunch measures) and with more than 50 percent SoCs were more likely to report coherent instructional systems and conditions supporting coherence than their counterparts in higher-income and more-White schools. This finding does suggest that states may be exerting more pressure on schools with these underserved populations to be more coherent, in terms of use of standards-aligned curriculum materials and other aligned aspects of instructional systems. In subsequent reports, we will more deeply examine all the supports these teachers are receiving and, particularly, which supports appear most closely related to students' ELA achievement.

Conclusion 5: District leaders are often more favorable about their instructional systems than teachers are. On most items for which we asked both district leaders and teachers, district leaders reported more-positive views of instructional components than teachers did. Leaders reported greater access to standards-aligned curriculum materials, greater quantities of professional learning, stronger alignment of interim assessments to other policy instruments, and greater presence of enabling conditions (especially a small number of goals tied to student learning) than did teachers. Although we cannot directly compare teachers and leaders within the same district given the nature of our data, these results suggest that districts should consider reaching out to and surveying teachers—perhaps in an anonymous way to ensure honest responses—to get a clear picture of coherence across systems.

Together, these results point to the need for continued work to support the development of coherent instructional systems in ELA, especially for teachers of some of the most-vulnerable students. State policy matters, and states seeking to improve instructional coherence might look to Louisiana's efforts for guidance. But even in the presence of tremendous state effort, there is much to be done if we want all students to be in schools that are supported by coherent instructional systems.

On the research side, several further investigations are warranted. First, we recognize that this report does not address all relationships among instructional components within our conceptualization of coherence or all the levels of the system. Second, we hypothesize

that the presence of enabling conditions supports the development of coherence; however, further work is needed to establish directionality. Perhaps deep examination of schools with contrasting profiles (with and without enabling conditions) over time could help to this end. Finally, examining the relationship among coherence (or profiles of coherence) and teaching quality and student achievement would make a significant contribution to the field by helping substantiate—or question—the theory that coherence in fact leads to improved teaching and learning

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Abbreviations

ATP	American Teacher Panel
CCR	college- and career-ready
EL	English learner
ELA	English language arts
IEP	Individualized Education Program
PLC	professional learning community
SoC	student of color
SWD	student with disabilities

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