AMBITIOUS LEADERSHIP: HOW PRINCIPALS LEAD SCHOOLS TO COLLEGE AND CAREER READINESS
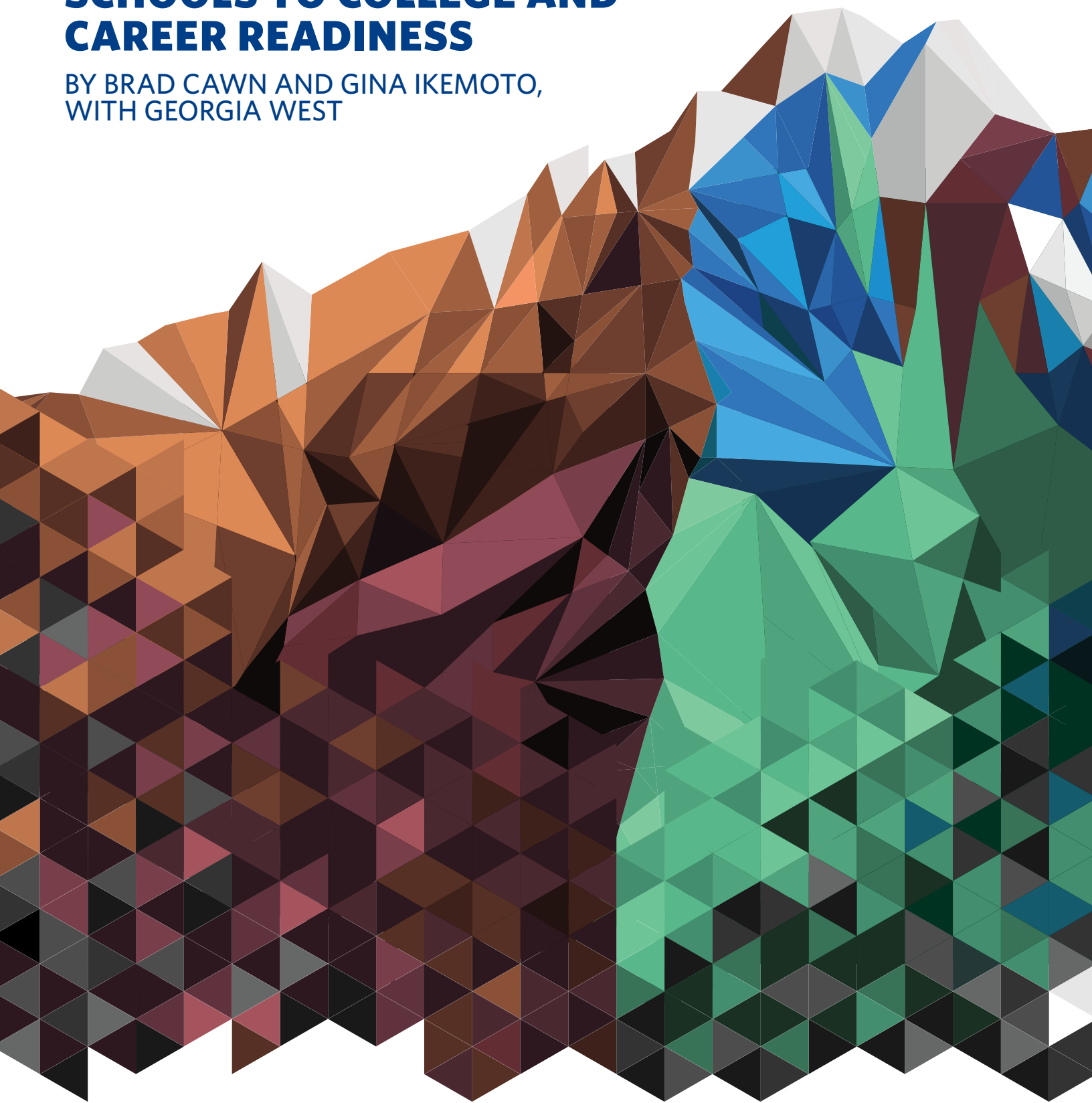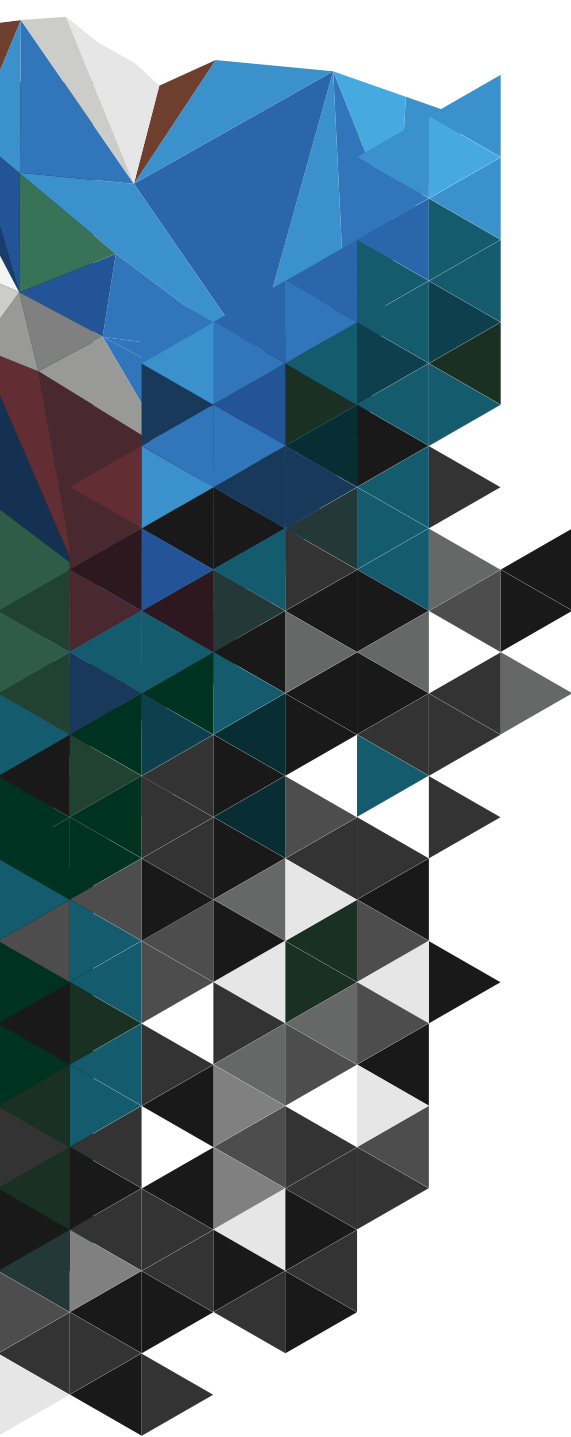
BY BRAD CAWN AND GINA IKEMOTO, WITH GEORGIA WEST

New Leaders
LEADERSHIP CHANGES EVERYTHING

AMBITIOUS LEADERSHIP: HOW PRINCIPALS LEAD SCHOOLS TO COLLEGE AND CAREER READINESS

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INTRODUCTION

"We were a high-performing school. Now we're not." These words — spoken in 2015 by the head of a respected network of "no-excuses" charter schools — could have come from any number of school leaders across the country as they adjusted to the "skyrocketing"[1] demands of new college-and-career-ready (CCR) standards. The standards — and their respective assessments, such as the Smarter Balanced (SBAC) and PARCC exams — have revealed a yawning gap between what students need to know and be able to do to succeed in college and beyond, and how schools are currently preparing them. To succeed in this new environment, students must be able to read grade-level texts independently and fluently, to write analytically, to evaluate and build on ideas, and to solve complex problems by flexibly applying mathematical concepts. These higher expectations demand a more challenging curriculum, more sophisticated instruction, and more intensive instructional supports.

Though districts, schools, and educators have tried to meet these more rigorous demands, the response thus far has been insufficient. In 2015, when many states administered CCR standards–aligned tests for the first time, the number of students demonstrating proficiency declined sharply, and achievement gaps for low-income students became even more glaring. In states that introduced PARCC tests in 2015, for example, only 16 percent of low-income students — and 27 percent of *all* students — met eighth grade math standards. In 2016, progress was inconsistent at best. Teachers report feeling overwhelmed by the challenges of implementing CCR standards, and studies confirm that few are teaching at the level they require.[2] Meanwhile, educators are not receiving the kind of professional development that would help them make key changes,[3] and political backlash to the Common Core is distracting some districts and schools from the hard work of implementing curriculum and instruction that would support students in reaching a higher academic bar.[4]

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1 Peterson, P. E., Barrows, S., & Gift, T. (2016). After Common Core, states set rigorous standards. *Education Next*, 16(3).

2 Santelises, S. B., & Dabrowski, J. (2015). *Checking in: Do classroom assignments reflect today's higher standards?* Washington, D.C.: Education Trust.

3 Kaufman, J. H., Hamilton, L. S., Stecher, B. M., Naftel, S., Robbins, M., Thompson, L. E., . . . Opfer, V. D. (2016). *What supports do teachers need to help students meet Common Core State Standards for English language arts and literacy? Findings from the American Teacher and American School Leader Panels.* Santa Monica, CA: RAND Corporation.

4 Hanushek, E.A. (2012). Is the Common Core just a distraction? *EducationNext*. Cambridge, MA: President & Fellows of Harvard College.

In the face of these challenges, one truth is incontestable: Strong school leadership is essential. As the primary culture builders, talent managers, and instructional leaders at their schools, principals are the linchpin to successful implementation of any school improvement initiative.[5] But the transition to CCR standards has been a challenge even for the most dedicated and talented of our nation's principals, as they grapple with how to improve the instructional core of pedagogy, teaching materials, and student tasks.

The stakes could not be higher. American students will increasingly compete with individuals from around the globe for jobs and other resources. It is a formidable landscape that students can only navigate with a strong core of knowledge and the ability to draw upon and apply this knowledge from one domain to another. They must be able to think carefully, critically, and creatively as they face new circumstances and adapt to new challenges. While steep declines on CCR-aligned tests were not unexpected, they nevertheless make clear that initial efforts to prepare students for this changing world have been too timid. Purchases of materials marketed as CCR-aligned were too hasty; professional development for teachers too cursory; and upgrades to instructional plans insufficiently comprehensive. Moving all students toward college and career readiness calls for an entirely new level of sustained and focused effort.

A Note on the College-and-Career-Ready Standards

The findings in this report are relevant for schools located in any state that has adopted more rigorous college-and-career-ready standards, including the Common Core State Standards. For this reason, we utilize the term *college-and-career-ready* or *CCR* when referring to the standards in this report. However, the schools from which we draw our findings are all located in Common Core states. Therefore, we often refer specifically to the Common Core State Standards when we describe details from our sample schools.
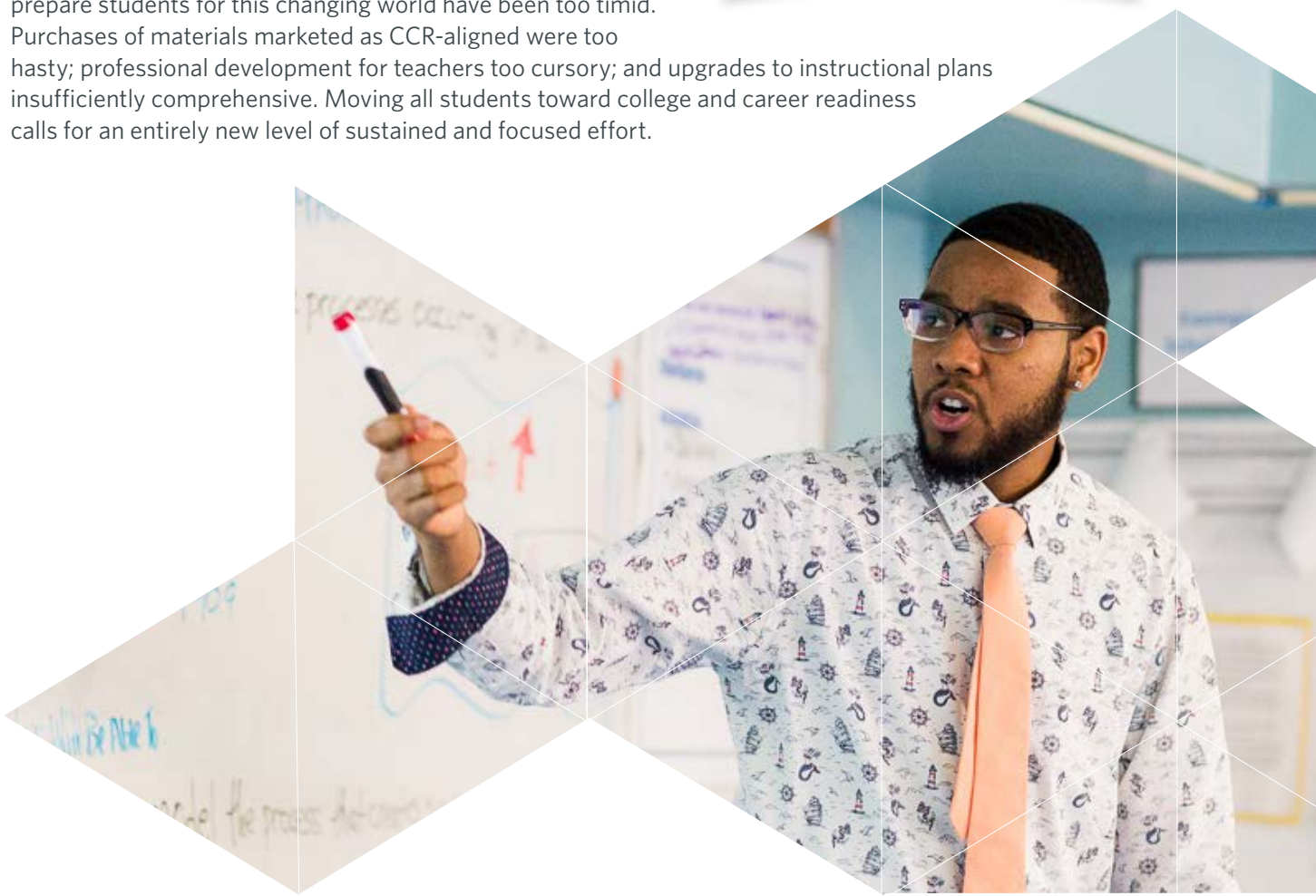
5 Ikemoto, G., Taliaferro, L., & Adams, E. (2012). *Playmakers: How great principals build and lead great teams of teachers.* New York, NY: New Leaders.

AMBITIOUS INSTRUCTIONAL LEADERSHIP

For principals, the good news is that this work does not require a radical reinvention of their role. Rather, it calls for a deep understanding of what the standards are and what they are asking of students and teachers, along with a much more *intensive* and *intentional* approach to instructional leadership. It calls for putting forth an instructional vision that is aspirational yet concrete enough to shape classroom practice; creating regular opportunities for teachers to study the standards and develop coordinated strategies for addressing them; and consistently monitoring instruction to ensure that teachers push students to think, speak, and write deeply and analytically.

In the past, a thorough but straightforward approach to skills-based, data-driven instruction was often sufficient to help students master the skills that state tests assessed. Many schools raised student proficiency rates by administering regular formative assessments and providing support on the discrete skills with which students struggled. But the CCR standards and their aligned exams ask more of schools and students. They demand that students read, comprehend, and analyze increasingly complex literary and informational texts, and they pose multistep problems in pure and applied mathematics, requiring creative use of knowledge and problem-solving strategies. To meet today's college-and-career-ready expectations, students must know, for example, how to analyze a poem — to determine the author's intent and to find the "deeper meaning." They must know how to interpret a word problem and identify the best computational strategy for solving it. They must know how to develop well-supported arguments and to think and analyze flexibly and independently. In this report, we refer to the kind of curriculum and teaching that supports students in developing these capabilities as "ambitious instruction."[6]

But there is a catch. Delivering ambitious instruction demands a degree of pedagogical and content expertise that prior standards did not. Many educators did not learn this way themselves. They did not participate in Socratic discussions aimed at unveiling layers of meaning in a literary text. They learned arithmetic and multiplication the old-fashioned way — with a standard algorithm that they practiced until it stuck. To make this shift in schools and ensure that ambitious instruction is taking place in every classroom, we need **ambitious instructional leadership:** leadership that intensively and intentionally attends to all facets of learning, from staffing and professional development to curriculum development, assessment design, and lesson planning. In this report, we describe the practices that distinguish ambitious instructional leadership, and why it represents the next generation of learning-focused leadership.

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6 We use the term *instruction* to indicate all strategies that shape students' learning experiences, including scope and sequence, choices about curriculum and learning materials, tasks, and pedagogy. Research on instruction has used the term *ambitious instruction* to connote a level of teaching and learning that is not merely evidence-based and standards-aligned but also potentially transformative — that is, powerful enough to overcome even the most persistent challenges facing students. Such teaching is marked by the engagement of all students; a focus on the key disciplinary ideas, problems, and processes of a given subject area; the prioritization of reasoning, argumentation, and reflection as the essential processes and products of academic work; and responsiveness to students' learning *during* learning.

For more on ambitious instruction, see: Lampert, M., & Graziani, F. (2009). Instructional activities as a tool for teachers' and teacher educators' learning. *Elementary School Journal*, 109(5), 491–509; McDonald, M., Kazemi, E., & Kavanagh, S. S. (2013). Core practices and pedagogies of teacher education: A call for a common language and collective activity. *Journal of Teacher Education*, 64(5), 378–386; Windschitl, M. (2009, February). *Cultivating 21st century skills in science learners: How systems of teacher preparation and professional development will have to evolve*. Paper presented at the National Academies of Science Workshop on 21st Century Skills, Washington, D.C.

ABOUT THE STUDY

Despite the vital role of principals in leading reforms to instruction at the school level, the field lacks examples of principals who have begun to make progress in helping students meet CCR standards. With support from the Bill & Melinda Gates Foundation, New Leaders set out to find those exemplary leaders and share detailed information about how they went about the reform process. We asked:

1. What do principals need to know and do to effectively lead to higher standards?

2. What factors enable or hinder principals in leading to higher standards?

To answer these questions, we identified a set of urban schools that were outpacing their district or state peers, either in absolute proficiency or in student progress on CCR standards–aligned state assessments.[7] Upon observing ongoing efforts at these schools, we found that the work of adapting to CCR standards was by no means complete; in fact, in many ways, it was just beginning. As we observed the complexities of leading in the age of CCR standards, we learned about the immense knowledge — of instruction, leadership, and the standards themselves — that principals must master to advance change. We also learned how important it is for educators to build their knowledge *in and through practice*: By making concerted, school-wide efforts to select and align curriculum and instruction to the new standards, educators simultaneously deepened their expertise and grew their capacity to deliver instruction that supports the standards. We found no single "best practice" among principals at these schools. We did find a consistent set of key practices, however, that appeared central to their success in leading CCR-focused school-wide improvement.

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7 See Appendix B for more information on selection criteria and school sample characteristics.

ABOUT THE METHODOLOGY

How We Selected Schools

To identify schools that met the criteria listed in Appendix B, we reviewed demographic and student achievement data from all K-12 public schools in six urban districts and the California schools of one charter management organization. We conducted interviews with the principals of 22 of these schools, soliciting their perspective on the factors informing their school's growth and probing their knowledge and beliefs about CCR standards. We then reviewed the transcripts of all interviews, publicly available assessments of school quality (e.g., a district's annual school quality review or survey), and input from personnel in the district or charter management organization to identify interviewees. Ultimately, we selected 10 schools: one K-3 school, four K-5 schools, one K-8 school, three middle schools, and one high school (see Appendix B for more details regarding sample schools).

Data We Collected

Interviews, observations, and data collection occurred over the course of the 2015–16 school year, including one- or two-day site visits to the 10 schools selected and pre- and post-visit interviews. We completed 45 in-depth interviews with 22 principals; 25 in-depth interviews with former or current supervisors of these principals; 14 in-depth focus groups with teachers; and 31 additional interviews with various stakeholders across the 10 schools, including administrators, support staff, individual teachers, and parents.

During the site visits, we conducted observations of over 50 math and English language arts classes, and more than 30 teacher professional development events. More than 100 documents — including artifacts of the schools' curricula and instruction and their school improvement plans — were collected during or after observations at each school to clarify and provide further insight into key school practices and principles.

How We Analyzed the Data

To identify patterns and generate conclusions, we studied the data we collected on two levels: by school and across schools. We triangulated data sources to create a rich portrait of each school, which became the basis of our case studies.

We then looked for patterns, using our findings on each school to construct a set of data tables on leadership practices, programming features, the quality of instruction and curriculum, types of knowledge, and factors that enabled implementation. These tables allowed us to make comparisons between the schools, which then enabled a set of initial claims about the critical knowledge and practices necessary to meet the demands of CCR standards. We used a method known as qualitative comparative analysis[8] to assess the strength of the evidence in support of these claims. The data from those schools with strong evidence were examined further to identify evidence and illustrative examples for this report.

Limitations

Though we did find a consistent set of key practices, we want to make clear the limitations of the study so that our findings can be interpreted appropriately.

First, the sample size was small. We targeted study resources toward collecting detailed and extensive evidence of practice from a small number of schools, as opposed to cursory information from a broader set of schools.

Second, selection was based on results from a snapshot in time. When data were available, we used two years or more of results, but some schools had only one year of data demonstrating their ability to beat the odds on CCR standards–aligned assessments.

Third, much work remained for the schools in our sample to prepare all students for college and careers. We selected schools with student populations that were majority low-income and black or Hispanic and that had demonstrated above-average gains and/or proficiency rates on CCR assessments compared with their state and district. Most schools in our study, however, had low absolute proficiency rates, below 60 percent.

Finally, while the study did include one comprehensive high school, many of our secondary schools were small schools. This limited our ability to find trends in how leadership differed at large secondary schools.

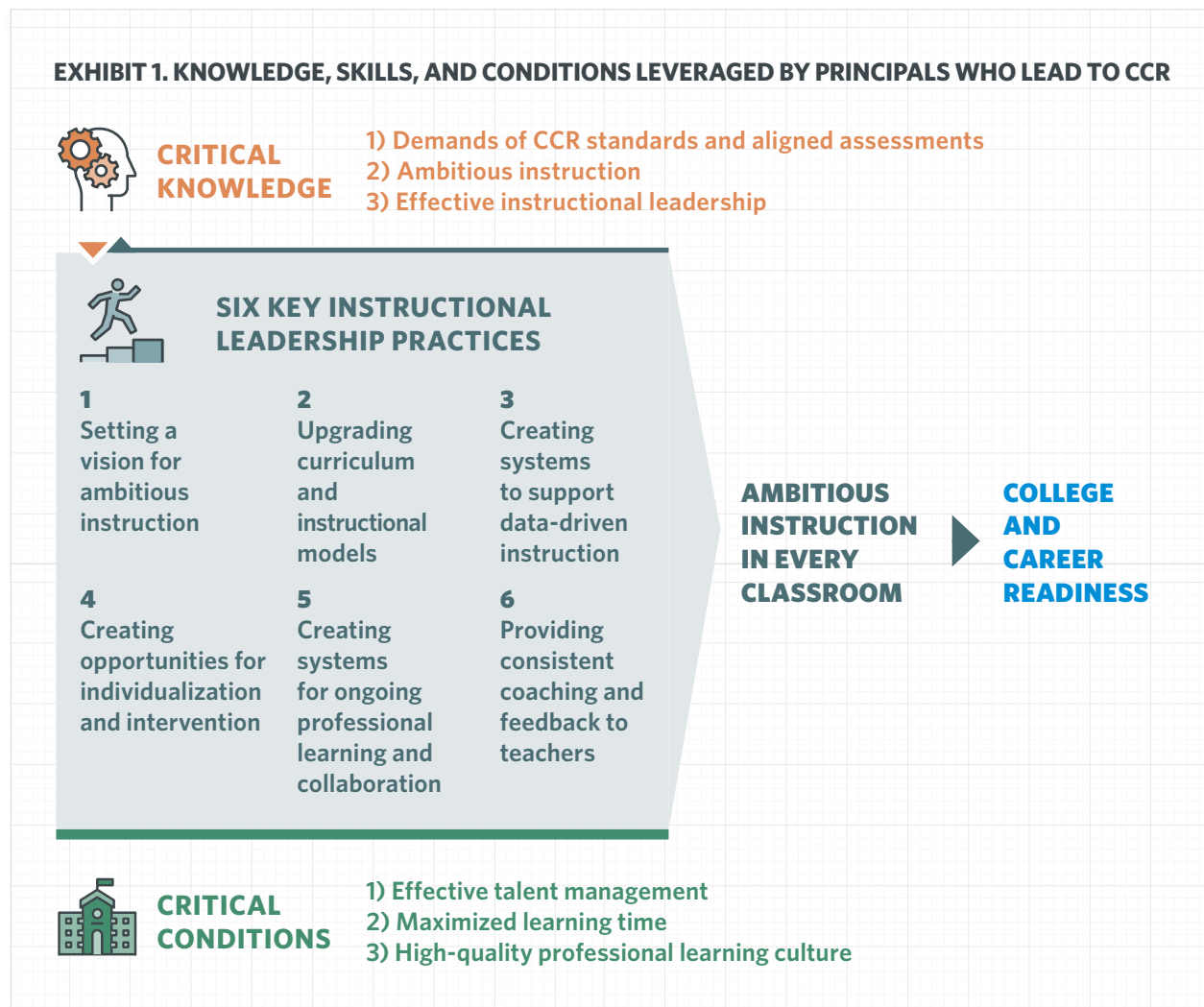In sum, the purpose of this research is not to provide a rigorous comparative analysis, but to provide rich details from case studies that can serve as a guide to principals seeking to align their work to the demands of CCR standards.

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8 Rihoux, B., & Ragin, C. C. (2009). *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques.* Sage: Los Angeles.

PREVIEWING THE FINDINGS

School leadership is complex and multifaceted: It involves not only direct instructional leadership but also establishing cultures, systems, and structures that support ongoing instructional improvement. In our research, therefore, we examined three core facets of school leadership at our chosen schools: conditions (vision, personnel, and communication), systems and structures (professional development, data, and accountability), and the instructional core (curriculum, pedagogy, student learning, and assessments).

The diagram below illustrates our findings regarding: (1) what principals did; (2) what principals needed to know; and (3) critical conditions that enabled their work to lead schools to college and career readiness. The diagram also conveys how these domains interacted and reinforced one another.

EXHIBIT 1. KNOWLEDGE, SKILLS, AND CONDITIONS LEVERAGED BY PRINCIPALS WHO LEAD TO CCR

CRITICAL KNOWLEDGE
1) Demands of CCR standards and aligned assessments
2) Ambitious instruction
3) Effective instructional leadership

SIX KEY INSTRUCTIONAL LEADERSHIP PRACTICES

1 Setting a vision for ambitious instruction

2 Upgrading curriculum and instructional models

3 Creating systems to support data-driven instruction

4 Creating opportunities for individualization and intervention

5 Creating systems for ongoing professional learning and collaboration

6 Providing consistent coaching and feedback to teachers

AMBITIOUS INSTRUCTION IN EVERY CLASSROOM

COLLEGE AND CAREER READINESS

CRITICAL CONDITIONS
1) Effective talent management
2) Maximized learning time
3) High-quality professional learning culture

What did principals do? Principals implemented a set of **six key instructional leadership practices**:

- setting a vision for ambitious instruction;
- upgrading curriculum and instructional models;
- creating systems to support data-driven instruction;
- creating opportunities for individualization and intervention;
- creating systems for group professional learning and collaboration; and
- providing consistent coaching and feedback to individual teachers.

While these practices are not entirely new — prior research has identified them as hallmarks of effective instructional leadership[9] — what distinguished the principals we observed was their recognition that the new expectations called for enactment of these practices at a far more rigorous level. These principals carried out key instructional leadership practices more frequently, with greater consistency, and with a more intensive focus on the instructional core. (See inset for dimensions of rigor that distinguished the six key instructional leadership practices we observed.)

What did principals know? Principals drew on **three types of critical knowledge** to enact ambitious instructional leadership. They understood (1) the demands of CCR standards and assessments, (2) ambitious instruction, and (3) effective leadership. This knowledge was not fixed. A certain level of critical knowledge in these areas prompted and enabled the enactment of the key leadership practices at a more rigorous level (and, indeed, was a key dimension of rigor we observed in ambitious instructional leadership practices). At the same time, this knowledge grew through enactment of the practices. For example, principals often significantly deepened their knowledge about the demands of the CCR standards alongside their teachers during the process of collaboratively studying the standards to upgrade curriculum and instructional models.

What enabled principals' work? When **three critical conditions** (related to staffing, schedules, and culture) were firmly in place, principals were able to more quickly and rigorously implement key practices focused on improving the instructional core. For example, principals could quickly and productively lead teachers in a collaborative process of upgrading curriculum when there was a trusting professional learning culture in which teachers pushed each other and themselves to improve.

We elaborate on our findings in these three domains in the following sections of the report. We also describe three stages in the journey toward improving student preparedness for college and careers, and offer a set of recommendations for principals based on where they are in that journey, and for district leaders and others who support school leaders.

Dimensions of Rigor That Distinguished Ambitious Instructional Leadership Practices

- **Informed by critical knowledge:** Practices were informed by principals' knowledge of CCR standards, ambitious instruction, and effective approaches to instructional leadership (e.g., fostering buy-in, creating systems for building staff capacity).

- **Intensity:** Practices were carried out with significant frequency and consistency, and principals increased the amount of time and/or staff they apportioned to instructional leadership to facilitate this level of intensity (e.g., increasing the number of coaches providing feedback, or the frequency of feedback).

- **Quality:** Practices were research-based (e.g., feedback on instruction was specific and included actionable steps teachers could use immediately to improve instruction).

- **Intentionality:** Practices focused on achieving clearly defined, standards-aligned outcomes related to the instructional core (e.g., increasing the depth and rigor of teacher questioning, or facilitating student discussion to advance conceptual math understanding).

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9 Desravines, J., Aquino, J., & Fenton, B. (2016). *Breakthrough principals: A step-by-step guide to building stronger schools.* New York, NY: Jossey-Bass.

CRITICAL KNOWLEDGE FOR PRINCIPALS

Our research suggests that what principals must know and be able to do in regard to the instructional core has increased dramatically. Prior to the introduction of CCR standards, principals could get by with a solid understanding of popular approaches to curriculum and pedagogy. However, for the new generation of assessments, such as the SBAC and PARCC exams, the only effective preparation is a challenging, well-designed curriculum and strong teaching. Unsurprisingly, our findings suggest that principals who were successfully advancing student mastery of CCR standards possessed three critical bodies of knowledge related to standards-aligned curriculum and instruction. Specifically, they (1) had a deep grasp of the demands of CCR standards and aligned assessments; (2) understood — in a detailed and concrete way — the components of ambitious instruction that could support students in developing the necessary capabilities; and (3) had command of instructional leadership "best practices," such as building buy-in and teacher capacity to enact more rigorous pedagogical practices.[10]

THE DEMANDS OF CCR STANDARDS AND ALIGNED ASSESSMENTS

The principals we observed had studied the CCR standards and had a high-level understanding of the major shifts from previous standards.[11] They understood what students needed to know and be able to do in each grade, and how these expectations progressed across grades. These principals had also closely analyzed their states' new assessments. They knew the types of questions on the assessments, how their rigor compared with what the school asked of students, how the demands of the assessments differed from prior ones, and their technological requirements. Importantly, these principals also recognized what they and their staff *did not* know, and constantly sought out information and learning opportunities to fill gaps in expertise about the standards and standards-aligned curriculum and instruction.

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10 See Appendix A for more examples of knowledge requirements and suggested knowledge resources.
11 For English language arts shifts, see http://www.corestandards.org/other-resources/key-shifts-in-english-language-arts/. For math shifts, see http://www.corestandards.org/other-resources/key-shifts-in-mathematics/.

This depth of understanding allowed principals to identify and address missing pieces in curriculum and instruction, and informed the intensity of their instructional leadership practices. For example, they understood each grade's expectations for text complexity and recognized when teachers were centering lessons on insufficiently challenging texts. This recognition prompted them to initiate a collaborative curriculum-revision process to determine appropriate texts, and to focus teacher coaching on classroom strategies designed to help students engage with the more challenging content. Importantly, while the principals' knowledge of the standards shaped their instructional leadership practices, enactment of the instructional practices also served to continually deepen the principals' and their staff members' knowledge of the standards.

AMBITIOUS INSTRUCTION

Principals possessed a deep knowledge of ambitious instruction, which informed the kind of professional development, coaching, and feedback they provided for their staff. This knowledge included understanding the fundamentals of effective teaching, such as strong lesson and unit sequences; effective direct instruction, such as modeling and communication of complex ideas; appropriate balancing of direct instruction with academic discussion; and task rigor. It also included an understanding of CCR-aligned instructional shifts. For example, principals understood how to lead student discussions that were grounded in evidence and advanced inferential skills; how to scaffold conceptual math learning so that it informed computational fluency rather than confounding it; and what writing across content areas should look like. They also understood that CCR standards called for a unit-planning approach rather than an individual-lesson-planning approach in order to ensure students had opportunities to continuously revisit and build upon existing skills and knowledge. Finally, principals were able use the standards to evaluate the strengths and weaknesses of various curricula and instructional approaches, so they could lead their school in considering and/or committing to an approach they found to be aligned to the demands of the standards and the needs of their school.

EFFECTIVE INSTRUCTIONAL LEADERSHIP

The principals we observed had a strong understanding of effective instructional leadership practices, which they drew upon to build a culture and structures for continuous learning. They knew how to diagnose gaps between what their school was doing and what it needed to do to support students in meeting higher demands, and they were familiar with effective approaches to building teacher capacity. For instance, they knew how to set up systems and structures that enabled teachers to learn from implementation, such as creating regular times to visit classrooms with teacher leaders or coaches, and following up with a meeting to assess the instruction they observed and help them construct effective feedback to support improvement. Finally, principals understood the importance of belief-based and goal-driven leadership. They knew how to build buy-in and urgency among stakeholders, and they had a firm grasp of adaptive leadership strategies for managing change.

KEY INSTRUCTIONAL LEADERSHIP PRACTICES

Drawing continuously upon these three domains of critical knowledge, the principals we observed enacted the six key instructional leadership practices to move toward ambitious, CCR-aligned instruction in every classroom. These leadership practices were not, in essence, new; they have long been identified as critical components of effective school leadership.[12] What set these practices apart at the schools we studied was the level of rigor (e.g., frequency, consistency, quality) and intentionality (e.g., informed by a clear instructional vision and alignment to CCR standards) with which principals enacted them.

KEY PRACTICE #1:
SETTING A VISION FOR AMBITIOUS INSTRUCTION

Researchers have long recognized that a key action for principals is establishing a shared vision for their school.[13] What distinguished the principals in our study was that they set a vision not only for the school as a whole but also specifically for the quality and rigor of its instructional programming. Principals conveyed a vivid and inspiring image of the learning experiences that would prepare students to succeed in college and careers, including the best approaches to pedagogy along with the best types of curricular materials, tasks, and interventions. These principals articulated how and why their instructional approach would help students achieve success not only in the next level of schooling but also in college, careers, and beyond.

Principal Jamaal Bowman, for example, described the vision of his school, Cornerstone Academy for Social Action, thus: "We want our students to be future leaders, future designers, and future engineers, so our expectations are rooted in our goal of preparing students to change the world." Bowman's instructional vision emphasized "deeper learning, more metacognition, and more student ownership of their learning" and was brought to life through several periods each week spent on independent research; hands-on science, technology, engineering, and mathematics (STEM) projects; and small-group learning focused on

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12 Desravines, Aquino, & Fenton. (2016).
13 Desravines, Aquino, & Fenton (2016).

writing. While the schools in our study differed in their level of vision development (in a more developed school, for example, each grade had its own articulated vision for what and how students would learn, tied to school-wide goals), the schools all (1) aligned their vision of teaching and learning with the expectations of CCR standards and (2) articulated a vision for instruction that was rich and complex.

ALIGNING THE SCHOOL'S VISION OF TEACHING AND LEARNING WITH CCR STANDARDS AND ASSESSMENTS

For several schools in our study, higher standards and the new standards-aligned assessments were the foundation of their vision. School leaders at these schools told us that "our instructional core starts with the Common Core," or that "we define rigor as the Common Core." In other words, their vision-setting process began with the standards, and they worked backward to specify the instruction and opportunities students must receive to achieve those standards. "At the highest level, we are standards-driven; everything we do comes out of the Common Core," said one principal.

Statements such as these represented more than just words — they defined practice. The schools regularly unpacked the standards and reviewed their curriculum and assessments to better understand how the demands on learning had changed, and how to adjust teaching and learning to meet these demands. One school in our study engaged in a yearly review of the research on a particular concept, focus area, or skill to "ensure that we're continuing to go deeper into the Common Core." The standards-aligned instructional vision was infused across the school: Teachers in schools with ambitious instructional leadership were knowledgeable about current work being done at the school around the standards, and they were able to explain how specific demands of the standards had driven particular improvements to curriculum, instruction, or professional development.

ARTICULATING A VISION FOR INSTRUCTION THAT IS RICH AND COMPLEX

All of the schools in our study envisioned standards-based learning that was richer and more complex than is typical in many schools. For example, traditional models of effective instruction, such as the "I do–we do–you do" gradual-release model, were not the de facto approach. Instead, the gradual-release model was one possible mechanism for supporting the kind of individualized and inquiry-based learning that principals saw as necessary for helping students reach a higher bar. Indeed, one principal told us that "teaching can no longer be that 'I do, we do, you do;' it's 'you do, we do, and I do as I summarize what we all learn.'" A school in our study demonstrated this approach in its "launch, explore, summarize" protocol for math lessons. Instead of demonstrating one approach to solving a problem and having students practice that particular strategy, the teacher would start the lesson by asking students to explore a problem and develop a strategy that made sense to them. Only after students had come up with their own approach to solving the problem would the teacher take back the reins of instruction and lead the class in a discussion of the various solutions.

This was just one strategy; each principal in our study had a uniquely grand vision for teaching and learning at his or her school. One school introduced coursework based on Google's "Genius Hour,"[14] providing a daily block of time for students to delve deeply into a topic or problem of interest. Others implemented unit- or semester-long project-based learning in partnership with external organizations or through cross-disciplinary study. Several schools put in place a STEM curriculum that included both hands-on experiments and opportunities for students to produce reports or machines that applied their learning.

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14 See http://www.geniushour.com/what-is-genius-hour/

A purposeful redefining of students' role in the classroom was a central focus in many of our exemplar schools. Leaders described this shift variously as "raising the level of student-to-student talk," "allowing students to discover that stuff for themselves and talk about it with others," and "getting students to make thinking visible." In fact, half of the schools we studied focused professional development on increasing the quantity and quality of student academic discussion. In short, schools that were demonstrating success in moving students toward mastering CCR standards had interpreted the demands of the standards as requiring a rich vision of curriculum and teaching that went beyond mere alignment to new standardized assessments. These schools were asking students to actively participate in and take greater ownership of their learning, to think more deeply and independently, and to apply classroom learning in new ways. As one principal told us: "With Common Core, and with the end of the No Child Left Behind era, we are seeing that academic discussion, student discovery, and student-centered learning are the methods through which we will arrive at academic success."

Creating and Building Buy-In for an Ambitious Instructional Vision at P.S. 125

When Reginald Higgins took the helm as principal of P.S. 125 in West Harlem, New York City, it was, he reported, a "failing school" and a "sinking ship" that was at risk for closure. Higgins had recently completed a principal internship during which he had studied various inquiry-based, progressive models of education, but he was initially skeptical of this type of approach. He had been a teacher for 10 years at a traditional public school in the Bronx and was concerned about the model's capacity to deliver an equitable and rigorous learning experience for students from impoverished backgrounds.

After further research, which included visiting several schools that were successfully implementing a more progressive approach, Higgins became a convert and developed an instructional vision for his school that would enable a "learning experience that creates the kind of intellectual engagement that the Common Core demands." Informed by this understanding of the Common Core's end goal, Higgins is pursuing a school design with a heavy emphasis on enrichment programming, inquiry-based instruction, and academic independence and individualization enabled through the Teachers College Reading and Writing Workshop model. In his vision, nearly every aspect of the school's structure and programming — from schedules to the layout of classrooms — is adapted to fit the learning needs of students, and his plans include having students explore topics in-depth through project-based learning; hands-on enrichment activities; and, in the earlier grades, play-based learning.

To turn this vision into reality, Higgins devised a strategic plan for building buy-in among teachers, many of whom had been at the school for 25 years and did not necessarily embrace the direction in which he wanted to go. He focused his efforts during his early years as principal on "triage" to get the school out of its probationary status. Gradually, he built trust and morale among the staff, improved the curriculum, and identified and developed targeted interventions for the school's students with the greatest need.

Once the staff could see that the school was improving, he piloted his ambitious instructional approach in pre-K and a single kindergarten class, building buy-in among the early-grade teachers and raising interest among the rest of his staff. Meanwhile, he continued to build urgency, excitement, and trust among teachers, telling them, "We can create something really unique here, but you have to want to create a movement and understand that in the beginning, it's going to be messy. It's not always going to be nice, but I'm going support you. I'm willing to take this leap of faith, but I need to take it knowing that I have 100 percent of you behind me to do it."

The school has only taken its initial steps in realizing this vision, but buy-in across the school has grown, and progress is visible. The school day has been restructured, and classrooms have been rearranged. The new instructional model has been expanded through second grade, and nearly a dozen partnerships with New York–area arts and service providers provide programming to support Higgins's vision for students. Meanwhile, since the Common Core tests were introduced in 2013, the percentage of P.S. 125 students meeting standards has increased by 14 points in English language arts and 17 points in math.

To learn more about the vision-setting process at P.S. 125 and other schools, read the case study.

Distinguishing Features of Vision Setting in Schools with Ambitious Instructional Leadership

Vision Setting	Standard Instructional Leadership	Ambitious Instructional Leadership
Aligning the school's vision of teaching and learning with CCR standards and assessments	Decisions about academic programs and instructional strategies are made prior to considering whether or how they are connected to CCR standards.	Academic programs and instructional strategies are backward-mapped from the goal of enabling all students to meet CCR standards, and are viewed as critical means to that end goal.
Articulating a vision for instruction that is rich and complex	The school establishes a vision for the school at large (e.g., all students will be prepared for college) but does not articulate a vision for ambitious instruction that will support students in achieving that goal.	The school envisions teaching and learning based on ambitious instructional models that will equip students with the skills and knowledge they need to compete at the highest levels.

KEY PRACTICE #2:
UPGRADING CURRICULUM AND INSTRUCTIONAL MODELS

Principals at the most developed schools in our study did not merely seek out and adopt curriculum marketed as CCR standards–aligned. Instead, they put in place systems and structures that allowed them, in collaboration with teachers and/or instructional leaders, to continuously analyze and adapt the curriculum to ensure it both met the rigor of the standards and helped bring to life their vision for ambitious instruction. The principals in our study worked with teachers to upgrade their curricula by (1) developing key instructional planning documents that ensured the standards were fully addressed across programming and (2) carefully considering what instructional strategies they should use to deliver standards-aligned lessons.

DEVELOPING KEY INSTRUCTIONAL PLANNING DOCUMENTS THAT ENSURE THE STANDARDS ARE FULLY ADDRESSED ACROSS PROGRAMMING AND THROUGHOUT THE SCHOOL YEAR

Ambitious instructional leaders intentionally aligned all aspects of their curriculum map to CCR standards. They often initiated this process by carefully studying the new state assessments with teachers and instructional leaders, and then using the assessments to determine the level of rigor for shared texts, math problems, classroom tasks and assignments, and interim assessments. In describing the benefits of using the SBAC tests and blueprints to inform curriculum maps, one teacher said, "It gave us a level of understanding of where our kids really need to be . . . and made us think hard about how we are going to break down these different rigorous question types so that our kids can understand them." To monitor students' mastery of the necessary skills, this school also used items from the SBAC practice exams to guide the design of its formative and interim assessments.

Schools also used the assessments to help shape the scope and sequence of their curricula, as leaders and teachers revised their programming to better prepare students for challenges such as using evidence from multiple sources to support a written argument and solving multistep math problems. Unlike in many schools, where the process of alignment to CCR standards might be limited to little more than attaching designated standards to barely altered lesson plans, principals demonstrating ambitious instructional leadership guided teachers in backward-mapping curriculum plans and pacing guides from the standards, making sure they included repeated opportunities for students to revisit and practice skills. For instance, the principal of one elementary school helped grade-level teams create a framework for writing that included several opportunities for evidence-based writing in each quarter and articulated increasingly complex tasks and reading–writing connections.

With a clear learning sequence in place, principals could then evaluate and select existing CCR standards–aligned resources that would work in their classrooms. All schools in our study used some form of purchased curriculum; what distinguished ambitious instructional leaders was that they adapted these materials to their instructional vision, rather than the other way around. In multiple elementary schools, for example, teachers experimented with several different approaches to key mathematical focus areas, pulling from multiple sources — including EngageNY, the curriculum they developed in-house, and their former textbook-based program — to determine which lessons best addressed a given standard or concept in a way that also fit their vision for student engagement and inquiry. The lessons they deemed most effective became part of the teachers' menu of options for developing instructional plans.

Importantly, these schools saw curriculum development as a process of continuous improvement, and they consistently monitored implementation. "At the end of each unit," the instructional coach at one school said, "we meet with teachers and go over the unit while it is fresh in their mind: Which lessons should stay? Where were there gaps?" The leadership team at another school used teacher perception surveys and data about student responses and engagement to evaluate each unit and determine which lessons were most effective.

CAREFULLY CONSIDERING INSTRUCTIONAL STRATEGIES FOR DELIVERING STANDARDS-ALIGNED LESSONS

The principals in our study recognized that upgrading their curriculum was necessary but not sufficient to address the more rigorous expectations of the CCR standards; only significant changes in how teachers led their classrooms could bring about these shifts. Simply tacking on an activity to a traditional lesson would not instill in students the ability to make inferences based on textual evidence, for example, or to explain why 1/4 is smaller than 1/2. Teachers had to design and deliver instruction in a way that built that capacity. Said one principal, "For us, it's the idea of 'Okay, if you know you're teaching a specific skill, you could use close reading as a tool to do that.'" The supervisor of another principal in our study confirmed, "It's an increase in intentionality."

That intentionality, when sustained, led to shifts in instructional practices in both math and English language arts classrooms. In math, for example, ambitious instructional leaders could identify the components of the shift from purely procedural to more conceptual mathematics — such as increased emphasis on student exploration of different problem-solving strategies. But they could also point to specific changes in everyday instruction that supported that transition, such as the use of manipulatives in the early grades to solve problems. At these schools, we observed teachers prompting students to test out emerging mathematical ideas, using student "turn-and-talks" when new problems were introduced, and asking students to explain their problem-solving strategies to the class as a way to advance the conceptual understanding of all students.

In literacy, many schools in our study were working to ensure that students engaged with complex, grade-level texts and recognized that they had to design and deliver instruction that would support students in comprehending and thinking analytically about what they were reading. Some leaders had developed grade-wide instructional protocols for leading close reading and discussion in a way that would bolster students' understanding, or had established routines for incorporating more text-based argumentative writing. Half of the schools in our study were working to increase the ratio of student talk to teacher talk — with a goal of pushing students to do more of the "thinking work" around shared texts — and more than half had a school-wide focus on writing. We frequently observed cross-grade and/or cross-content collaboration around teaching writing, such as at a high school where English and social studies teachers worked together to develop a common rubric for guiding argumentative-writing assignments. In sum, ambitious instructional leaders recognized that the creation or adoption of a standards-aligned literacy or math curriculum was only one piece of the work. They also had to lead commensurate shifts in instruction, supported through professional development targeted at specific focus areas, to cultivate the kind of student thinking and learning that would build college and career readiness.

Developing a Standards-Aligned Math Curriculum at DC Bilingual

In pursuit of a mathematics program fully aligned to the Common Core standards, instructional leaders at DC Bilingual — a K-5 charter school in Washington, D.C. — spent several years trying out various curricula. DC Bilingual's leaders (the principal and math team) adopted and then abandoned TERC Investigations, which they determined was not sufficiently aligned to the standards; developed their own curriculum; and then finally settled on a unique adaptation of a newer, Common Core–aligned version of the TERC curriculum.[15] Over these years, the school simultaneously worked to develop and refine an instructional model that addressed the Common Core shifts in math, and relied heavily on coaching, collaboration, and professional development structures to pilot different programs and build teachers' capacity for enacting inquiry-based mathematics. Ultimately, DC Bilingual established an instructional model that prioritized exploration, use of manipulatives, and math talks.

The decision to adopt the new version of the TERC curriculum was based not only on its alignment to the standards but also on its alignment with the school's instructional vision. "We want to . . . challenge them to use their interpretation of numbers and knowledge of how numbers work together to find the results," explained DC Bilingual's principal, Daniela Anello. "TERC's lesson structure, in which teachers center mathematics learning around exploration and repeated practice through games and centers, and kids have repeated opportunities to talk to one another about their learning, aligns with our teachers' existing practices and models." The value the TERC curriculum provided to DC Bilingual was that it offered coherence and clarity: Teachers could see the sequence and connections between lessons and units, which increased their understanding of and enthusiasm for the materials. "They are able to better plan lessons because they are planning from a structure," said a math coach.

But the school did not completely discard the curriculum it had developed in-house. Rather, it set an expectation that 80 percent of lessons and activities would be culled from the TERC sequence, and the rest drawn from "DCB favorites" — lessons and materials the instructors had developed that had proven to be effective. Having a menu of potential approaches "gives teachers flexibility and consistency — a real spine or core of our math program," said the math coach. It also allowed the school to adapt the program to its vision for ambitious math teaching.

When DC Bilingual introduced the new curriculum in the 2016–17 school year, coaches provided professional development before each unit to help teachers understand its big ideas and teaching practices. The school also regularly collected formative and interim assessment data, as well as teacher perception data, so the math curriculum team could continue to refine and improve the curriculum and its implementation.

DC Bilingual's intensive work on its math curriculum was reflected in its strong results on the PARCC tests. In 2015, the first year of PARCC testing, DC Bilingual had the fourth largest percentage of third graders receiving a 3 (approaching college-readiness standards) or higher in math of any D.C. school. In 2016, the percentage of students meeting math standards increased by 12 points.

To learn more about curriculum alignment under ambitious instructional leaders, read the case studies.

Distinguishing Features of Upgrading Curriculum in Schools with Ambitious Instructional Leadership

Upgrading Curriculum	Standard Instructional Leadership	Ambitious Instructional Leadership
Choosing and developing curriculum	Curriculum decisions and development are done in isolation of CCR standards; CCR standards may be appended to lessons and units, but as an afterthought.	CCR standards inform decisions about which curriculum to adopt and develop; curriculum materials are adapted to the school's instructional vision.
Considering delivery approaches	Delivery approaches are determined in isolation of CCR standards and do not necessarily support development of the thinking, speaking, writing, and problem-solving skills called for by higher standards.	Delivery approaches are chosen based on the extent to which they will address student needs for meeting higher standards.

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15 A revised, Common Core–aligned version of TERC was released in the summer of 2016. See http://investigations.terc.edu/components/CCSS/CommonCore.cfm

KEY PRACTICE #3:
CREATING SYSTEMS TO SUPPORT DATA-DRIVEN INSTRUCTION

The practice of collecting and analyzing interim measures of student achievement data has long anchored instructional work at strong schools. However, the challenge of raising the quality of teaching and learning to meet CCR standards prompted our observation schools to carry out more frequent, intensive, and focused monitoring, and to introduce new types of assessments. A number of our schools continued to use some of the same interim assessments they used before the introduction of new standards, such as the Northwest Evaluation Association's Measures of Academic Progress (MAP) or Compass Learning, but they also integrated teacher-created formative assessments aligned to CCR standards, such as end-of-lesson exit tickets. In the most developed schools we observed, teachers and leaders reviewed these data *daily*, and were extremely deliberate in how they used them to adjust instructional strategies. One teacher leader noted, "What we are doing to meet the standards has evolved a lot. Before, we were just looking at data and talking about the problems; now, we are looking at specific students and are much more solutions-oriented."

Data-driven instructional leadership at these schools included two vital strands of work: (1) leading the process of evaluating, selecting, and/or adapting a variety of frequent, formative assessments aligned to higher standards; and (2) developing and implementing a robust strategy for the ongoing collection, tracking, and use of multiple forms of data (e.g., student data, classroom observations, lesson plan reviews) to make immediate adjustments to instruction.

CHOOSING A VARIETY OF FREQUENT FORMATIVE ASSESSMENTS ALIGNED TO CCR STANDARDS

The data-driven work at the schools in our study was grounded in the goal of ensuring that their assessments were aligned to the higher standards. While most of the schools used a range of diagnostic, interim/unit, and formative assessments for each course or grade level, a key difference maker in many of the observation schools in our study — particularly elementary schools — was the short, formative assessments, such as running records, reading inventories, and exit slips, that they administered daily or several times a week.

One elementary school, for example, used the Fountas and Pinnell running record system to regularly assess reading levels — which in itself, said the principal, had provided a "big lift" to the school's success. However, once the school also began administering regular probes from the Scholastic Reading Inventory — which measured students' comprehension of grade-level, complex texts — instructional leaders realized that students who were reading below grade level were spending too much time reading books at their own level. Said the principal, "That's problematic, when you think about the Smarter Balanced tests, because you need to have some sort of strategy to comprehend texts that are more challenging and difficult." Another elementary school in our study used exit slips to monitor student understanding of key standards in a given unit; during their shared lunch period, teachers used that data to determine the makeup of guided-reading and math groups the following day. Exit slip data — indicating that extra small-group time improved student performance — also informed teachers' decision, midway through the school year, to lengthen the small-group guided-reading block by 10 minutes.

DEVELOPING ROBUST STRATEGIES FOR TRACKING AND USING MULTIPLE FORMS OF DATA

School leaders in our study had developed, or were working to build, a multipronged strategy to facilitate the more rigorous approach to data-driven instruction that they saw as necessary for meeting the new standards. These strategies included creating consistency across the school — or at least within grades and/or subject areas — regarding the types of data teachers collected and the tools they used to facilitate data analysis. Schools with ambitious instructional leadership usually had "trackers" — shared spreadsheets where teachers and school leaders entered student data. These trackers permitted a comprehensive

review of multiple strands of student data, such as performance on interim and standardized assessments, to inform decision-making. One K-8 school in our study used a single tool to compile not only student achievement metrics but also attendance data and information from parent–teacher conferences. All teachers had access to the tool, which enabled robust collaboration in analyzing the data, identifying root causes for performance trends, and developing solutions.

Importantly, schools in our study had created protocols and norms for team and teacher-leader meetings to ensure that everyone used the opportunities to review and strategize in response to the collected data. Multiple schools in our study scheduled regular one-on-one data meetings between a school leader (the principal or instructional coach) and teachers to discuss individual student progress. Other schools had frequent — sometimes weekly — professional learning community sessions, during which they used a range of performance indicators for planning, including student work and interim assessment scores. "We use the data in every single conversation with our teachers, whether it is a planning meeting, a coaching meeting, a grade-level team meeting, a vertical team meeting, or a leadership meeting," said one principal.

Data-Driven Instruction at Acorn Woodland Elementary
Teachers at Acorn Woodland Elementary, an elementary school in Oakland, California, used a range of assessments — including the Scholastic Reading Inventory, Fountas and Pinnell running records, quarterly benchmark writing assessments, and more — to monitor and attend to student learning needs. The school had recently switched to the Reading and Writing Workshop model and was regularly assessing individual reading levels. Combining the Fountas and Pinnell probes and checks for understanding with the Scholastic Reading Inventory — which measures students' comprehension of grade-level texts — allowed the school not only to monitor individual progress but also to calibrate that progress against the expectations of the Common Core. The combined results from these interim assessments made it clear that Acorn had, as the principal described, "swung the pendulum pretty far into independent reading, reading at your level — we're not giving kids access to grade-level, complex texts."

To get a "peek into the teachers' practices" aimed at helping students to read and understand complex texts, the principal instituted monthly data meetings with each of them to review student progress on multiple literacy measures. The reviews included an intense focus on item analysis and the performance of individual students, and revealed that teachers were not consistently giving students opportunities and support to tackle complex texts. Based on his findings from these meetings, the principal decided to focus professional development and coaching on this area of practice for the remainder of the year. He said, "A big 'aha' for us as a school was realizing we had to give teachers that support of 'this is when you're going to include complex texts in the lesson, and there's an expectation that you do it.' It's not optional. You have to do this."

Ultimately, this careful work monitoring and adjusting English language arts instruction paid off for Acorn students: In 2016, fourth graders' performance on the SBAC English language arts exam increased by 27 percentage points, and five graders' performance increased by 20 points (compared to their 2015 performance as third graders and fourth graders respectively).

To learn more about data-driven instruction at a school with ambitious leadership, read the case study.

Distinguishing Features of Data-Driven Instruction in Schools with Ambitious Instructional Leadership

Data-Driven Instruction	Standard Instructional Leadership	Ambitious Instructional Leadership
Types of formative assessments	Assessments are not redesigned to align with CCR expectations and are limited to interim assessments.	Assessments are aligned to CCR expectations and both interim assessments and a variety of formative assessments (such as exit slips and running records) are used.
Systems for tracking and using formative assessment results	Teachers may have their own systems (e.g., exit tickets), but they are not shared or systematically tracked in ways that support teachers in collaboratively using the data.	Systems for tracking data are shared across classrooms, and the data is frequently and collaboratively used to identify immediate adjustments to be made to instruction.

KEY PRACTICE #4:
CREATING OPPORTUNITIES FOR INDIVIDUALIZATION AND INTERVENTION

CCR standards ask *all* students to meet significantly higher expectations. To provide every student with the supports he or she needed to reach this higher bar, the schools we observed paid significant attention to individualization and intervention. Schools have long tried to prioritize attending to the diverse needs of learners— indeed, many schools have adopted models, such as the Reading and Writing Workshop, which permit greater attention to individual differences in reading and performance. However, schools have often implemented these models in ways that do not adequately address rigor, with a focus on "just-right" content outweighing time spent on grade-level texts and tasks. The schools we examined approached individualization not as a way to provide differentiated materials to meet the level students were at, but rather to ensure all students received the supports necessary to meet CCR standards.

Principals in our study enacted individualization and intervention through two main strands of work: (1) providing small-group and individualized learning opportunities for all students to scaffold between their current performance and the expectations of CCR standards; and (2) organizing staffing and schedules around instructional individualization and interventions.

PROVIDING SMALL-GROUP AND INDIVIDUALIZED LEARNING OPPORTUNITIES FOR ALL STUDENTS TO SCAFFOLD SUPPORT TO CCR STANDARDS MASTERY

The schools in our study adopted instructional models that prioritized small-group instruction — such as workshop models and center-based instruction — and improved upon them by calibrating the approach with the expectations of CCR standards, providing supports to ensure all students received help to meet the standards. "Teachers can't just use a jargon term of, 'Oh, we're going to differentiate instruction,'" said one elementary school principal. "No, you have to individualize instruction because you truly know your children."

Principals at schools in our study worked with teachers to ensure all students had access to rich content that was not "dumbed down," and allocated instructional time to provide necessary supports for students who were performing below grade level. One elementary school, for example, focused literacy interventions on reading complex, grade-level texts. Struggling readers received support in small-group pullouts, but intervention teachers did not simplify the anchor text or the level of questioning. The school also monitored progress through daily probes to ensure students were not placed in intervention groups based on preconceptions or past performance. Another elementary school used a "check for understanding" protocol, running records, and exit tickets to generate daily data on students' progress, which teachers entered into a school-wide tracker accessible to all staff. Teachers used these data to organize subsequent instruction around students' progress toward mastery on priority skills.

ORGANIZING STAFFING AND SCHEDULES AROUND INSTRUCTIONAL INDIVIDUALIZATION AND INTERVENTIONS

Making structural changes was a clear starting point for enabling robust individualization and intervention at the schools in our study: they made changes to staffing and schedules to prioritize targeted learning opportunities for all students. One elementary school attributed its recent progress in closing achievement gaps to the fact that it built its schedule around creating sufficient small-group instructional time for English language learners and students receiving special education services. Several other schools in our study spoke of creating individual schedules for each student in the school to enable pullouts, opportunities for acceleration, and other ways of supporting their progress.

Multiple schools designed their schedules so that teachers within the same grade or subject could flexibly group students across classes or grades to provide extremely targeted daily instruction. Some schools created daily silent-reading periods — which they used to provide individual or small-group literacy support — or dedicated intervention blocks. Schools also maximized staff capacity by having instructional support personnel provide differentiated instruction. For example, coaches or paraprofessionals often provided small-group or individual interventions. Two elementary schools intensively trained parents and community members to carry out reading interventions inside the general classroom.

At schools where reaching all learners was at the center of their mission and design, individualization occurred with particularly high levels of coherence, intensity, and consistency. Like many schools, these schools utilized ability grouping, guided small-group instruction, and computer-assisted instruction as individualization strategies — but creating time and space for individualized instruction also informed every aspect of their staffing strategies, data cycles, and schedules.

Individualization at DC Bilingual Public Charter School

At DC Bilingual, an elementary school in Washington D.C., multiple stakeholders reiterated that "the norm is to reach all students." The school provides pullout, targeted reading instruction to *all* of its students, and makes daily and weekly alterations to intensity and frequency based on ongoing formative assessments. The school also has a comprehensive intervention program for academics and behavior, with distinct interventions based on Response to Intervention levels. While DC Bilingual provides "transitional" classes for English language learners and those who are new to bilingual education, the school places them in the same classrooms as other students, and they learn using the same curriculum. Smaller class sizes and a dedicated intervention and bilingual staff allow the school to provide additional access points into that curriculum for language-learning students.

"The instructional core, I would say, is about finding students' strengths and identifying the discrepancy between where we know our typical student is in that age group and where that grade-level group needs to be," said the school principal. "We come up with all of the resources necessary to get them to be performing on grade level and meeting the standards at that grade." One critical way the school provides this support is by marshaling a range of personnel to provide small-group and individualized instruction. The school trains volunteers from AARP to enact the Wilson reading intervention model,[16] and it has its instructional coaching staff — made up of some of the school's strongest teachers — work one-on-one with the students most in need of support.

"Our vision, our core vision of instruction, is one where kids are seen individuals. It is our job to identify how to give them the skills necessary to achieve quickly and to make sure that the learning sticks," said DC Bilingual's principal, and students' progress on PARCC tests reflects that vision. In 2016, the school increased the percentage of students meeting standards by 6 points in English language arts and 12 points in math, placing it among the 10 highest performing charter schools in the city.

Distinguishing Features of Individualization and Intervention in Schools with Ambitious Instructional Leadership

Individualization and Intervention	Standard Instructional Leadership	Ambitious Instructional Leadership
Students targeted for individualized learning	Opportunities for individualized learning are typically provided to special needs students or struggling students, and these students are exposed to less rigorous content that is often below grade level.	Opportunities for individualized learning are prioritized for all students, and the focus is on supporting students to master rigorous grade-level content.
Staffing and schedules for individualized learning	Individualization and interventions are wedged into an existing schedule.	Scheduling and staffing structures prioritize individualization and intervention.

16 See http://www.wilsonlanguage.com/programs/wilson-reading-system/

KEY PRACTICE #5:
CREATING SYSTEMS FOR GROUP PROFESSIONAL LEARNING AND COLLABORATION

Principals in our study used teacher collaboration as a key lever to increase teachers' understanding of the ambitious instructional practices necessary to build students' college and career readiness. While schools and districts across the country have dedicated countless hours of professional development to supporting teachers in the adoption of new standards, most of this time was discrete and focused on familiarizing teachers with the standards and the major "shifts," reviewing recommended pedagogical practices, and giving teachers opportunities to unpack the standards and create new units or lessons.[17] Group professional development led by ambitious instructional leaders, by contrast, places much greater emphasis on sustained study of classroom implementation, so that teachers receive ongoing support in learning about and delivering instruction that meets the demands of the new standards.

Collaborative professional learning in the schools we studied was distinctive in two key ways: (1) It intensively focused on continuously improving instruction at the school in relation to the demands of higher standards, and (2) it had teachers collaboratively map backwards from the standards to plan units and lessons as a strategy for deepening their understanding of CCR expectations.

CONTINUOUSLY IMPROVING PRACTICE IN RELATION TO THE DEMANDS OF HIGHER STANDARDS
Principals in our study made enhancing and sustaining the rigor of instruction the primary focus of professional development; the curriculum and teachers' own instructional practices were the focus and "content" of this work. These ambitious instructional leaders cultivated the mindset that mastering standards-aligned instruction was a learning process, and they prioritized professional development that gave teachers opportunities to collaboratively study classroom practices in relation to the standards and to apply what they learned.

Every development opportunity at these schools (such as all-staff meetings, teacher-team meetings, and coaching and feedback sessions with a coach or principal) was practice-centered. Teachers frequently — multiple times a week in our most developed schools — examined their instruction with school leaders and/ or peers. They spent professional learning time researching, adopting, and monitoring the implementation of more rigorous curriculum and instructional models — or on practice-based professional development activities, such as lesson study. During team meetings, teachers compared their implementation of more ambitious pedagogies; examined artifacts of student progress; or worked together to create or refine instructional products, such as a yearlong scope and sequence or shared instructional activities, modules, and protocols (e.g., for close reading). Importantly, the schools developed a common language and shared definitions around instructional practices, which facilitated collaborative work within and across grades. These collaborative efforts helped teachers to identify high-quality pedagogy, content, and tasks, and to implement rigorous instruction more consistently in their classrooms.

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17 Education Week Research Center. *From adoption to practice: Teacher perspectives on the Common Core*. Retrieved on November 23, 2016 from http://www.edweek.org/media/ewrc_teacherscommoncore_2014.pdf.

USING CCR STANDARDS TO DRIVE COLLABORATIVE UNIT AND LESSON PLANNING

Principals at schools in our study also built teacher capacity by having teachers backward-map from the standards to collaboratively plan units and lessons. Teachers used the concepts and cognitive demands of the standards to guide and inform the texts they chose, the questions and problems they crafted, and the assessments they developed. As they did so, their capacity to identify and implement standards-aligned curriculum and instruction expanded. "It's teachers asking each other 'Okay, what are you doing to get to that standard?'" said the principal of one elementary school in our study. "It's not saying, 'Oh, what activities should we do on this day?' They agree on a common text, and they might say, 'We can agree to disagree on how we will go about teaching it,' but the discussion focuses on the end goal."

The schools varied in the amount of time they could dedicate to curriculum planning, but leaders in all the schools created norms and protocols to ensure that, regardless of hours available, teachers remained focused on alignment to the standards. For example, principals set expectations that grade-level teams plan around the specific standards for that grade, while giving primacy to the major shifts (e.g., in English language arts, regular practice with complex texts and academic language; reading, writing, and speaking grounded in evidence from the text; and building knowledge through content-rich nonfiction). By involving all teachers in this process, ambitious instructional leaders were able to spread critical knowledge about the demands of CCR standards across the school, and to foster buy-in among teachers for helping students meet them.
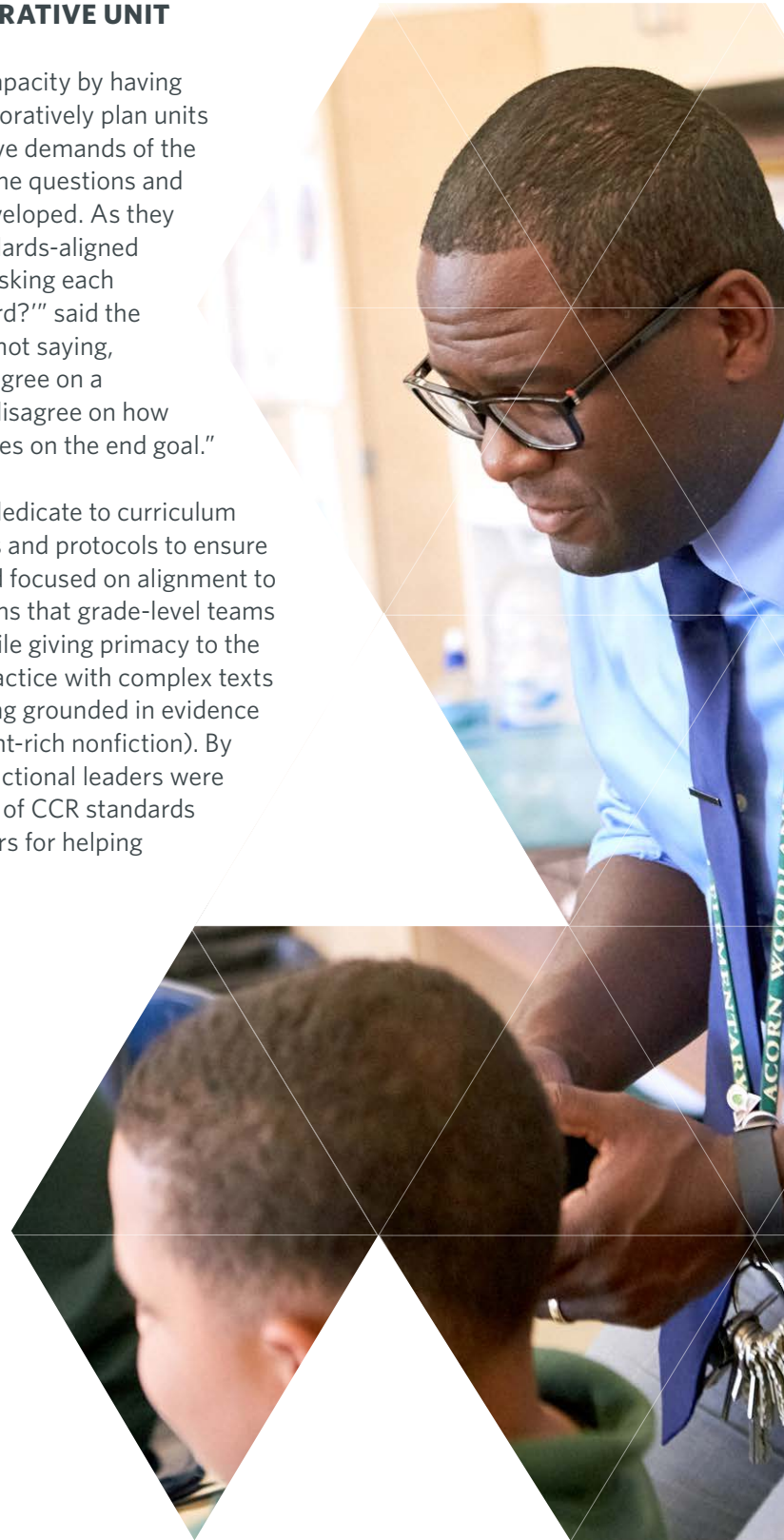
Using Collaborative Planning as Common Core–Focused Professional Development at Cardenas Elementary School

Jeremy Feiwell, principal of Chicago's Cardenas Elementary School, where 97 percent of students are low-income and 52 percent are English language learners, understood that building his teachers' expertise about the Common Core would both increase their sense of ownership about the necessary changes and enable them to consistently deliver standards-aligned instruction. Starting in the year before Chicago required formal adoption of the standards, Feiwell held a series of before-school meetings in which he dissected the standards with his teachers. He presented the Common Core as an opportunity to improve instruction and put together cross-grade groups of teachers, asking them to concentrate on understanding the coherence and vertical articulation of skills across grades. "We basically dove into the standards from a developmental perspective," said one early elementary teacher. "'Okay, I'm a second-grade teacher — what does the Common Core standard for first grade say for Reading Literature?' We dissected what the standards were truly asking kids to do."

Based on this learning, a committee of teachers created a framework for the school that broadly outlined unit sequences across grades, specifying the standards, strategies, focus areas, and essential questions that would be addressed. The committee also created a planning tool for each unit, which grade-level and content-area teacher teams could use to design unit and lesson plans that addressed the standards and met the specified level of rigor.

To create time for team planning, Feiwell found money in the school's budget to hire substitutes for three to four days per teacher over the course of the year. Feiwell and his assistant principal helped the teams set goals for each meeting and also provided resources, such as graphic organizers and background research, to ensure their time was maximized. "It was like a war room," one teacher said, adding that the teams were never disturbed or called out of the meetings. "It was like, 'This is your focus for this day.'"

Using the curriculum map and unit sequences as their guide, teachers evaluated materials from various sources, such as EngageNY; chose texts and tasks for each unit and lesson that were aligned to target standards; and incorporated the major Common Core shifts. As they went through this collaborative planning process, their knowledge about the demands of the standards grew. As one teacher described, "We would say 'Wait a minute. We can't do this right now, because we haven't built the necessary background knowledge.'" Together, teachers would work on integrating supplementary texts that would build this knowledge in their students, but they did not dumb down the standards-aligned material they were planning to use. The following year, the first of Common Core implementation, teacher teams continued to grow their expertise and knowledge during weekly meetings when they planned, debriefed, and revised lessons.

This process of collaborative planning has turned teachers across Cardenas into Common Core experts, and has created a shared sense of ownership about helping students meet the more rigorous expectations. Feiwell and his team acknowledge there remains much work to be done, but performance on state exams indicates they are on the right track: In the first year of PARCC testing, Cardenas outperformed the state average by five points in English language arts and 19 points in math, despite serving a far more disadvantaged population.

For more on professional development at a school with ambitious leadership, read the case study.

Distinguishing Features of Professional Learning and Collaboration in Schools with Ambitious Instructional Leadership

Professional Learning and Collaboration	Standard Instructional Leadership	Ambitious Instructional Leadership
Frequency and intensity of collaborative professional learning	Opportunities for collaborative professional learning are infrequent (e.g., quarterly learning walks, single lesson study).	Practice-centered study, such as peer observations and feedback and collaborative study of videotaped classrooms, happens regularly (often weekly) at both the all-staff and teacher-team level.
Focus of professional learning	Professional learning is focused on distributing information to teachers about new standards and instructional "shifts."	Professional learning is focused on studying and improving the implementation quality of curricula and instructional approaches aligned with CCR standards.
Collaborative lesson planning	Teachers plan collaboratively and are required to match designated standards to lesson or unit plans.	Teachers plan collaboratively, using the standards and supporting documents (e.g., scope and sequence, assessment blueprints) to inform their choice of texts or mathematical problems; design lesson plans, tasks, and assignments; and determine instructional supports.

KEY PRACTICE #6:
PROVIDING CONSISTENT COACHING AND FEEDBACK TO INDIVIDUAL TEACHERS

Observation, coaching, and feedback have always been critical components of strong instructional leadership. Prior to the Common Core, however, irregular learning walks and post-observation debriefs — informed by a straightforward instructional vision (e.g., "I do–we do–you do") — might have sufficed to ensure an adequate quality of teaching and learning. By contrast, in schools making progress toward college and career readiness, coaching was frequent and extremely targeted. Principals at these schools established mechanisms to monitor teacher practice and provide regular, individualized feedback. They also tracked the content and impact of coaching and feedback sessions, so they could continually adjust and refine their system of support for teachers. In our observation schools, coaching was distinctive in two key ways: (1) It focused on specific, standards-aligned instructional practices, and (2) it was monitored and individualized to maximize impact.

FOCUSING COACHING AND FEEDBACK ON STANDARDS-ALIGNED PRACTICES

At the most developed schools we observed, leaders consistently provided actionable feedback that was focused on supporting the necessary shifts in teachers' practice. They used classroom observations and student data to inform the focus and frequency of coaching, and they used this data to target feedback on specific, CCR standards–aligned instructional skills and practices that needed improvement (e.g., ensuring lessons were focused on the proper standard for that grade, asking rigorous questions, or using math talk productively). One elementary school in our study, for example, used learning walks to sharpen the connection between the school's instructional model for literacy and a priority standard. Prior to observing and discussing colleagues' classrooms, school leaders led teachers in analyzing the targeted standard and watching and discussing a video of teachers delivering instruction, so that they developed a shared understanding of what strong instruction aligned to that standard could look like. On the subsequent learning walk, school leaders directed the group to concentrate on the questions that were being asked and how the observed teachers were facilitating student discussion, attending in particular to how student understanding was enabled or impeded. The school planned observation opportunities at this level of specificity for nearly every aspect of its literacy instruction, and extended teacher learning about each focus area over several professional development sessions and teacher-team meetings, and through job-embedded practice.

INDIVIDUALIZING AND MONITORING COACHING TO MAXIMIZE IMPACT

In the most developed schools, instructional leaders carefully monitored the impact of their feedback to ensure teachers were receiving the support they needed. These schools kept detailed trackers of the content of coaching sessions and data from subsequent observations, using this data not only to guide individualized professional development plans for teachers but also to evaluate the effectiveness of the instructional leadership team. "In our coaching meetings, we look at classroom data," said one principal. "We see which kids are scoring below grade level in what classes, and we ask, 'Who's their coach? What're you doing about that?'"

This level of monitoring allowed the leadership team to deliver extremely targeted support in professional learning sessions. For instance, at one school during a walk-through focused on writing, the principal stayed by the side of a new teacher, directing her attention to various elements of writing instruction — such as how she facilitated small groups — in which she needed support. At a coaching session in another school, the literacy coach worked closely with a teacher on developing questions to support an in-class writing assignment: "Thinking about the ideal student action," she said, noting the teacher's selection of a higher quality written response, "let's first generate a question that's open-ended and encourages multiple responses. What will your questions or prompts be to get to that action?" The coach and teacher rehearsed the questions, and later, the coach observed the lesson in action and provided feedback.

Several principals also set up systems to provide teachers with regular and timely input on their instructional plans. At one elementary school, instructional coaches or deans reviewed weekly lesson sequences for their alignment to the grade's scope and sequence, the coherence of the learning sequence, the fidelity of the instructional model, and the alignment between assessments and standards. When plans fell short in any of these areas, teachers received just-in-time coaching support. At another school, feedback on teachers' instructional plans was less frequent but still focused on the use of key standards-aligned practices. "Any time we're reviewing lesson plans, we're going to be monitoring Depth of Knowledge, close reading, math talks." said the principal. "Because you put it in their unit, now I'm going to assess it, monitor it, make sure the progress on it is there."

Coaching at KIPP Comienza

KIPP Comienza, a K-5 charter school in Huntington, California, provides multiple levels of instructional support, including individual coaching and team-level feedback. Two deans and two instructional coaches provide weekly feedback on the lesson plans of all teachers, biweekly observation and coaching of select teachers, and monitoring and co-planning of teacher-team meetings with grade-level leaders. Administrators have established a consistent protocol for observation and debriefing that is centered around discussing data and determining next steps. The school collects data from these observations and coaching sessions in order to monitor teacher progress and hone the support process. "The consistency of the observations is what helps to make sure that quality instruction is happening in every single classroom," said the principal.

Coaching and feedback at KIPP Comienza are focused on effective enactment of the school's lesson model and grade-level scope and sequence as well as teacher uptake of instructional priorities, which in 2015–16 included teaching cognitive strategies for problem-solving and increasing the ratio of student talk to teacher talk during lessons. As the principal noted, feedback on lesson plans and instruction is focused on "seeing that the lesson model is being executed faithfully, both in terms of the mini-lesson and also the accountability for students." In a feedback session about a lesson plan, the dean steered the conversation with the teacher to the pacing and questioning within the lesson, as well as its attention to the reading standards being addressed in the unit.

With instructional priorities shifting in the subsequent school year to the implementation of the school's new instructional model for literacy, so too will coaching and feedback "shift the accountability from the actual lesson planning to more of the execution," said the principal. Meanwhile, KIPP Comienza continues to excel on the SBAC exams. In 2016, the percentage of students meeting standards was 83 and 85 percent in English language arts and math respectively.

For more on coaching at a school with ambitious leadership, read the case study.

Distinguishing Features of Coaching and Feedback in Schools with Ambitious Instructional Leadership

Coaching and Feedback	Standard Instructional Leadership	Ambitious Instructional Leadership
Focus of coaching and feedback	Feedback is broad and not necessarily strategic or focused on CCR standards.	Coaching and feedback are strategically aligned with school-wide strategies to improve the quality of specific instructional practices aligned to CCR standards.
Monitoring and individualization of coaching and feedback	The impact of coaching and feedback is not monitored, and as a result, schools are not aware of whether a teacher is implementing feedback or making progress.	Schools monitor coaching and feedback and their impact on teacher practice, making adjustments to ensure teachers receive individualized support.

CRITICAL CONDITIONS FOR INSTRUCTIONAL IMPROVEMENT

It is not easy to establish the systems and structures required to carry out instructional leadership with such high levels of consistency, frequency, and quality, and it may be especially difficult to initiate this type of work at less developed schools. In examining our study schools, however, we found that there were certain critical conditions that, when firmly established and sustained, played an important facilitative role in meaningful instructional improvement. These conditions were not directly related to the instructional core, but they enabled principals to effectively put in place the key instructional leadership practices. These conditions were (1) effective talent management, (2) maximized learning time, and (3) a high-quality professional learning culture. Since these conditions were not specific to CCR standards, some of our study schools already had them in place when the new standards were introduced. Others prioritized putting them in place as the first stage of their work.

EFFECTIVE TALENT MANAGEMENT

Principals in our study used talent management practices in several key ways to maximize staff capacity and impact. First, when filling open positions, schools screened candidates for alignment with the school mission, instructional model, and culture, and they focused induction — which at two schools occurred over several weeks before the start of the school year — on integrating them into this culture. Explained one principal, "We look for teachers who are committed to the vision and mission of our school and our work, and are willing to be continuous learners — they want to get better for the sake of students." One school prioritized "coachability" over pedagogical knowledge, screening for this quality by asking candidates to give a demonstration lesson, receive feedback, and reteach the lesson. Two schools even set up their own residency programs, with new — and sometimes experienced — teachers serving in assistant roles for a year as they learned the instructional model and internalized school values.

Second, schools placed existing staff in roles that best supported school improvement. For example, one pre-K-3 school assigned its strongest teachers to second grade, so they could address persistent reading issues a year before the PARCC test. Conversely, one school took a weaker teacher out of the classroom and made her a parent coordinator, reducing potential learning loss for students while taking advantage

of her strong community ties. Third, principals increased the influence of good teachers by giving them leadership roles, coaching them into administrative positions, or building them up as a school resource by sending them to participate in external professional learning opportunities. Finally, multiple schools repurposed administrative roles, particularly the dean, to lead specific improvement efforts, such as community outreach, college and career counseling, or STEM initiatives.

MAXIMIZED LEARNING TIME

Schools in our study made deliberate and substantive changes to their schedules to maximize learning opportunities for students and teachers. Many increased the time spent on literacy and math, with more than half of our study schools dedicating more than two hours of daily instructional time to reading and writing, and at least 70 minutes to math.[18] An additional strategy was the "extended-day" approach, where schools offered one to three hours of after-school academic support — often in the form of tutoring — along with enrichment activities. In one school, teachers converted after-school professional learning time into a drop-in academic support period, providing small-group instruction to students with grades below a B and to those needing acceleration.

Enabling Contextual Factors

Principals' work of leading to higher standards was enabled by several contextual factors. These contextual factors were not critical — we observed schools that made progress without them — but they did appear to enable principals to put key practices in place more quickly or with greater solidity.

- **Length of reform period/principal tenure.** Some principals attributed their school's success to the fact that they had been engaged in instructional improvement efforts for 10 years or more. For these schools, important improvement efforts had preceded the rollout of CCR standards, including developing an instructional vision, building strong teams, and creating professional learning structures. When the standards arrived, these schools had the culture and systems to initiate and sustain high-impact instructional improvement work. By contrast, principals in their first five years in the role and/or the improvement process were often still working on creating optimal conditions, such as building buy-in, making changes to staff, and establishing strong connections to parents and the community.

- **School size.** Half of the schools in our study were created during the "small-schools" movements in the 2000s, when many urban districts created new schools with deliberately small populations (usually around 100–200 students per elementary school and 200–400 students per high school) to provide a more supportive and individualized learning culture. Recent research indicates that small schools may contribute to improved social relationships, student–teacher interactions, and student engagement,[19] and a rigorous study in New York City found that small schools had a positive impact on high school graduation and college matriculation.[20] Our research suggests that an additional benefit for schools created during the small-schools movement is that principals have greater agency to build a shared vision and hire mission-aligned staff.

- **Money/external partnerships.** Some of the schools in our study were relentless about pursuing additional funding opportunities. They focused these funds on resources to increase teacher capacity and student achievement, including instructional coaches, supplemental programming, and/or intensive professional development. One school secured more than $3 million in additional funding — amounting to $2,000 extra in per-pupil spending. This money allowed the school to provide after-school enrichment and tutoring, a summer "bridge" program for every grade, a college and career counseling office, and weekly field trips. The Parent-Teacher-Student Association at another school raised $100,000 in a single year, funding the school science fair, classroom libraries, the school's music program, and field trips.

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18 Schools accomplished this in different ways. Some integrated content-area instruction, such as social studies, into the literacy block; others reduced instructional time in other subjects.

19 See Barrow, L., Schanzenbach, D. W., & Claessens, A. (2015). The impact of Chicago's small high school initiative. *Journal of Urban Economics, 87,* 100–113; Leithwood, K., & Jantzi, D. (2009). A review of empirical evidence about school size effects: A policy perspective. *Review of Educational Research,* 79(1), 464–490.

20 Unterman, R. (2014). *Headed to college: The effects of New York City's small high schools of choice on postsecondary enrollment.* New York, NY: MDRC.

Schools also rethought how they used existing instructional time. One school built short, flexible "mini-periods" into the day so that grade-level and content-area teachers could attend to specific standards-aligned learning needs, such as foundational reading skills or multistep math performance tasks. A middle school reorganized its entire school day *midyear* to create a second English language arts block of small-group instruction in order to allow for more in-depth feedback on student writing. Multiple schools introduced school-wide silent-reading blocks, which both fostered students' reading fluency and created additional time for teachers to provide individualized support.

Schools also organized their schedules to ensure that role-alike teachers had overlapping periods for collaboration on instruction. Seven of our 10 schools embedded weekly professional development hours into the school day, with some providing more than three hours per week of teacher learning and collaboration. One elementary charter school constructed an academic calendar that provided an additional 75 minutes of daily teacher collaboration time during the last two months of the school year, with that time dedicated to planning for the subsequent academic year.

HIGH-QUALITY PROFESSIONAL LEARNING CULTURE

The schools we observed actively cultivated an attitude and orientation among staff of collaboration and ongoing learning in service of school goals. At schools with the strongest professional learning culture, staff conveyed significant pride about their school and spoke of shared values and high expectations for themselves, their peers, and their students. They described their work as challenging and demanding but also rewarding, precisely because everyone was invested. "There's that feeling that this is all of us together," said one teacher leader of her elementary school. "We hold arms while we're going through the struggle."

The principals had taken deliberate actions to build and sustain this culture of learning. They encouraged teachers to take ownership of programming and professional development, created and enforced norms and routines for collaboration, and provided opportunities for team building. These actions were most pronounced at the schools longest engaged in the instructional improvement process. Even after 10 or more years, principals were still devoting professional development time to team building, still training and coaching teachers on the school's behavior-management system, and still regularly monitoring internalization of the mission and vision. They used meeting protocols to make full and efficient use of collaboration time and boasted a high degree of camaraderie among the staff. "We make sure we always have a growth mindset and hold each other accountable," one elementary school principal said, noting the "informal norm" of collegiality and respect among faculty. Again, principals *created* this culture: They spoke of strategically staffing teams, engaging in all-staff relationship-building activities, and coaching teams on improving collaboration.

STAGES OF INSTRUCTIONAL IMPROVEMENT

Compared with standard instructional leadership practices, ambitious instructional leadership practices were more rigorous across four key dimensions: intensity, quality, intentionality, and the degree to which they were informed by and expanded critical knowledge. Another quality that distinguished instructional leadership practices at the schools we observed was their *alignment to school needs.*

In our past research on transformational school leadership,[21] we found that principals leading sustained academic growth consistently implemented a uniform set of actions in a particular sequence. In this study, we found a similar pattern regarding the *sequence of actions* that principals took to lead to higher standards. In general, we found that our study schools tended to fall into one of *three stages* in the journey to higher standards. The first stage focused heavily on establishing an ambitious instructional vision and putting in place the critical conditions for instructional improvement, the second stage on establishing or upgrading systems and structures school-wide, and the third stage on enacting the school's vision of ambitious instruction.

The CCR expectations represented a dramatic departure from prior practices at these schools, and thus the trajectory of instructional improvement at these schools spanned several years prior to the study and was expected to continue for many subsequent years. Accordingly, the principals we observed targeted their practices based on their school's stage within this longer trajectory. For example, in a less developed school, the principal focused on setting a vision for ambitious instruction and researching and selecting curriculum. By contrast, in a more developed school, the principal focused intensively on adjusting and refining curriculum and instruction. While principals never exclusively worked on just one focus area — regardless of their school's stage, they attended to school conditions, systems and structures, and enacting ambitious instruction — their primary focus shifted depending on the needs of teachers and students.

In this section, we define each stage and describe common characteristics among study schools in each stage. Further on in the paper, we provide recommendations for ambitious instructional leadership practices that can help principals advance to the next stage of improvement.

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21 Desravines, Aquino, & Fenton (2016).

STAGE 1: SETTING THE CONDITIONS

Stage 1 is characterized by a strong emphasis on setting the conditions for future change and the ability to sustain that change. Stage 1 schools were in the initial years of their improvement process — their principals had articulated a vision for the school's academic program, but the vision had not been internalized or enacted school-wide. The principals were focused on building buy-in for their vision and locating exemplars — either early adopters within the school or external partners — who could serve as models of what was possible and help propel progress.

At Stage 1 schools, principals were the primary creators and owners of the school's vision and improvement process. Principals at Stage 1 schools were *the* instructional leaders at their schools. They often had the greatest expertise about CCR standards, and they conducted virtually all teacher observations and coaching. They also led the curriculum creation or adoption process, and often facilitated staff professional development — particularly around learning or analyzing instructional practices. At one Stage 1 school, the principal trained and directly supervised paraprofessionals who were delivering small-group instruction.

At Stage 1 schools, preliminary changes to school-wide systems and structures often had an immediate and substantive impact on student achievement. Principals could point to specific changes they had made that led to gains — for instance, restructuring the school day to ensure chronically late students did not miss key literacy instruction, increasing the amount of time and number of staff members devoted to small-group instruction, or providing after-school tutoring. Principals at this stage were focused on building comprehensive structures for improving teaching and learning rather than attending to teaching and learning itself. They were organizing teams for collaboration, focusing professional development on specific instructional areas, and identifying resources and processes for targeted interventions. Stage 1 principals were quick to acknowledge that the quality of daily instruction at their schools varied widely from classroom to classroom. While a few teachers at Stage 1 schools consistently led instruction aligned to CCR standards, the overall academic and instructional rigor at these schools was often low.

STAGE 2: UPGRADING SYSTEMS AND STRUCTURES SCHOOL-WIDE

Stage 2 schools were in the midst of shaping a shared and sustainable strategy for instructional improvement. In these schools, leadership and/or the improvement process had been in place for several years, a majority of teachers believed in and supported the school's vision for improvement, and several teachers actively participated in the improvement process. These schools had a shared, school-wide instructional framework and/or curriculum, and their practices and processes were consistent and coherent.

A Note on School Stages

The stages we describe do not necessarily correlate with student achievement levels. A Stage 1 school with high proficiency levels may be succeeding despite conditions at the school, not because of them; a Stage 3 school may be significantly accelerating academic progress, but because of low proficiency among incoming students, it may not have high numbers of students meeting standards. What distinguishes the stages are scale and efficacy: the extent to which the school is taking up the work, and the quality of the work. For some schools, the complexity of the improvement process is such that it may take several years of sustained excellence to equal proficiency levels at schools serving demographic groups that historically have achieved above state and district averages.

Principals remained the central figures of instructional improvement — they continued to lead the design and often the implementation of observations, coaching, and professional development — but they had support from other instructional leaders, such as teacher leaders who facilitated learning communities or served as demonstration teachers. The amount of teacher collaboration and ownership in Stage 2 schools was notably greater than in Stage 1 schools.

Because Stage 2 schools enjoyed sustained buy-in and had developed shared systems and structures for instructional improvement, they could at least partially enact an ambitious vision of instruction. Schools at this level demonstrated consistency in the alignment of lesson plans to CCR standards and in daily instruction. All teachers followed their school's instructional model, though their effectiveness varied, and while some teachers were experimenting with inquiry-based instruction, the schools lacked a common language or expectation for its use. Stage 2 schools also had an assessment system in place, which emphasized unit- and interim-level assessments. Teachers examined assessment data on a regular but infrequent (e.g., quarterly) basis and used that information to inform unit planning. Professional development and coaching were focused on school-wide target areas of general pedagogical practice (e.g., increasing student talk or task rigor) but often were not intensive or individualized enough to consistently advance practice.

STAGE 3: ENACTING THE SCHOOL'S VISION OF AMBITIOUS INSTRUCTION

Stage 3 schools were characterized by the consistent implementation of ambitious, standards-aligned instruction. These schools had been working on instructional improvement for a decade or more, and had built on existing systems and structures to implement and monitor CCR-focused reforms. Stage 3 schools did not hire or retain staff members unless they believed urgently in the school's mission and were willing to participate in any effort to provide an exemplary education to students. As a result, the schools were characterized by a high degree of consensus and coherence. Though Stage 3 schools were often high-performing compared with district and state schools, they were not complacent. On the contrary, they leveraged their success to take risks and moved rapidly to make school-wide changes when they felt they were needed. Two Stage 3 schools in our study, for example, decided to overhaul already-ambitious curricula for literacy or math, and — within the span of two months at the end of the school year — completely revised instructional materials and provided intensive professional development to prepare for their use the following fall.

Stage 3 principals not only shared ownership of instructional improvement with their staff but also made building leadership capacity a priority. Principals apprenticed teachers into leadership roles, such as grade-level team lead, and created pathways for teachers to become instructional leaders or administrators at the school. All teachers at Stage 3 schools received regular feedback and coaching on the school's instructional model from peers and/or dedicated coaching staff. Principals at times provided direct instructional support to teachers but focused more of their attention on monitoring and coaching instructional leaders.

Stage 3 schools were organized for the implementation of ambitious instruction and the daily improvement of teaching and learning. Their curriculum was fully aligned to the standards, with clear and shared practices for instruction. Having a comprehensive, school-wide formative assessment system enabled these schools to make daily adjustments to small-group instruction. Both schools' philosophy and pedagogy emphasized individualization: Their curriculum emphasized student choice and exploration, and intervention systems supported all students in mastering grade-level tasks. Professional development and teacher collaboration were practice-focused, with teachers examining curriculum artifacts, student work, or teacher practice in nearly every team or all-staff meeting. Teachers regularly collected and reviewed classroom data, and instructional leaders used assessment and observation data to target and individualize coaching and professional development.

DISCUSSION

The new CCR standards demand much more from students, and teachers and leaders have to work harder to help all students achieve that higher bar. Compounding this challenge is the fact that many teachers have long relied on curriculum and instructional approaches that are *not* aligned to the new standards, and are being asked to adopt materials and methods that are unfamiliar to them. The evidence we have gathered from schools successfully making improvements indicates that helping all students become college and career ready demands a deep and shared understanding of the standards and their expectations for learning, a strong instructional vision informed by this understanding, and careful and continuous monitoring and refinement of curriculum and instruction to ensure this vision is brought to life in classroom practice.

The principals in our study were enacting many leadership practices that have long been identified as critical to school improvement, but the nature of CCR reforms — which involve not only new or significantly improved curriculum, but also new ways of leading classrooms and facilitating student learning — meant that they had to enact these practices with a far greater level of intensity and consistency. Indeed, leaders at the most developed (Stage 3) schools we observed had turned their schools into institutions of both student *and* adult learning. These schools developed knowledgeable teacher leaders and instructional coaches to increase instructional leadership capacity, and they put in place structures that allowed for intensive self-study, so teachers could deepen their expertise and master concrete instructional changes to move their students toward college and career readiness. At these schools, a deep understanding of and sense of purpose around the demands of the CCR standards shaped everything school leaders did: the process of curriculum selection and refinement, the content and design of their assessment system, the way in which they designed and delivered professional development, and the kind of coaching and feedback they provided to their teachers. At the same time, as school leaders implemented CCR-focused instructional reforms, their expertise grew, and they were able to introduce necessary changes at increasing levels of precision.

In the schools we studied, critical conditions greatly facilitated CCR-focused improvement work. Unfortunately, many schools do not have these foundational conditions in place. While it is imperative that schools move ahead with aligning their instructional core to CCR standards, at many schools, successful implementation may require principals to place primary attention on making the adjustments to staffing, schedules, and school culture that are preconditions to this work. To support principals in making these adjustments, district leaders should work to grant principals greater autonomy over budgets, schedules, and staffing decisions.

Finally, because the new standards ask schools to set as their goal a truly ambitious outcome — college and career readiness for *every* student — and achieving this goal calls for changes not just to *what* is taught but also to *how* it is taught, the process of improvement is likely to take several years. Indeed, our findings suggest that enacting CCR-focused reform at high levels of fidelity takes significantly longer than the three to five years prior research suggests is adequate to fully implement a reform.[22] The most developed schools we observed had engaged in instructional improvement efforts for 10 years or more. Our research indicates that school leaders who were making progress in advancing college and career readiness were not trying to change everything at once, but were instead identifying their schools' most pressing needs and taking actions that would have the greatest impact on movement toward ambitious instruction for all students. In the following section, therefore, we outline high-impact practices principals can take based on their school's stage of development.

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22 Borman, G.D., Overman, L.T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research.* Vol 73, (2), 125-230.

RECOMMENDATIONS FOR PRINCIPALS

Leading to higher standards is a journey, and the appropriate next steps for a principal depend on his or her school's stage of improvement. We recommend that principals begin by diagnosing their school's stage. For each developmental stage of improvement, we suggest a small set of high-impact practices tailored to school needs at that stage. To develop these recommendations, we identified key leadership practices at schools in a given stage of development, and compared them to key leadership practices at schools in the stage preceding and/or succeeding it. In this way, we identified differences in behavior that may have contributed to the schools' progress. Additionally, we reviewed interview data from principals leading schools in each stage to understand how they described their schools' progress over time. Using these two data sources in tandem, we developed the following recommendations.[23]

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23 This is not meant to be a checklist, nor is it meant to be an exhaustive unpacking of the possible solutions. The improvement process is complex, and each school is unique. Our goal is to start the conversation, not provide a detailed roadmap.

RECOMMENDATIONS FOR SCHOOLS JUST GETTING STARTED

A school is just getting started if:

- **it does not have a vision of instruction that is ambitious;**
- **the principal's role is not focused on instructional leadership; and**
- **the quality of daily instruction varies significantly across classrooms or is low overall.**

Principals who are new to a school or who have not yet initiated a comprehensive plan to align curriculum and instruction to CCR standards should start with building a vision, cultivating buy-in, and planning for ambitious instruction. Schools working to establish themselves in Stage 1 for instructional improvement should focus on the following steps.

BUILDING KNOWLEDGE ABOUT THE CCR STANDARDS AND ESTABLISHING AN AMBITIOUS INSTRUCTIONAL VISION BASED ON THIS KNOWLEDGE

Principals just getting started should grow their own knowledge — not just about the demands of the new CCR standards, but also about ambitious instruction. This process should begin with reading, or rereading, the state's standards and all of the appendices; reviewing state assessment blueprints and released items; and exploring respected websites related to the standards (see Appendix A). Principals may also want to visit high-performing schools in their area and carefully observe classroom instruction and, if possible, curriculum materials. High school principals could reach out to professors at local colleges to find out what skills and knowledge they think are deficient in entering freshmen. Once principals have this knowledge, they can map backward to an ideal vision of what teachers and students should be doing to build toward mastery. Principals should visit classrooms in their school to observe teaching and learning and to see how they compare to this ideal vision.

CREATING A MULTIYEAR PLAN FOR MOVING THE SCHOOL AND TEACHERS TOWARD THE END VISION

The next step is planning. Principals should start with the end in mind — their instructional vision brought to life in every classroom — and work backward, determining the steps needed to get there. For example, one principal in our study took over a school at risk for closure. He wanted to transition to a progressive, inquiry-based model of instruction, but he did not start by making changes to curriculum and instruction. Rather, he focused his first two years on building relationships with staff members, so that he had their trust and buy-in when he initiated substantive changes. Once the school was stabilized, he drew on that trust to rally stakeholders around a significant reform to teaching and learning, piloting the model in the school's entering-grade classrooms — where he placed his strongest teachers — and providing incremental, ongoing staff training as he rolled out the plan.

CHANGING STRUCTURES TO ACCELERATE LEARNING

Principals should identify structural or scheduling issues that are impeding learning opportunities, and make immediate changes to minimize them and increase learning time. Such changes could include changing the daily schedule to accommodate the learners with the greatest need, increasing the amount of time devoted to small-group or individualized learning, adding coaching or intervention staff, extending the school day, or putting arts or gym classes in the first period to encourage on-time arrival among chronically tardy students. Nearly every principal in our study reported that they made immediate and substantive gains early in their improvement process when they made one or a small set of changes to schedules or staffing that supported student learning.

IDENTIFYING LIKE-MINDED STAFF OR PARTNERS WHO CAN HELP LEAD THIS WORK

Principals should look for partners — staff members or other stakeholders — who share their vision, and test out and refine their plan with these partners. In particular, they should identify early-adopter teachers who are willing to pilot programs and pedagogies in their classrooms and facilitate subsequent teacher learning, either by setting up a demonstration classroom or by providing coaching to other teachers. Principals in our study also looked for staff members who could lead supporting initiatives, such as efforts to strengthen parent partnerships or improve data-collection systems. Many Stage 1 principals had strong relationships with an external partner, such as a principal coach or supervisor, who provided support.

INTRODUCING THE NEED AND VISION FOR MORE AMBITIOUS INSTRUCTION

Even if a principal is not ready to implement ambitious curriculum and instruction school-wide, he or she should seize low-stakes opportunities to expose teachers to ambitious instructional practices and demonstrate what it would take to achieve them at the school. Principals at this stage should focus on opportunities to study instructional practice, such as informal learning walks, collaborative lesson planning around a priority standard, or a review of a standards-aligned curriculum (e.g., EngageNY in Common Core states). They should also debrief with teachers about their experiences with different curricula and more ambitious instructional approaches — in particular, what they perceive as challenges, and what they feel they need in order to implement these practices on a regular basis.

RECOMMENDATIONS FOR STAGE 1 SCHOOLS

Stage 1 schools . . .

- **are in the initial years of improvement;**
- **have a vision for instruction that is ambitious (informed by an understanding of higher standards), but the vision is not internalized or shared widely by staff members;**
- **rely on the principal for instructional leadership;**
- **are focused on creating structures for improving teaching and learning rather than attending to teaching and learning itself; and**
- **have daily instruction that varies significantly in quality across classrooms or is low overall.**

Movement from Stage 1 to Stage 2 requires concentrated and comprehensive efforts to improve teaching and learning school-wide. To move into Stage 2, Stage 1 schools should consider the following.

ENGAGING TEACHERS IN THE PROCESS OF CREATING A RIGOROUS CURRICULUM MAP

Stage 1 schools have units or programs that lay out sequences of what to teach. To move into Stage 2, Stage 1 schools need a scope and sequence that addresses the CCR standards within and across grades comprehensively and meaningfully. Such a scope and sequence, or curriculum map, serves multiple roles: (1) It helps teachers build curricula aligned to the standards; (2) it ensures that every standard will be addressed over the course of the year; (3) it brings coherence across instructional plans, across classrooms within a grade, and across grade levels; and (4) it precipitates change at the classroom level, as teachers must revise their tasks and assessments to match the appropriate standards.

To move into Stage 2, therefore, principals should create time and space for grade-level or content-area teams to: (1) crosswalk existing curriculum to the standards, identifying where standards are and are not addressed; and (2) reanalyze the standards for their grade, identifying the opportunities and supports students need in order to master a given standard, and how those opportunities should evolve over the course of the year. They should identify when skills will be explicitly taught and assessed versus merely practiced, making sure standards are revisited at multiple points during the year. This process enables teachers to map the standards across units over the course of the year. A collaborative and in-depth curriculum-mapping process will deepen teachers' expertise about the standards and help ensure they develop unit and lesson plans that address the more rigorous expectations.

TARGETING A PARTICULAR INSTRUCTIONAL FOCUS FOR STUDY

Stage 1 schools should pick a focus area of the CCR standards — such as raising the level of text complexity or incorporating more argumentative writing — and determine the related expectations for teaching and learning. They should then map out a plan for how teachers will learn about these practices and implement them over time, including how teachers will study and plan for their enactment. This process may include organizing in-school research on the implementation of these practices — for example, learning walks and close monitoring of student data. It should also include school leaders working with staff to determine deadlines for implementation and refinement.

BUILDING CAPACITY FOR INSTRUCTIONAL LEADERSHIP

To carry out the more ambitious instructional leadership needed to help students meet CCR standards, schools need to increase their instructional leadership capacity. To move into Stage 2, principals should work to build instructional leadership capacity among staff members. Principals can position their instructional leadership team as professional development leaders, working with them to develop norms, practices, and activities for teacher teams and professional learning communities to apply and carry out. They can provide leadership coaching to grade-level or content-area team leads. The principal can also build expertise among teachers by crafting professional development plans for teams focused on particular instructional practices or on the development of long-term guidance documents (e.g., curriculum maps).

RECOMMENDATIONS FOR STAGE 2 SCHOOLS

Stage 2 schools . . .
- **are several years into the improvement process;**
- **have an established vision for instructional improvement that is largely supported by staff members;**
- **rely mostly on the principal for instructional leadership, but have some teacher leaders who facilitate professional development or model instructional practices in their classrooms;**
- **have a school-wide curriculum and a shared instructional framework, though quality of implementation varies across classrooms;**
- **have structures that enable regular opportunities for teachers to collaborate in developing curriculum maps and unit and lesson plans aligned to CCR standards, and in reviewing student data; and**
- **deliver professional development centered on a specific area of CCR standards–aligned instructional improvement.**

Stage 2 schools have achieved growth: They have raised and sustained academic and instructional rigor, with beat-the-odds student gains to prove it. In order to fully realize their vision, however, principals at this stage must seek excellence in teaching and learning school-wide. To move into Stage 3, Stage 2 principals must raise the intensity of their work around refining and improving curriculum and instruction. To move into Stage 3, schools should consider the following.

CLEARLY DEFINING AND SUPPORTING CONSISTENT EXPECTATIONS OF RIGOR THROUGHOUT THE SCHOOL

For Stage 2 schools to move forward, ambitious instruction must be implemented with fidelity in every classroom. In Stage 2 schools, teachers in specific grades or content areas may be utilizing ambitious instructional practices, such as Socratic seminars. To move to Stage 3, principals must support and hold all teachers accountable for implementing clearly articulated expectations of instructional rigor. Indeed, Stage 3 schools we observed had put such expectations in writing. They created instructional frameworks for the school as a whole and for specific grades and courses, and they wrote out protocols for instructional practices such as teacher modeling or student problem-solving.

To move into Stage 3, principals should consider creating one- to two-year plans, inclusive of both rollout and professional development, for raising the quality of instruction at their schools. Teachers should be involved in the planning process, which must take place well ahead of the transition — by piloting efforts in the previous quarter or semester, for instance — in order to gather feedback and develop targeted plans for collaboration and coaching to support school-wide implementation.

INCREASING THE FOCUS AND CONSISTENCY OF FEEDBACK TEACHERS RECEIVE ABOUT THEIR INSTRUCTION

Stage 2 schools provide greater amounts of informal instructional feedback than do Stage 1 schools — through monthly informal visits or feedback on unit plans. To move into Stage 3, schools must intensify the amount and focus of feedback. In Stage 3 schools, teachers receive feedback on instruction and lesson plans *weekly*. While Stage 2 schools find strategic ways to provide feedback with limited resources, such as by targeting specific teachers or specific elements of instruction, Stage 3 schools are organized in a way that creates a deep-seated culture of ongoing improvement.

To move into Stage 3, principals must go beyond looking for ways to increase the amount of feedback they give. Rather, they must strive to create a school-wide mindset where teachers seek out and welcome feedback. One important way to achieve this is by empowering teacher leaders — team leads, department chairs, specialists — to systematically provide feedback and support for colleagues. With the help of protocols on how to be a "critical friend," regular peer review is also useful. Another way to achieve this mindset is to increase the amount of collaborative planning. In fact, nearly all of the Stage 2 schools in our study were seeking to scale up the use of lesson study to all content areas. Finally, collecting and monitoring the feedback provided to teachers on lesson plans and instruction, as Stage 3 schools do, can help leaders better target teachers and practices that need support.

INCREASING THE FOCUS AND PRECISION OF CURRICULUM DEVELOPMENT AND MONITORING

Stage 2 schools use monthly or quarterly professional development days to create or adjust their instructional plans. To move toward Stage 3, this process of review and refinement must be conducted far more frequently. The most developed Stage 3 schools we observed were relentless about improving the alignment of their curriculum to the CCR standards and advancing their instructional vision. They consistently reviewed and refined upcoming units of instruction and debriefed recently implemented lessons, analyzing the resulting student performance data. These schools embedded curriculum-refinement opportunities into the weekly school schedule, with one teacher collaboration session during the week designated for planning and another session, often led by a coach, dedicated to reviewing teaching and/or student data. They also had an explicit expectation that teachers would plan outside of the school day.

Increasing efforts to improve daily instruction requires structural changes to the school schedule, such as creating an early-release day to free up time for teacher professional development, or aligning grade or content-area teachers' schedules so they have a formal planning period daily. Schools should also create norms and protocols so that collaboration time is maximized, and dedicate professional development time and coaching to helping teachers practice and internalize these approaches. It is equally critical that leaders foster teacher buy-in to the idea that continued work on the curriculum is essential to achieving the school's vision and mission.

RECOMMENDATIONS FOR STAGE 3 SCHOOLS

Stage 3 schools . . .

- **are many years into a sustained improvement process;**
- **have school-wide urgency around a vision of ambitious instruction, hiring and staffing based on alignment to that vision;**
- **build and distribute instructional leadership school-wide;**
- **focus systems and structures on monitoring and improving the fidelity of daily instruction; and**
- **ensure that the quality of daily instruction is consistent across classrooms and consistently meets or exceeds the level of rigor articulated in the standards.**

Stage 3 schools are learning organizations. As such, the primary improvement work they can do involves continually getting better at organizing and responding quickly to their ongoing learning. This process includes observing and giving feedback to teachers to inform subsequent professional development, coaching, and teacher evaluation efforts. It should also include using teachers' feedback on leadership practices (e.g., coaching systems) to further improve their effectiveness. Steps to consider include the following.

ENSURING THAT STAFF OWN AND CONTRIBUTE TO ONGOING ORGANIZATIONAL LEARNING

Stage 3 schools should ensure that all staff own and contribute to ongoing organizational learning. Teachers at Stage 3 schools in our study had numerous opportunities to contribute to the improvement efforts of the school. Along with collaborating to refine curriculum and instruction, they participated by helping refine the school's vision, providing timely feedback on initiatives, or leading pilots of potential instructional models or curriculum units. They also served as supportive "critical friends" to role-alike peers. Sustaining this level of participation is critical to the continued improvement of the school.

DEVELOPING INDIVIDUALIZED PROFESSIONAL DEVELOPMENT PROGRAMS, PARTICULARLY AROUND CAREER PATHWAYS TO LEADERSHIP POSITIONS

Stage 3 schools are not immune to challenges, some of which are a product of their success. For instance, teachers who work at these schools develop significant instructional — and often leadership — expertise, and many move on to administrative or managerial roles at other schools or at a central office, making talent turnover a perpetual problem. To counteract that issue, Stage 3 schools anticipate that some turnover is inevitable, maintaining careful succession plans and building a robust pipeline for all levels of staffing. They make talent development a core part of their work and institute formal structures for this purpose, dedicating money, resources, and staff time — including the ongoing involvement of the principal — to these efforts. To undertake such work, Stage 3 principals should start by imagining what a one- to two-year apprenticeship cycle might look like for an emerging teacher or leader, and cultivate staff members who are ripe for leadership development, especially in cases where their commitment to the school would increase with greater responsibilities.

RECOMMENDATIONS FOR DISTRICT LEADERS

Principals who are demonstrating success leading to higher standards have in-depth knowledge in three key areas — the demands of CCR standards, ambitious instruction, and effective leadership — which informs the enactment of key leadership practices at high levels of intensity, frequency, and focus. While principals do not necessarily need to engage in new instructional leadership practices, they do need to carry them out with more rigor and intentionality. This has important implications for district supervisors overseeing principal recruitment, selection, and support.

SELECTION

District leaders should consider all the knowledge and skills principals need during the selection process. Among this broader set of requirements, districts should consider two recommendations based on our research:

- Supervisors should prioritize candidates who demonstrate an understanding of the demands of higher standards and the elements of ambitious instruction. See Appendix A for examples of the types and level of knowledge we recommend considering.
- Supervisors should seek out candidates who have had opportunities to practice instructional leadership skills and have a record of success in leading teachers to more effective instructional practices aligned to CCR standards. In particular, we recommend giving preference to candidates who have had opportunities to practice the key practices outlined in this report.

PROFESSIONAL DEVELOPMENT AND COACHING FOR SITTING PRINCIPALS

- Supervisors should diagnose principals' knowledge in the three critical areas identified in this report, and design professional development to help principals build knowledge of CCR standards, cultivate ambitious instructional practices, and enact key instructional leadership practices that will support the shift to standards-aligned curriculum and instruction. See Appendix A for examples of the types and depth of knowledge that we recommend considering.
- Supervisors should build principals' understanding of rigorous instructional leadership practices through learning walks and job-embedded opportunities for coaching and feedback geared toward supporting ambitious instructional leadership. See Appendix A for examples of additional resources and organizations that can support this learning.

EVALUATION/SUPERVISION

- District supervisors should review their district's principal standards and evaluation rubric to ensure that the language reflects the rigor necessary to lead to higher standards. Districts do not necessarily need to adopt new frameworks, such as new principal standards and evaluation rubrics, if their frameworks already emphasize instructional leadership. But the demands on principals have increased, and documents that convey expectations should therefore be updated to reflect higher expectations for principals. Districts might consider focusing district-wide on one new expectation at a time, facilitating group learning activities that build a shared understanding of expectations across the district and simultaneously help to grow the necessary skills to meet those expectations.

DISTRICT CONDITIONS

- Districts should provide principals with the district conditions they need to be successful, as outlined in *Great Principals at Scale*.[24] Specifically, we recommend that district supervisors take steps to increase principals' autonomy over budget, schedule, and staffing decisions so schools can use resources, school hours, and talent management practices to enact ambitious instructional leadership by fostering the critical conditions described in this report.

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24 Ikemoto, G., Taliaferro, L., Fenton, B., & Davis, J. (2014). *Great principals at scale: Creating district conditions that enable all principals to be effective.* New York, NY: New Leaders.