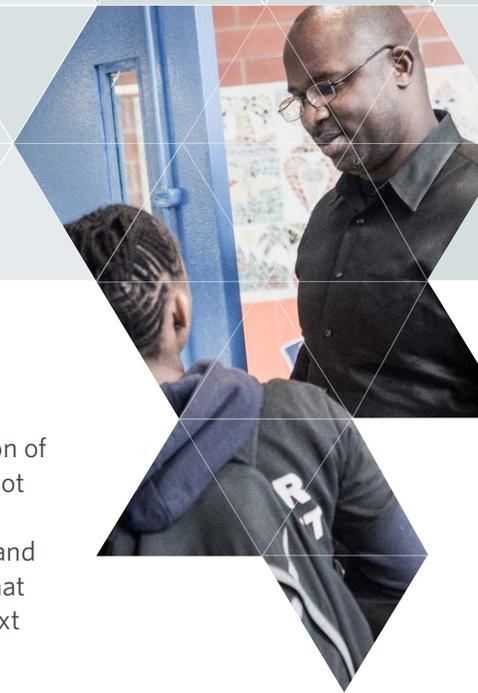


AMBITIOUS LEADERSHIP: A CASE STUDY OF SETTING A VISION FOR AMBITIOUS INSTRUCTION

JILL GROSSMAN AND BRAD CAWN



AMBITIOUS INSTRUCTIONAL VISION AS A DRIVER OF CONTINUAL IMPROVEMENT

Leaders who exemplify ambitious instructional leadership codify and pursue a vision of teaching and learning that is rich and complex. These principals establish a vision not only for their school as a whole but also specifically for the quality and rigor of its instruction. In other words, they articulate a desired state for how curricula, tasks, and pedagogical approaches will work together to support student learning, and why that instructional vision is critical to helping students achieve success not only in the next level of schooling but also in college, careers, and beyond.

In this case study, we examine two approaches to defining and bringing to life an instructional vision that emerged from our research at 10 schools. In the first approach — illustrated through the example of P.S. 125 in New York City — principals adopted an existing instructional program that they felt offered a rich learning experience aligned to their vision and made necessary adjustments to their school (e.g., reorganizing the schedule and building teacher capacity) and/or to the instructional program (e.g., integrating more grade-level texts or guided-reading time). In the second approach — illustrated through the example of Cornerstone Academy for Social Action (CASA) Middle School — principals developed their own ambitious vision for instruction and sought to create the programming and structures necessary to enact it. Regardless of the approach, our findings suggest the principal is both the key instigator and the guiding force for the instructional vision, and that this vision generates a commitment to — and process for — continually raising the quality and rigor of learning opportunities for students.

ADOPTING AN INSTRUCTIONAL MODEL TO ACHIEVE AN AMBITIOUS VISION AT P.S. 125

Reginald Higgins, principal of P.S. 125, a district pre-K-5 school in West Harlem, New York City, sought a grand vision for schooling within the confines of the normal constrictions of a zoned neighborhood school where 90 percent of students are Black or Hispanic, 86 percent are low-income, and 38 percent are classified as special education students.

When he arrived as principal, P.S. 125 was, said Higgins, 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 models’ 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 he developed an instructional vision that he felt would enable a “learning experience that creates the kind of intellectual engagement that the Common Core demands.” Informed by his understanding of the end goal for college-and-career-ready standards, Higgins envisioned a school with inquiry-based instruction and student choice, along with a heavy emphasis on arts and cultural programming.

To help set this vision in motion, Higgins decided the school would adopt the Teachers College Reading and Writing Workshop model. The Workshop model gives students significant choice in reading and writing and utilizes independent work, small-group instruction, and paired and class-wide discussion to “build habits of self-monitoring, sustained reading, and curiosity.” Schools that purchase the curriculum can also receive professional development from Teachers College, which Higgins saw as an opportunity to build his staff’s understanding of how to “teach in a more child-centered environment . . . of creating a classroom where more student voice is heard.”

Higgins could not simply forge ahead with implementing his vision, however. He had inherited a school with a veteran staff, and many teachers lacked the capacity, the will, or both, to change their approach. To build buy-in and enthusiasm, Higgins had to be strategic. He focused his early efforts on getting the school out of probationary status: He built trust and morale among the staff, improved the curriculum, led practice-centered professional development, and identified and developed targeted interventions for students with the greatest need. Once staff could see the school was improving, Higgins piloted the workshop model in pre-K and a single kindergarten class, building enthusiasm among early-grade teachers and raising interest among the rest of his staff. Meanwhile, he continued to build urgency and excitement among teachers for his longer term vision, 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 to support you.”

Higgins sees full implementation of his vision as taking roughly 10 years, with multiple stages and activities designed to gradually and sequentially build teacher capacity to bring to life ambitious instruction in every classroom. Though the school has only taken initial steps toward this vision, buy-in has grown, and progress is visible. The workshop model has expanded through second grade, and teachers receive monthly training in the methodology; classrooms and schedules have been rearranged, and nearly a dozen partnerships with New York-area arts and service providers support robust programming 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.

CREATING A UNIQUE INSTRUCTIONAL MODEL TO ACHIEVE AN AMBITIOUS VISION AT CASA MIDDLE SCHOOL

Since founding Cornerstone Academy for Social Action (CASA) Middle School in the Bronx eight years ago, Principal Jamaal Bowman has envisioned leading a rigorous learning community. During his time as a fourth-grade teacher, and then as a high school teacher and sports coach, he had watched students come to school with apathy and frustration. But, he said, they were children, so they still had hope and optimism. Creating a school that builds on that optimism, he said, “is what gives me a sense of purpose.”

Bowman’s vision for CASA is what he calls “holistic” education, inclusive of both high-quality content and social and emotional learning. “We want our students to be future leaders, future designers, future engineers,” said Bowman, “so our expectations are rooted in our goal of preparing students to change the world.” Bowman seeks to “expose students to everything,” and his instructional vision emphasizes “deeper learning, more metacognition, and more student ownership of their learning.” His ultimate goal is to realize a Montessori-style approach, in which students have tremendous control over their learning.

¹ See <http://www.geniushour.com/what-is-genius-hour/>

To bring this vision to life, Bowman has incrementally developed a curriculum and an instructional model that prioritize student choice, inquiry, and significant small-group learning time, with arts, technology, and hip hop enrichment infused into the weekly schedule. Bowman says the Common Core State Standards pushed him to deepen students' learning experiences still further. To provide more opportunities for sustained research, he instituted a twice-weekly "Genius Hour" class¹ that gives students opportunities to investigate a topic or problem of interest in a structured manner over the course of an eight-week cycle. He also revamped the science curriculum, pulling primarily from the city's newly developed science scope and sequence but infusing it with project-based science, technology, engineering, and mathematics (STEM) activities, and he collaborated with several external partners to put in place an arts curriculum in which students perform and publish in various mediums.

Bowman also restructured the school day so that students spent more time learning in small groups, and he made writing a major focus in all subjects. "Students are writing all the time," he said. Teachers meet regularly with students one-on-one or in small groups to give them detailed feedback, and benchmark performance tasks are given every six to eight weeks to assess student writing in one of the three Common Core genres — argumentative, expository, or narrative. Finally, Bowman has continued to focus on developing his teachers' capacity to lead Socratic seminars, which he sees as essential to developing the kind of thinking and speaking skills he wants student to master.

Bowman's expansive view of instruction extends to accountability. He is seeking permission from the district to switch from standardized tests to portfolio-based assessments, and to adopt an alternative approach to teacher evaluation based on peer review, student and parent surveys, and student portfolios. Despite his disinterest in standardized assessments, Bowman's ambitious model has resulted in significant increases in performance on state tests. In 2015, his school experienced the largest combined gains on state tests of any district middle school in New York City.

QUESTIONS FOR REFLECTION

What is your school's vision for ambitious instruction?

If you do not have a clear vision yet, consider the following:

- a) What tenets of good instruction do you expect teachers school-wide to enact daily?**
- b) What are the key practices and programming your school is using to help all learners become college and career ready?**

In what ways are the visions of P.S. 125 and CASA Middle School aligned to the tenets of ambitious instruction?

What role should college-and-career-ready standards play in informing and guiding an instructional vision?

What conclusions did you draw based on this case study about how to build initial buy-in for an instructional vision?

AMBITIOUS LEADERSHIP: A CASE STUDY OF ALIGNING ENGLISH CURRICULUM TO COLLEGE- AND CAREER- READY STANDARDS AT CARDENAS

JILL GROSSMAN AND BRAD CAWN



ALIGNING CURRICULUM FOR COLLEGE AND CAREER READINESS

The shift to the Common Core at the Lazaro Cardenas Elementary School, a pre-K to third grade school in a predominantly Latino area in southwest Chicago, rested on instructional improvement efforts Jeremy Feiwell initiated five years earlier in 2006, when he became Cardenas's principal. Feiwell knew from his years as a teacher at Cardenas that curriculum and instruction at the school varied widely — every teacher was doing something different in his or her classroom. Meanwhile, the school — where 52 percent of students are English language learners and 97 percent come from low-income households — was the lowest performing of the 23 schools in the community.

By 2016, the school was the highest performing in math in the south side of Chicago, and one of the top schools for reading. In 2015, the first year of the PARCC exam, the school had the highest overall scores in reading and math in its network: 43 percent of Cardenas students met or exceeded standards in reading, compared with the state average of 38 percent. In math, 47 percent met or exceeded standards, compared with the state average of 28 percent.

Cardenas's staff attributes a significant portion of the school's success in recent years to their work developing a curriculum that meets the demands of higher standards. Over the course of his tenure, Feiwell has established high expectations for all students, worked with staff in adopting a coherent school-wide curriculum, and intentionally built teacher capacity and responsibility for continually improving the content and delivery of this curriculum. In this case study, we describe the three phases of curricular improvement undertaken by Feiwell and his staff.

Throughout all three of these phases — although at varying levels of intensity — Feiwell has carried out the practices listed in the inset on the right.

Practices for Developing a Standards-Aligned Curriculum

- **Establishing and maintaining high expectations for all students:** The principal set the expectation that all students would meet the same high standards, and this expectation informed the design and implementation of curriculum.
- **Developing external partnerships to bring instructional expertise to the school:** Over several years, the principal secured grants from three different organizations to bring instructional expertise and training to the school.
- **Engaging teachers in the process of curriculum redesign:** The principal encouraged teachers to take ownership of the curriculum development work.
- **Maintaining a collaborative structure for revising lessons and curriculum:** The principal established norms and protocols around teacher collaboration, setting expectations that collaboration time would be used to develop, review, and refine unit and lesson plans.
- **Creating a schedule:** he principal created time in the schedule for teachers to step out of their classrooms and focus on writing curriculum.

PHASE 1: SETTING THE CONDITIONS

ESTABLISHING A STRONG INSTRUCTIONAL VISION

When Feiwell became principal at Cardenas, he immediately set the expectation that all students — including English language learners — would be held to the same high standards. He did so in two key ways. First, he created a bilingual pathway with dual-language instruction, and held himself and his teachers accountable for ensuring that English language learners were transitioned into general education classrooms by second grade. Second, he began monitoring student growth against uniform expectations and tracking the effectiveness of the curriculum through the school’s assessment system, the Measures of Academic Progress. Teachers in native-language or transitional classrooms might use different approaches to teach a lesson — perhaps using photos, more definitions, and in-depth explanations — but they would expose students to the same curriculum used in general education classrooms, and work with them to master the same concepts.

Feiwell also made some initial program changes to establish curricular and instructional consistency across the school. These changes included adopting Open Court — a scripted, phonics-based pre-K-3 curriculum — and adding one hour of intensive writing instruction to the daily schedule.

DEVELOPING EXTERNAL PARTNERSHIPS TO BRING IN INSTRUCTIONAL EXPERTISE

Feiwell obtained a five-year grant to work with Strategic Learning Initiatives on creating shared practices for teaching reading comprehension, such as teaching students to identify the main idea and the author’s purpose. When the Strategic Learning Initiatives grant expired, Feiwell partnered with Children’s Literacy Initiative to work with teachers on using writing about reading as a foundation for literacy instruction. Children’s Literacy Initiative provided professional coaching to Cardenas staff and helped them adopt common language and routines for daily instruction, such as mini-lessons on the main idea of a text and interactive read-alouds.

Feiwell also brought in the Illinois Writing Project, a state-level subsidiary of the National Writing Project, to help develop a school-wide writing framework. The new writing scope and sequence infused writing instruction across disciplines, and articulated the skills and genres students should master. After the school implemented the writing framework, English language arts proficiency at Cardenas started to rise. “Reading scores were going up because they were writing more,” Feiwell said.

PHASE 2: MAKING THE SHIFT TO THE COMMON CORE

When Common Core standards came out in 2010, Chicago Public Schools pushed all schools and teachers to develop and pilot a standards-aligned literacy unit. While most schools in the network felt ill-equipped to develop the new unit on their own, Feiwell decided that after several years of strengthening curriculum and instruction, his teachers had the ability to enact the shift without district support, and to do so for a full year’s worth of instructional plans. “At that point, our teachers knew what good reading looked like,” he said, and he decided that the school was “going to take the standards, figure out what our kids need to know . . . and figure out what do readers actually need to do over the course of the year to be successful readers.”

BUILDING BUY-IN

In 2012 to 2013 — the year before fully implementing the standards was a citywide requirement — Feiwell held a series of before-school meetings to dissect the standards with his staff. In these meetings, Feiwell presented the standards to teachers as an opportunity to improve the quality of instruction in their classrooms; he spoke to teachers about moving away from depending solely on their basal readers and developing their own standards-aligned literacy framework. Many Cardenas teachers initially felt anxious and overwhelmed, but Feiwell assured them that while the first year would be challenging, developing an in-house curriculum would give them more choice in how they taught their lessons. Said one district supervisor, “I think he messaged it as an opportunity for his staff; it came down to the mindset around collective learning that he established in the school.”

To support that mindset, Feiwell formed cross-grade groups of teachers and had them concentrate on the coherence and vertical articulation of literacy 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 really dissected what the standards were truly asking kids to do.”

ENGAGING TEACHERS IN THE PROCESS OF CURRICULUM REDESIGN

To make the curriculum design process more efficient and focused, Feiwell created an “Understanding by Design” team, and appointed several strong teachers to serve on it. The Understanding by Design team created a literacy framework that broadly outlined unit sequences and priority standards and specified strategies, focus areas, and essential questions for each unit sequence that would be addressed across the grades. “If I had tasked the whole school with coming up with the enduring understandings and essential questions, it would have taken an entire year,” Feiwell said. “You get a few smart people in a room, and they can knock out the hard part. Then you ask the teachers to knock out the part that relates to them.” The Understanding by Design team created a planning tool for each unit that teacher teams filled out, choosing texts and developing tasks that met the specified level of rigor for their respective grades.

Expectations for daily instruction were also set and embedded into the planning tools and process. Drawing on what they had learned from their work with external partners, the Understanding by Design team included expectations for guided reading, small-group and one-on-one instruction, opportunities for student collaboration, the use of mini-lessons, and the gradual-release model of instruction. To this day, teachers continue to draw upon what they learned from the Children’s Literacy Initiative about conducting effective read-alouds, such as focusing on one skill at a time (e.g., finding the main idea, making inferences) and building vocabulary.

DETERMINING BEST PRACTICE

With a newly established curriculum map and unit structure, teachers were able to adopt or create lessons that best attended to the skills or concepts assigned to the unit or lesson. Drawing on a variety of sources, including the previous basal reader, materials from EngageNY, and lessons they created on their own, teams piloted various approaches and materials to determine which lessons were most effective. Each team met weekly to plan lessons, revise units, and make adjustments in their lessons to fit their students’ needs — a practice they maintain to this day. One teacher said, “As we were teaching a text, we would say, ‘Wait a minute. We can’t do this right now — we haven’t built the necessary background knowledge.’” Feiwell advised teachers to add supplementary reading to give students the knowledge they needed, but warned them not to dumb down the standards-aligned texts they were already using.

PHASE 3: CONTINUOUS REVISION AND ADJUSTMENT OF CURRICULUM

Work on the curriculum did not end after the initial alignment process; rather, this process oriented administrators and staff toward continual revision and refinement. During the 2015–16 school year, and continuing into the 2016–17 school year, Feiwell and his staff undertook a new process of curriculum revision. Feiwell said he and his staff asked themselves: “Are our units as rigorous as they need to be? They might have been great four years ago, but are they where they need to be now, for our current population?” To enable the revision process, Feiwell gave teachers three full days of collaboration time beyond district-allocated periods in order to calibrate and complete their instructional plans.

CONTINUING CALIBRATION WITH STANDARDS

Teachers focused their work during these days on assessing and improving the alignment of their scope and sequence and their unit plans to the Common Core. Armed with a Common Core checklist for their grade, teacher teams rebuilt their curriculum map, articulating the week-by-week objectives, mini-lessons, and literacy skills and strategies that would be used to address the unit’s priority standards. They were particularly focused on tracking skill development across units and quarters and ensuring that students had opportunities to practice skills in increasingly complex contexts and with greater independence over time. These days also gave teachers numerous opportunities to discuss *how* to best teach these skills. The teams developed multiple drafts of their curriculum documentation, with the principal providing feedback.

INTEGRATING COMPLEX TEXTS

While the teams kept many of the foundational elements developed in 2012 — such as the essential questions of the unit, the aligned standards, and the reading skills and strategies to be taught — a review of formative and interim assessment data also compelled significant changes to the curriculum and lesson plans. Teachers were “much more intentional” about specifying expectations for complex texts, reading activities, and student learning for each unit. Feiwell required all grade-level teams to integrate interactive read-aloud and close-reading exercises into weekly lessons, and teams included a list of appropriate grade-level texts with each unit plan, indicating whether the texts should be used for read-alouds or close reading. Using Norman Webb’s Depth of Knowledge taxonomy, teachers also developed core tasks for each week and assigned them levels of rigor, which pushed them to develop more challenging tasks and to develop a more coherent sequence of assignments that built learning over time.

USING DATA TO ADJUST CURRICULUM AND INSTRUCTION

The process of curriculum revision has continued into the 2016–2017 school year. In 2016, Cardenas’s overall performance on the reading section of the PARCC exam dropped slightly, pushing the school to closely track curriculum implementation and student performance, and make necessary adjustments. Interim assessment data indicated that Cardenas students continued to struggle with vocabulary. Realizing that existing units did not address vocabulary development in detail, grade-level teams worked to identify a set of grade-wide vocabulary words for each unit, organized by week and by text. All teachers now teach these words, enabling the principal to monitor curriculum fidelity across classrooms.

SUPPORTIVE SYSTEMS AND STRUCTURES

MAINTAINING A COLLABORATIVE STRUCTURE FOR CREATING AND REVISING LESSONS AND CURRICULUM

Teacher collaboration has been critical to Cardenas’s robust curriculum and lesson planning work. “You want people to be individuals with their thought process, but team members at the same time,” Feiwell said, noting that he spends a lot of his time supporting teachers in striking that balance. He expects teachers to work together and provides time in the schedule for weekly grade-level team planning meetings, which are centered on the focus standards for the week. In these meetings, teachers discuss how the lessons went that week, identify areas where students still are struggling, and consider instructional materials and strategies they can use to help students learn the standards the next week (see below for an inside look at a grade-level team meeting).

At the same time, Feiwell does not expect his teachers to use the exact same instructional activities across their classrooms — he gives them some flexibility to determine activities based on their students’ needs. Their common understanding that teachers may choose different strategies to achieve the same collective goal allows disagreements to happen more naturally and respectfully.

Teachers highly value this collaborative time. “Our teaching is better because we are talking it through here; we are never scrambling during the week,” one teacher said.

The collaborative culture also makes teachers want to come to meetings prepared to share their best ideas. “We motivate one another to not only achieve the best growth in our students but the best growth in ourselves,” one teacher said. To ensure teams work well together, Feiwell looks to hire teachers who are collaborative. He is also intentional about how he puts together grade-level teams, giving consideration to personalities, experience, and skill sets.

The ongoing collaborative process of curriculum development and revision has deepened teachers’ buy-in and sense of ownership. “When we first began developing our own curriculum, we’d have teachers saying, ‘I just want a basal,’” Feiwell said. “But we’re saying that if you’re going to be at the top of your game, you need to be able to figure out what do kids need to know, what *do* they know, and how do you bridge that gap with your instruction?” Most teachers like this feeling of ownership, he said; collaboration with peers and coaching from Feiwell, his assistant principal, and the school’s instructional coach provide support for those who struggle.

CREATING TIME IN THE SCHEDULE FOR CURRICULUM DEVELOPMENT

When Feiwell first tasked teachers with developing a Common Core-aligned English language arts curriculum, he wanted to give them ample time for the work without making them stay late. He found money in the budget for substitute teachers to cover three to four full days of teachers’ classes over the year. Feiwell and his assistant principal also provided resources ahead of the meetings, such as graphic organizers and background research, and helped the teams set goals for each meeting. “It was like a war room,” one teacher said, adding that the teams were never disturbed or called out of the meetings. “The school essentially told us: ‘This is your only focus for this day.’” Feiwell continues this practice: In the fall of 2016, he hired substitutes so that his teachers could devote several days to finalizing the revision of the school’s literacy curriculum.

INSIDE A GRADE-LEVEL TEAM PLANNING MEETING

At a recent first-grade team meeting, all six first-grade teachers sat looking at the unit overview. That week, they had been working on quotation marks, and the next week would focus on the use of dialogue. One teacher suggested that they use the same text throughout the week for different lessons, such as vocabulary, meaning, and punctuation. They could do a close-reading exercise to build understanding and ask students text-dependent questions to help them understand the deeper meaning of the story.

The teachers chose *Hog-Eye* by Susan Meddaugh — a grade-level book recommended for kindergarten through second grade — and prepared for the close-reading portion of the lesson by identifying the primary questions they wanted students to be able to answer: “How did the pig outsmart the wolf, and how do you know?” The teachers then reviewed *Hog-Eye* together to identify evidence on how the pig outsmarts the wolf; they developed four questions to support children’s search for this evidence: “Why does the pig send the wolf to the garden? Why did the pig give the wolf precise instructions instead of just sending him to get it? Is there really a magic spell? How do you know?” Teachers agreed that they would pair up students to highlight evidence and then have each student write out his or her own response to the larger questions.

They brainstormed other activities. Since the focus of the lesson was on the use of dialogue, one teacher suggested having students create their own dialogue, giving them pictures and having them write speech bubbles with quotes inside. Later in the week, they would discuss how readers pay attention to rhyme and rhythm. At the end of the week, they planned to have students self-assess by explaining what they had learned and what strategies they had used.

For a writing workshop, they agreed the students were ready to work on their how-to books: Students would be researching an animal and writing a book explaining how to live like that animal. With a copy of Webb’s Depth of Knowledge in front of her, one teacher asked which level of the taxonomy conducting research was a part of. Another confirmed that “investigating” and “citing evidence” were both at Level 3. They talked about different books in their classrooms that could serve as models to help the students get started. Students would then be asked to research their animal, looking for evidence to draw upon. The teachers agreed students would work in groups for that portion of the lesson, and teachers would provide guidance. Later in the week, the teachers would help them further their research and demonstrate how to compose a paragraph, with modeling and writing together.

QUESTIONS FOR REFLECTION

How is Cardenas’s curriculum development process similar to yours? How is it different?

What practices did Cardenas’s principal put in place that enabled teachers to take ownership of the curriculum development process?

Continuous and targeted cycles of development were a key part of this school’s approach to programmatic and pedagogical improvement. What ideas does this give you about work on curriculum that your school should do?

Like many schools, Cardenas had limited professional development time to comprehensively revise the curriculum. What ideas does its process give you about how to leverage existing time, structures, and resources at your school in order to undertake meaningful program improvements?

AMBITIOUS LEADERSHIP: A CASE STUDY OF ALIGNING MATH CURRICULUM TO COLLEGE-AND-CAREER- READY STANDARDS

JILL GROSSMAN AND BRAD CAWN



CREATING A COMMON CORE-ALIGNED CURRICULUM

The alignment of the math curriculum to the Common Core State Standards has been a multiyear, iterative process at DC Bilingual Elementary Charter School in Washington, D.C., which educates all students in English and Spanish. Wanda Perez, DC Bilingual's former principal, began the process of aligning the curriculum to the Common Core before the PARCC tests were introduced in 2015. Under her leadership, student proficiency on the DC Comprehensive Assessment System grew by 30 points in reading and more than 60 points in math. When Daniela Anello took the reins as principal in 2014, she continued the work of aligning the curriculum to the Common Core, and the school has further advanced student performance. In 2015, the first year of the Common Core-aligned PARCC exams, 65 percent of DC Bilingual students scored at least a 3 (approaching college-readiness standards) on the English language arts test, and 64 percent did so on the math test, compared with averages of 44 percent and 56 percent respectively for the city at large. In fact, DC Bilingual — where 81 percent of students qualify for free lunch and 51 percent are English language learners — had the fourth highest percentage of third graders scoring a 3 or above in math of any D.C. school.

Perez and Anello, as well as the school's instructional coaches, say that their laser-like focus on adopting, adapting, and adjusting a rigorous, standards-aligned curriculum has been key to the school's success. They note that their work developing the math curriculum, particularly their repeated deep-dives into the standards, has been vital to growing

Practices Supporting Curriculum Alignment at DC Bilingual

- **Leveraging pedagogical expertise and distributing leadership:** The principal hired a lead math coach who had deep knowledge of teaching practices and the Common Core to lead the curriculum development process, and she appointed teachers with strong math knowledge to the math curriculum team. She provided professional development opportunities to help team members deepen their knowledge of the Common Core standards, pedagogy, and coaching.
- **Backward-mapping from the standards:** Instructional leaders created the curriculum by using the Common Core standards as a guide, reorganizing the standards as necessary to meet the needs of the school's community of students.
- **Articulating changes in instructional practice necessary to deliver the curriculum, and building teachers' capacity to enact and refine these changes:** Instructional leaders articulated necessary changes in lesson models and instructional practices, and supported teachers in mastering and continually refining them.
- **Regularly testing, observing, and revising curriculum:** Instructional leaders regularly observe classroom instruction and solicit feedback from teachers on lessons and unit plans, using that information to revise the curriculum.

their capacity to support students in meeting the higher expectations. Said one math specialist, “It really allowed me to better understand the content at each grade level, the primary goals of each grade, and what the rollout should be, particularly for the grade levels I have not taught. Unpacking the standards will continue to be a part of our work with our teachers.”

The curriculum development work at DC Bilingual is distinguished by several core practices, as described in the inset on the previous page.

CURRICULUM DEVELOPMENT PHASE 1: LEVERAGING EXPERTISE AND DISTRIBUTING LEADERSHIP

The school’s math department has been working on its math curriculum — including a vertical math map, scope and sequences, and unit and lesson plans — since the release of the Common Core State Standards in 2010, when Perez was still the principal of the school. At the time, DC Bilingual’s math curriculum looked like that of most schools, focused exclusively on teaching standard algorithms rather than developing conceptual knowledge. “Students memorized a procedure but did not know why they were doing it, and by the end of the year they might not remember how to do it,” a third-grade teacher said.

To help lead the school in the shift to the Common Core, Perez hired an expert in the standards and in conceptual math instruction — a former instructional coach in Prince George’s County Public Schools — to serve as the school’s lead math coach. The coach took over the work of developing the math scope and sequence and wrote one term of lesson plans for each teacher, pulling from several different sources, including the TERC Investigations curriculum and Math Solutions resources, both of which had concept-based lessons that incorporated time for students to reason and think critically.

The initial implementation of the curriculum appeared to have a positive impact on student learning. In the coach’s first year, the proportion of DC Bilingual students scoring proficient on the DC Comprehensive Assessment System rose by 15 percentage points. However, given the scope of the coach’s responsibilities — the school had hired several new teachers who would need intensive support the following year — Perez and the coach decided to discontinue developing a math curriculum from scratch and instead to adopt the TERC Investigations curriculum, while retaining some unit plans and lessons that had worked well the prior year.

When Anello became principal in 2014, she was aware that despite the gains in student achievement, there was still resistance among teachers to the shift to standards-aligned math. “Teachers have their own fears about math,” she said, and their own opinions about best practices. To help the coach address these challenges, Anello expanded the math team, creating math specialist positions for two teachers with strong backgrounds in math. Both specialists had taught at DC Bilingual for at least five years and had received significant coaching from the math coach on designing and implementing effective standards-aligned math instruction. One specialist noted that, as a second-grade teacher, she had worked with the math coach after school almost every day to review and refine her lesson plans and instructional materials.

CURRICULUM DEVELOPMENT PHASE 2: BACKWARD-MAPPING FROM THE STANDARDS

Members of the expanded team examined the evidence they had gathered on the newly adopted TERC curriculum¹ and quickly decided it was still not sufficiently aligned with the Common Core standards. Once again, they embarked on building their own curriculum. To get them started, Anello found money in the budget to bring in Math Solutions trainers for a two-day training session on curriculum development. After that training, the math curriculum-writing team — which included the math team as well as a kindergarten teacher who attended the Math Solutions training — met every Monday for two hours after school, as well as on the occasional Saturday, to brainstorm and debate the most effective materials and instructional approaches for teaching to the standards.

They launched the process by cutting up printouts of the standards for each grade, organizing them into themes and units that seemed logical based on what they knew about their students, and breaking them down into skills, concepts, and generalizations. They analyzed the standards, moved things around, and discussed how teachers could revisit standards in different contexts. They also addressed issues that had come up with the curriculum over the last few years. For example, they had noticed that teachers were not spending enough time on combinations of 10 and often had to return to that topic later in the year, so the team built more time for that focus area into the new curriculum.

As the team began working on units for each grade, they invited the teachers from that grade to participate. In most cases, at least one grade-level teacher joined them for planning. Once the units were laid out, the math team held meetings with each grade's teachers to get feedback. These meetings, in which grade-level teacher teams reviewed the units and the thinking behind them, built their knowledge of the standards, and their ability to assess the alignment of lesson and unit plans.

The math team also vertically aligned each unit, listing within each unit plan the focus standard for that unit, the foundation standard on which the unit was built, and the standard it built toward. In this process, they relied heavily on the progressions documents for the Common Core math standards published by the University of Arizona (<http://math.arizona.edu/~ime/progressions/>). They created a pre-assessment for each unit based on the progressions documents so that teachers — and students — knew what was expected from them in each unit and how it built on previous learning. The vertical alignment process involved not just content but also instructional strategies. “We thought about what math practices were going to be consistent from year to year and how to develop habits of mind from year to year,” the lead math coach said.

The team wanted teachers to understand from the scope and sequence how their year would unfold, so each unit plan included the relevant Common Core standards, describing the expertise students were expected to develop; major goals (e.g., understanding unit fractions as the basic building block of fractions, or recognizing equivalent fractions as different ways to name the same quantity); the essential questions students should be able to answer at the end of each unit (e.g., what is a fraction?); planning strategies, such as specific readings; and pacing guides.

As school leader, Anello encouraged and trusted the team. She co-observed math lessons with them and gave them feedback, holding them accountable for the lessons they produced and their implementation in classrooms. At the same time, she supported the team by providing the time and resources they needed to carry out the work.

¹ This was an earlier edition of the TERC elementary school math curriculum. A revised, Common Core-aligned edition was released in the summer of 2016. See <https://investigations.terc.edu/>

The teachers liked the clear connections drawn between the lessons and the standards. Said one teacher: “The standards are not just thrown at you. They’re broken down so you know what you are teaching. When we are grading, it’s not just, ‘Oh, you got it completely, so this is how you got a good grade.’ We have different levels at which the student is mastering a concept.”

At the end of each unit, coaches met with teachers to find out which lessons should be kept and what was missing from the unit plan. “We make sure that as the teachers are teaching it, that we are constantly reflecting on what changes we should make,” the coach said. Anello created a complicated schedule of grade-level meetings, vertical team meetings, data-and-planning days, and one-on-one coaching to support this work.

“I always want teachers to be focused on, ‘What’s the math behind this activity, and how does it fit into the developmental milestones of the kids?’” the lead coach said. “I want them to be thinking about not just, ‘What am I doing tomorrow?’ but thinking about a piece of data, and where students are developmentally, and whether you have a tool that is going to lay that out for them simply.”

ARTICULATING RELATED SHIFTS IN INSTRUCTIONAL PRACTICE

As the math team members developed the new curriculum, they also had to attend to changes in instructional practice that the curriculum required. For this reason, the pacing guide they developed broke out in detail a new way to approach lessons, which followed a “launch, explore, summarize” model.

In the launch phase for each investigation-based lesson, the teacher would make a connection between what students were going to do that day and something they had already done, or lead students in brainstorming about how they might get started on the problem. “The launch sets them up to do the heavy lifting with partners or independently,” one math specialist said.

During the exploration phase, students would tackle the problem on their own or in groups. During this time, the teacher would monitor and coach students, and ask probing questions. “It allows teachers to have a small group during that time,” another math specialist said. “It allows for a lot of flexibility to give targeted support within the classroom.”

In the summary portion of the lesson, students might complete an exit ticket if they had reached the end of a concept or skill, or the whole class might come together to participate in a discussion about the problem. “A lot of big ideas or strategies can come out of that conversation,” one math specialist said. The teacher would record the discussion on an anchor chart to make clear what the class learned that day and what students would need to work on the following day.

Lesson plans for each day included the estimated time to spend on each phase of the lesson, the standards addressed, objectives, routines, and a suggested menu of activities. The level of detail written into lesson plans varied: Some were laid out step-by-step; others were teacher point-of-view narratives taken from Math Solutions. Some lessons plans also provided more support in helping teachers figure out what the launch would be, where the explore phase should take place, and how to make connections to student objectives (“I can” statements). Lesson designs varied by day and grade level: Some included 45 minutes of problem exploration, and some included a mini-lesson that gave students time for independent work, fluency practice, or extensions of another problem.

As teachers taught the newly designed lessons, the curriculum designers looked for ways to revise and refine them. “We ask for a lot of feedback from teachers: ‘Did you feel comfortable teaching that lesson?’” one math specialist said. Because the curriculum writers were math coaches, they were in the classroom

every day to see first-hand how the lessons they designed were being taught. They also worked with small groups of students as interventionists, so they could see what students were struggling with, and they used that information to revise instruction and the curriculum.

DEVELOPING ASSESSMENTS ALIGNED TO THE COMMON CORE

As the team wrote the curriculum, it was also necessary to design aligned interim assessments. To do this, they pulled from external resources, including Math Solutions, Illustrative Mathematics, Inside Mathematics, and PARCC. School leaders emphasized that they did not want teachers doing test prep with the PARCC exam, but they did want them to deeply understand what the test was looking for so that they could help students develop the conceptual knowledge necessary to tackle any question. The school used data from these assessments, as well as from classroom observations, to inform three- to four-week coaching cycles focused on areas for instructional growth, and to adjust and refine the curriculum.

CURRICULUM DEVELOPMENT PHASE 3: REGULARLY TESTING AND REVISING THE CURRICULUM

Even with such comprehensive efforts, some teachers pushed back on some of the curriculum changes. Because Anello regularly gathered feedback from teachers, she and her math team came to understand the root causes of the resistance. In surveys and conversations, teachers complained that the inconsistent structure of the curriculum — which drew lessons from varied sources — made lesson planning difficult. For example, some lesson guides included questions for teachers to ask their students, while other lessons required teachers to write their own questions.

Anello also realized — after hearing teacher feedback, observing coaching meetings, and reviewing teacher and student performance — that one coach on the math team was not a good fit for the role, and decided to let her go. With one less member, the math team had to rethink its work moving forward. Team members felt they had built a solid foundation of content knowledge among the grade-level teams over the last year through the unit studies, but they determined that they could not continue to write and revise units at the same level of intensity and still maintain their coaching and intervention work.

Happily, TERC had just released a new Common Core-aligned math curriculum. Teachers liked TERC's clear and consistent structure, and the math team liked that its lesson model of "launch, explore, summarize" was consistent with how many of their math lessons were already designed. To decide whether to adopt the TERC curriculum, the math team went through the DC Bilingual math curriculum for each grade level, examining what percentage of lessons were from TERC. The team also reviewed which lessons had been most successful in terms of student performance and teacher feedback. Following this review, and after conferring with the Anello and the school's academic lead, the team decided to adopt the new TERC curriculum.

The team set a goal of having 80 percent of each teacher's math lessons come from TERC, which left room for teachers to pull from non-TERC lessons, should the math and grade-level teams identify gaps in the TERC curriculum. The math team already knew, for example, that they would supplement TERC's third-grade curriculum with lessons from their prior curriculum that used manipulatives to teach fractions. "We are critical consumers," one of the math specialists said.

CURRICULUM REFINEMENT IN ACTION

Two math coaches led a first-grade math team meeting focused on laying the groundwork for computation fluency in the early elementary grades. After reviewing the meeting agenda with the team, the lead coach distributed a map of the school's K-2 math fluency progression. The progression started with knowing the number names, then moved to counting out objects, parts of 5, combinations of 10, and finally $10 + n$. To the side of the map, the coach had inserted the Common Core standard the progression comes from: *Add and subtract within 20, demonstrating fluency for addition and subtraction within 10, as well as some of the strategies associated with that standard.*

"Think about the progression and where your kids might fall as you are teaching computational fluency," the coach said. "What's that big hurdle we want to get over?"

The teachers discussed the trouble some of their students had been having with counting on. The lead coach noted, "Counting on is largely developmental. You need to give them that meaningful practice."

As is typical in these meetings, the lead coach then distributed student-level data from the most recent first-grade assessments. "Think about what you are already doing to support the kids," she said. "How can this data be on your radar every day to design those number talks?" One teacher later noted a common mantra from the coaches: Do not wait too long to assess, but assess frequently so that you are in touch with where the student is, where the student needs to be by the end of the term, and what you are going to do to get them there.

One first-grade teacher said she had been struggling because her students were in such different places: Some students could add groupings of, for example, three and seven dots, while others had to count them out one by one.

Pulling from strategies outlined in the math curriculum, the coach suggested the teacher use a 10-frame to help the student. "We want kids to be relating to the 'ten-ness,'" she said. "Be really strategic about the model you use in the number talk that day."

The math specialist then introduced the teachers to a math activity she wanted them to try with their students, one that was not a part of the curriculum but that one of the teachers had used successfully in small intervention groups. The coaches devoted the next 15 minutes of the meeting to having the teachers try out and analyze the activity. First, a coach demonstrated how the activity was done; then the coaches divided the teachers into pairs to try it out themselves. The coaches observed each pair as one teacher played the student, the other the teacher.

The lead coach told the teacher who was playing the teacher role, "Ask, 'Can you pick up five?'" The teacher asked the question to her partner.

To the teacher playing the student, the coach said, "Say, 'I can. I can pick up the red four and the blue one.'"

"Is there another way?"

"There is another way. The orange three and the yellow two."

The math coach had the two teachers continue to practice the activity.

In thinking about how the teachers would talk about the activity with their students, the coach advised, "One sort of meta thing to be aware of in your instruction is, 'How often do we ask kids to count off?' Maybe we should ask kids how they 'found out' rather than asking them to 'count off.'"

The coach asked the teachers to spend the last few minutes of the meeting thinking about where in the lesson they would insert the activity, and asked them to let her know their plan. Finally, she gave them an article to read on mastering fact fluency.

When the math specialists shared the planned curriculum change with teachers in a session toward the end of the school year, teachers were enthusiastic and, said one specialist, felt “that their input on the curriculum had been valued.” During the session, the math team gave teachers the scope and sequence for the following year, which was broken down into lesson names, standards, and brief descriptions. The math specialists also led teachers through a gallery walk of lesson- and unit-plan templates to get feedback so they could revise the templates to better suit their planning needs for the following year.

This planning session was only the first step in implementation. Starting in August, the coaches would meet with teachers to review each unit, identify lessons to include and omit, and address content concerns two weeks before each unit rolled out. Teachers would be expected to read the “About the Unit” summary before these planning meetings and would receive professional development.

To continue the curriculum refinement process, the coaches created a simple rubric that teachers could use to rate the effectiveness of each lesson. Teachers would base the rating — from 1 to 4 — on their perception of the effectiveness of the tasks in the lesson and on student data. Additionally, because teachers taught each math lesson two times a day, the math specialists planned to track any increases in ratings between the two lessons, and ask teachers to explain any tweaks they made that led to the higher ratings.

QUESTIONS FOR REFLECTION

Discuss what this case implies about (a) the role of the principal in developing high-quality curriculum, (b) how responsibility and leadership for curriculum can be distributed, and (c) how professional learning communities and/or teacher teams can contribute to ongoing program improvement.

Who were the key stakeholders, and what role did they play in implementing a new math curriculum at DC Bilingual?

What implications does this case study have for your own classroom, your content-team work, and your grade-level work?

Many critical choices were made throughout this case study. Identify the three most important choices you think the school made. Who made the decision? Why do you think that decision was made? What was the impact?

Adopting a vendor-created curriculum was a key part of the curriculum development at DC Bilingual. What insight or guidance does this case study give you about adopting and adapting a curriculum and related instructional practices at your school?

If your school does not have dedicated personnel to oversee or develop curriculum, how might teachers and other staff approach the key practices described in this case study?

What questions does this case study raise for you?

AMBITIOUS LEADERSHIP: A CASE STUDY OF DATA-DRIVEN INSTRUCTION AT KIPP COMIENZA

JILL GROSSMAN AND BRAD CAWN



USING DATA TO INFORM INSTRUCTIONAL IMPROVEMENT

At KIPP Comienza Community Prep — an elementary school in Huntington Park, California, where 94 percent of students qualify for free lunch, and more than 60 percent are English language learners — most kindergarteners start out well below pre-reading levels. In 2015, however, just a few years after these students walked in the school doors unable to identify the letters of the alphabet, 81 percent met or exceeded standards in English on the Common Core-aligned Smarter Balanced Assessment Consortium (SBAC) assessment; 82 percent did so in math. The school ranked eighth in Los Angeles in overall performance (the average Los Angeles school had 33 percent of students proficient in English, and 25 percent proficient in math) and first among schools serving low-income English language learners. Even more striking, KIPP Comienza was the highest performing school in the nation on the math portion of the SBAC.

Principal Shirley Appleman attributes her school's success in shifting to college- and career-ready standards to the robust use of data. "I need to make sure the data show that we are making decisions that are best for our kids in this moment," she said. Using data at this level of consistency and rigor — so that it informs instruction every day, in every classroom — requires substantial planning and organization. To ensure that student data drives every decision about instruction and curriculum at KIPP Comienza, Appleman and her team maintain several essential practices as listed in the inset on the right.

Practices Supporting Robust Data-Driven Instruction at KIPP Comienza

- **Setting goals:** The school leaders and teachers use the previous year's assessment data and network goals to set targets for student achievement.
- **Frequently collecting a variety of data for monitoring and attending to progress toward goals:** Teachers give students standards-aligned assessments multiple times a week (e.g., end-of-lesson exit slips), every other week, at the end of each unit, and quarterly. Other data points include frequent classroom observations and note-taking (teachers of students, school leaders of teachers), adaptive technology, and surveys.
- **Applying that data to all school practices for the sake of improving student learning:** Data is used to differentiate instruction (e.g., with across-grade reading groups), and to design professional development.
- **Creating and regularly revising tools to facilitate frequent and consistent data tracking and analysis:** Protocols guide teacher discussions around data. Online data trackers (stored as Google documents) give all staff access to data and enable them to analyze data across classrooms, grades, and the entire school.
- **Creating systems of support and accountability:** The principal designed the school schedule to allow for frequent collaboration around data among teachers and instructional leaders (the principal, deans, instructional coach, and grade-level leads). Biweekly data meetings are held between principals and deans; deans and teachers (both one-on-one and in grade-level teams); and among same-grade teachers.

SETTING GOALS

Each summer, Appleman and her leadership team set school-wide goals for the following year for the SBAC, Measures of Academic Progress (MAP), standards-aligned interim assessments, reading levels (using Strategic Teaching and Evaluation of Progress [STEP] or Fountas & Pinnell), special education, and school health (attendance and student attrition). To establish these targets, they look to both KIPP LA Schools' goals for the region and KIPP Comienza students' performance on the previous year's assessments. The higher number guides the target for the upcoming year. For example, KIPP LA recently set the proficiency goal for the region at 60 percent proficient on the SBAC English assessment. Since 81 percent of KIPP Comienza's students had scored proficient the previous year, Appleman set a goal of 85 percent proficiency for her students.

Once Appleman and her leadership team set the annual targets, the entire staff works together in the weeks before school starts to set benchmark goals for each cycle. "This is where the teachers do the calculating and the heavy lifting," Appleman said.

The leadership team looks at both school-wide end-of-year targets and student ability at the start of the year. Using a protocol as a guide, teachers determine what each student's trajectory would need to look like to meet the end-of-year goal. Specifically, they analyze end-of-year targets, assess incoming reading levels, define ideal reading growth in each grade level, and examine past achievement. Then, teachers use backward planning to determine interim benchmarks. As Appleman explained, they ask: "Based on ideal reading growth, where should most students be by the end of Cycle 2, and mid-Cycle 4? In an ideal world, what's the breakdown you want to see at each benchmark?" For example, at the beginning of a recent school year, 22 percent of third-graders were reading below grade level; the third-grade team determined that 13 students needed to reach a Fountas & Pinnell reading level N (proficient) by the end of Cycle 2 to meet the grade target of having 90 percent of students at least proficient in their reading level.

The teachers are not left to carry out this work alone. Appleman and her deans facilitate the grade-level conversations, mindful of the fact that, as Appleman explained, "From a teacher's perspective this can be really scary, since they have to be the drivers of this work and of the outcomes." In the grade-level team meetings, she and her deans ask guiding questions and ensure goals are ambitious yet realistic.

After the first and second cycles, grade-level teams compare students' actual performance with the targets, and begin to balance ambition with reality. This process guides teachers in identifying the interventions students need — whether it involves extra guided reading, reassigning a teacher, or morning intervention work, Appleman said. "We identify who the focus students are, and we keep track of them during that cycle and make sure they are moving up and making progress."

FREQUENTLY COLLECTING A VARIETY OF DATA FOR MONITORING AND ATTENDING TO PROGRESS TOWARD GOALS

Appleman and her predecessor created a system for collecting a variety of data to inform instructional differentiation and professional development, and to help identify effective instructional strategies. Teachers assess student learning with exit slips multiple times a week, and with every-other-week and quarterly end-of-cycle assessments aligned to standards. The deans observe teachers weekly, recording feedback and next steps in an online spreadsheet accessible to coaches and the leadership team. Appleman also performs her own classroom walk-throughs to identify trends across teachers and subjects. Teachers keep running records of some lessons, and Appleman and her team periodically survey staff on school climate and the efficacy of professional development.

The staff has put significant time and thought into designing each assessment, ensuring it is aligned to standards. “It all starts with me doing the research and figuring out, ‘What is the SBAC, how is it organized?’” Appleman said. “Then I relay that to my staff.” In the 2014-15 school year, she and her leadership team took advantage for the first time of the materials that were available on the SBAC website. They examined the blueprint for how the tests are organized, the practice materials, and the item specifications. They identified the question types and the language that appeared most often or most significantly on the SBAC assessments, and correlated those item types to the standards. When designing the school’s own assessments and calendar of objectives, the staff included those item types and ensured that they exposed students to all of the standards over the course of the school year. In sum, Appleman and her staff aligned their curriculum map to the design of the SBAC exam.

Teachers create their own assessments using a matrix designed by the leadership team that aligns standards with question types. For each Common Core standard, the matrix (see Exhibit 1) lists the Bloom’s Taxonomy level, cognitive function, “stem” — or questions teachers can ask to help monitor progress toward mastering standards — and the related skills from the standardized assessment. “It is important that we plan with the end in mind and have a clear picture of what we want students to know and be able to do by the end of the year,” advises an assessment criteria document. Assessment design starts in the spring for the following year, when the grade-level teams create the first two assessments they plan to give in the fall. The sample questions included in the matrix facilitate this process, and teachers take the tests themselves, thinking through the questions and how they would respond. Coaches then review the assessments and give feedback.

Assessments Used to Analyze Student Progress Toward Goals at KIPP Comienza

- Daily probes and diagnostics (e.g., running records)
- Common formative assessments multiple times a week (e.g., exit slips)
- Every-other-week assessments aligned to standards
- End-of-unit standards-aligned assessments
- Quarterly end-of-cycle assessments
- Smarter Balanced Assessment Consortium (SBAC) assessment
- Guided reading assessments every four to six weeks with Strategic Teaching and Evaluation of Progress (STEP) or Fountas & Pinnell

EXHIBIT 1. KIPP COMIENZA STANDARDS - STEM MATRIX (KINDERGARTEN)

Common Core Standard	Bloom’s Taxonomy Level	Cognitive Function	Stem	MAP Skill
Use frequently occurring nouns and verbs	Understanding	Evaluative reasoning	<ul style="list-style-type: none"> • How can we tell if a word is a noun? • How can we tell if word is a verb/action word? • Which words tell what the people are doing? • Can you circle the verb in the sentence? • Can you circle the noun in the sentence? • How did you know that ____ was the verb/noun? • Which verb/noun best completes the sentence? How do you know this? • Write a sentence. Can you circle the verb and underline the noun in your sentence? • How could we correct the noun/verb in this broken sentence? 	<ul style="list-style-type: none"> • 162: Identifies the spoken sentence with correct past-tense verb usage (text not shown on screen). • 162: Identifies the spoken sentence with correct verb usage (text not shown on screen). • 166: Identifies a verb to complete a given sentence. • 167: Identifies the action word in a given sentence. • 167: Selects the agreement (do).

CREATING AND REGULARLY REVISING TOOLS TO FACILITATE FREQUENT AND CONSISTENT DATA TRACKING AND ANALYSIS

After they collect assessment and observation data, grade-level teams meet to analyze the data and discuss implications for instruction. To offer support and ensure accountability, deans meet with teachers one-on-one to discuss what the trends mean for their classrooms and to determine immediate action steps.

Teachers are expected to go to grade-level team meetings and one-on-one meetings with their deans prepared to talk about data. “They should know their students, where they’re projected to land on assessments, and bring in students’ work to show misconceptions,” said Appleman. She expects the deans to be just as familiar with the students and their assessment results. During dean coaching sessions with teachers, which Appleman occasionally observes, Appleman looks for the deans to push teachers to examine the data and determine next steps to support students. Appleman meets with her deans at least twice a week to talk about strategies, next steps, and relations with and among teachers. Appleman also makes a point of becoming very familiar with the data, so she is able to ask coaches during their meetings about the performance of particular classes.

To ensure these data discussions are consistent across the school, KIPP Comienza’s founding principal designed a data protocol, which the entire KIPP LA network has since adopted. Appleman continues to rely on this protocol, working with her staff to refine it as needed.

The protocol for team data meetings (see Exhibit 2 for an overview) lays out the following actions:

- Identification and discussion of the contributing factors that led to the assessment results.
- Acknowledgement of growth and identification of individual students and classes of students that are struggling with particular skills. Teams look at how students responded to assessment questions and discuss whether their struggles seem to be with content or question format. They determine “vitals,” or areas in need of improvement. The protocol advises, “Your vitals should signal clear and explicit next steps that, without a doubt, increase student achievement.”
- Development of action steps that are measurable and attainable to address areas of struggle.
- Reflection on team dynamics and discussion of areas of support.

EXHIBIT 2. KIPP COMIENZA DATA PROTOCOL OVERVIEW

Data	What are the areas of mastery in the performance data? What are the areas of growth in the performance data? How are we doing against our goals?	<ol style="list-style-type: none"> 1. Disaggregate the data to determine the trends in student success. <ol style="list-style-type: none"> a. Identify areas of mastery. b. Analyze mastery of each area. 2. Disaggregate the data to determine trends in student success roadblocks. <ol style="list-style-type: none"> a. Identify areas of growth. b. Analyze missing mastery of each area. 3. Evaluate distance from academic goals. <ol style="list-style-type: none"> a. Determine overall achievement gaps. b. Analyze range of student performance.
Vitals and next steps	What content and structures are needed to support greater student achievement? What focused action will lead to greater student achievement?	<ol style="list-style-type: none"> 1. Identify key data points that signal your next steps. 2. Prioritize content for intervention. <ol style="list-style-type: none"> a. Identify standards or skills most impacting mastery. b. Determine structures and benchmarks that measure progress. 3. Develop next steps that are measurable, attainable, relevant, and specific.

The grade-level teams record and share data in an online spreadsheet, which is updated after each assessment. Exhibit 3 shows a sample from a first-grade end-of-cycle assessment analysis.

EXHIBIT 3. KIPP COMIENZA FIRST-GRADE END-OF-CYCLE ASSESSMENT ANALYSIS

Classroom Performance in ELA by Homeroom*												
Class	P/A #	P/A %	A #	A %	P #	P %	B #	B %	BB #	BB %	FBB #	FBB %
A	23	77%	14	47%	9	30%	7	23%	0	0%	0	0%
B	24	80%	12	40%	12	40%	6	20%	0	0%	0	0%
C	22	76%	9	31%	13	45%	6	21%	1	3%	0	0%
D	22	76%	15	52%	7	24%	5	17%	2	7%	0	0%

* P/A = Proficient/Advanced; A = Advanced; P = Proficient; B = Basic; BB = Below Basic; FBB = Far Below Basic.

EXHIBIT 4. KIPP COMIENZA FIRST-GRADE CYCLE 2 VITALS

Cycle 2 English Language Arts Vitals
Maintain 91 students at P/A (move 21 students to A).
Move 8 students identified as “bubble” students (those who are 3 points from proficient).
Cycle 2 Math Vitals
Move 27 students to Level P/A.
Keep 60 students at A and P.
Move 4 students to A.

In the spreadsheet, teachers list students who did not score proficient, their scores, where the breakdown in learning was (the skill, concept, and standard), and ideas for corrective instruction. In a recent analysis of a reading comprehension assessment, a teacher listed a few students who scored far below basic: Their handwriting was illegible, and they struggled to answer when asked to verbally explain their answers on similarities and differences in the text. In a math assessment analysis, a teacher noted that a few students did not carefully distinguish between the words “more” and “less,” and other students struggled to transfer knowledge about tens and ones place value to a number sentence. The breakdown in understanding, the grade-level team noted, was not reading the last page of the test carefully. The teachers planned to address these deficiencies with students either one-on-one or in small groups.

How does all this data work translate to the classroom? For one thing, teachers create reading groups across grades based on assessed reading levels (during guided reading time, students move between classrooms to get to their groups). Teachers also use data to divide their students into small groups based on their level for a particular lesson. At KIPP Comienza, it is common to find one group of students working on a lesson at the board with the teacher, and a few other students working independently — reading a book, or working through math problems, or at computers using programs targeted to their English

language arts or math level. When the teacher is done giving the lesson to one group, students circulate so that everyone gets targeted instruction time with the teacher. In a recent kindergarten class, a group of students worked with the teacher on identifying words requiring capitalization in a set of sentences and writing the sentences correctly, while a smaller group worked with another teacher on capitalization but with a focus on learning to read the words in the sentence. The staff make every instructional and student support decision using evidence of student progress.

CREATING SYSTEMS OF SUPPORT AND ACCOUNTABILITY

Teachers and leaders at KIPP Comienza attribute their data system's success in part to the collaborative structures in place at the school. "We all need to talk about the data because we are each responsible for each and every student," Appleman said, a sentiment she expresses often. Appleman prioritizes developing relationships and trust among her staff, and has organized the schedule so that teachers not only have time to eat lunch together and share prep periods but also have time to participate in several layers of meetings to examine and analyze data. The data meetings are "at the core of how we run the instruction," said one of the school's instructional deans. "These meetings determine the next steps that we take; they tell us what our kids need while we are teaching, who the students are who need specific things, and who the teachers are who need support." The frequent meetings, Appleman added, ensure accountability not only within grades but also across the school.

The KIPP Comienza school schedule includes time for the following data meetings:

- The principal meets biweekly one-on-one with each dean, and once or twice a week with her team, which consists of one instructional coach and three deans (for kindergarten, first and second grades, and third and fourth grades).
- Deans meet one-on-one with teachers at least biweekly.
- Grade-level teams meet biweekly, led by grade-level team leaders. Deans sit in on these meetings, participating as needed.

IN ACTION: USING THE DATA PROTOCOL ACROSS STAFF MEETINGS

Observation of collaborative meetings among various staff members makes clear how the data protocol is used across the school. This section describes a grade-level team meeting, a meeting between a dean and a teacher, and a coaching conversation between the dean and the principal, all of which were held over two days in February 2016.

THIRD-GRADE TEAM MEETING

The four third-grade teachers held their biweekly meeting to analyze results on the most recent assessment, an end-of-cycle test of both math and English language arts. The dean and grade-level team leader had together set the objectives for the meeting.

Using the school's data step-back protocol, the team started out by discussing the aims for the meeting. They would review whether the identified "vitals" — or areas in need of improvement and next steps — from the previous unit's step-back had led to higher student achievement in the next unit, and they would draft vitals to address in the next unit of study based on this cycle's assessment results.

With copies of the math assessment in front of them, they pulled up the math assessment results on their web platform (Illuminate). Looking at results for the whole grade, they identified the problem on which students were least proficient, and discussed students' misconceptions. One teacher noted the pattern of responses in terms of which students chose which answers. They discussed why students answered in particular ways. They also noted where students within and across classes were most proficient.

The teachers agreed that overall, students had the foundational fraction skills, but some students needed review on improper fractions. "When we go into fraction review," one teacher said, "let's have improper fractions in there, so we can talk about why that is not a whole number but is still a fraction." Another teacher noted that a few students confused $\frac{1}{3}$ and $\frac{3}{1}$. "We need to address that," she said.

Another teacher said she thought some students were struggling to take the test on a computer — they could write the answers down on paper, but for some reason they were struggling to note the answer online. (This same teacher would later discuss this concern with her dean, and together they brainstormed how to support students in using the online platform.)

They similarly analyzed the reading comprehension assessment. They noted that only one class met the goal, and asked the teacher of that class what she thought explained her success. "I thank them for showing so much *ganas* [grit], for being on task and showing their work," she said, noting that she gives them a treat at the end of the day. In her class discussions, she further elaborated, she breaks down questions and asks students to explain their answers, and she asks other students to explain what they could have added to answer the question successfully. "I'm looking at what my students need and adapting the lesson plan that way," she said. She also added extra time on reading comprehension when she saw her students needed it, and encouraged students to come for extra help.

They looked at the questions that more than 80 percent of students answered correctly, and discussed teaching strategies for those. After analyzing her own students' answers, one teacher identified figurative language as an area that needed improvement. They determined next steps for addressing that learning need — such as giving more high-level examples — and set deadlines to ensure accountability.

"The first next step is tackling the skills in guided reading, tackling standards, and then communicate to support," said one teacher.

Another teacher had already met with some of her lower performing students who did not meet the goal to go over the test.

ONE-ON-ONE MEETING BETWEEN AN INSTRUCTIONAL LEADER AND A TEACHER

The third-grade dean met with one of her team's teachers to review the results of a recent assessment. "What are your overall reflections on the class's performance and the grade-level performance?" the dean asked.

The teacher said that she was immediately thinking about the outliers, and named two students. "The work looks really good on paper, but for my outliers it was about transferring what was on paper to the computer," she said. Noting that the students struggled with multiple-choice questions, she said that doing the work online is a "completely different ballgame."

The dean noted that the teacher should create next steps for the students whose performance surprised her, since she knew they could do better.

Said the teacher, "They have good evidence, but they get stuck identifying the right answer." The teacher told the coach she would check in with each student. The dean suggested she needed to identify some strategies to help students improve, noting that the data showed students were performing better in other classes.

"That should be a guiding question for your data meeting tomorrow," the dean said.

MEETING BETWEEN INSTRUCTIONAL DEANS AND THE PRINCIPAL

In mid-February, Appleman and her entire leadership team met to review the results of the regional math assessments the students had taken the previous week. While teachers and deans were still working to analyze the data, Appleman wanted to talk through the preliminary findings and next steps for completing the analysis.

Typical of a leader practicing strong interpersonal leadership, Appleman started the meeting with celebrations. The school's performance was the best in the region, she said, "which can be attributed to all of our teachers and staff and the work you do."

Each dean then reported on his or her grade's successes and focus areas for improvement. The second-grade dean said she and her grade-level team would focus on the students who scored at Level 1 and who barely made it to Level 3. She said she was also working with the teacher whose class had the lowest assessment scores. Earlier that day, in her one-on-one meeting with Appleman, the dean had also noted that she wanted to push the grade-level team to consider how they could transfer their success teaching students one standard to teaching the standards students were still struggling with. Noting that it would take extra work for some teachers to apply what they did with one standard to the other standards, Appleman suggested the dean hold a planning conference with the teachers she knew would need extra support.

The first-grade dean reported that the previous month's action step — to observe each other in person and through videos and provide feedback — had had a real impact. The students' performance on the assessment had improved: They were better able to show their work in multiple ways. She added that she had already talked with the lowest performing class's teacher, who told the dean that she was having trouble with higher level questioning and was not giving her students enough time to talk in class. "She is my focus in first grade," the dean said.

Like her colleagues, the kindergarten dean reported that she was already working with the teacher whose class had the fewest high performers and noted that the students in that class had started the school year at a lower level than the other kindergarten students. Appleman agreed, pointing out that the MAP data also reflected that. However, the dean said, the kindergarteners had overall shown significant progress in deconstructing problems, an area the students had struggled with on the previous assessment and that the teachers had focused on over the last couple of weeks. "We set them up for success," she said. The dean pointed out that teachers would have to reteach the standard students did most poorly on — sorting — adding that it had been taught early in the year and never revisited.

Appleman reminded the deans that the next level of analysis would be to see how the assessment overlaps with MAP.

Appleman called this meeting typical: Everyone knew where their grade levels were, down to each standard, and which teachers needed more support. "Their boots are on the ground getting dirty," she said.

QUESTIONS FOR REFLECTION

In what ways did the practices listed on page one intersect or build upon one another to enable staff to use data to analyze and correct their approach to instruction?

Of the practices described in the case study, which do you think would be most impactful if adopted by or expanded at your school? How could these practices be strengthened to have a greater impact on teaching and learning at your school?

What conclusions can you draw from this case study about the kinds of accountability necessary to implement school-wide instructional improvement efforts? What ideas does the case study inspire about creating systems of support, feedback, and responsibility at your school?

AMBITIOUS LEADERSHIP: A CASE STUDY OF PROFESSIONAL DEVELOPMENT AT KIPP COMIENZA

JILL GROSSMAN AND BRAD CAWN



PREPARING TEACHERS TO RAISE THE BAR FOR LITERACY INSTRUCTION

By all measures, KIPP Comienza Community Prep, an elementary school in Huntington Park, California, is a wildly successful school. Though most kindergarteners start at the school well below pre-reading levels, in the first year of the Common Core-aligned Smarter Balanced Assessment Consortium (SBAC) testing, 81 percent of third and fourth graders met or exceeded standards in English; 82 percent did so in math. The school ranked eighth in Los Angeles in overall performance (the average Los Angeles school had 33 percent of students proficient in English, and 25 percent proficient in math) and first among schools serving low-income English language learners. Even more striking, KIPP Comienza was the highest performing school in the nation on the math portion of the SBAC assessment.

And yet, toward the end of the 2015–16 school year, as KIPP Comienza Principal Shirley Appleman and her staff reviewed the school’s literacy assessment data, they were troubled: Many students did not demonstrate flexible and independent reading comprehension. “When they are in fourth grade and finding the main idea is still not concrete, that’s a red flag for us,” Appleman said.

It was not for lack of trying. KIPP Comienza had spent years working with teachers on implementing a core set of research-based guided-reading instructional practices, including modeling reading strategies; delivering targeted, small-group instruction; and administering regular formative assessments. The KIPP Comienza “way,” the school’s gradual-release lesson model, had been taught to all new staff during their induction, and teachers received coaching and feedback on its implementation.

Practices Supporting Effective Professional Learning at KIPP Comienza

- **Establishing a clear instructional vision** that is focused on building independent readers, despite the challenge involved in increasing the complexity of instruction. Establishing this vision involved identifying weaknesses in curriculum and instruction, along with the root causes of these weaknesses, and creating an action plan to address them. It also involved developing a shared mindset among administrators and teachers that all students deserve and need this kind of learning.
- **Structuring the school schedule** to dramatically increase the amount of professional development time teachers have to plan for the next school year.
- **Maintaining a responsive vision of professional development** that includes not only workshops but also frequent collaborative team meetings. School leaders are active learners in all phases of professional development, participating in rather than facilitating sessions on material that is new to the school, and observing and giving feedback on teacher collaboration.
- **Designing practice-centered professional development** so that sessions are organized to consider the layers of work to be done: aligning mission and vision, and planning curriculum, lessons, and assessments. The content of the sessions includes modeling and practice.
- **Holding teachers accountable for their planning and execution**, which involves instructional leaders reviewing teachers’ unit plans and assessments during initial the professional development cycle so that they understand what teachers know and where they need assistance.

In the spring of 2016, however, the school's leadership realized the issue went beyond fidelity to the instructional model: Students lacked a love for reading. Through classroom observations, Appleman and her deans noticed that even teachers were not showing an excitement for books; they were too focused on getting students to complete reading-comprehension worksheets. Driven by the concern that teachers were "spoon-feeding" students, Appleman and her team decided they needed to make literacy instruction less worksheet-driven and more student-centered and "authentic."

"I want to see kids with books in front of them. That's so much more engaging than reading a passage on a piece of paper," Appleman said.

Added a dean, "We want [students] to be the ones who are doing the heavy lifting in reading, doing that critical thinking, and being able to, yes, answer questions on a test, because that's life, but also to have that love of reading, to be able to go across genres flexibly and really be responsible for their own learning and reading, as well."

To achieve this goal, Appleman and her leadership team decided to adopt the Teachers College Reading and Writing Workshop model as the school's core approach to literacy instruction. Previously, literacy instruction had given primacy to small-group guided instruction and a skills-based reading comprehension block. The new model would emphasize student choice, greater teacher-student conferencing, and reading books rather than excerpts, all of which would be new for most teachers at the school. The team had to create time in the schedule for independent reading blocks and for composing and sharing writing. To prepare for this shift, Appleman and her leadership team devised a professional development plan that would support all teachers in making instructional changes.

Though school leaders and teachers alike embraced the proposed change, taking on this work did create some anxiety. The leadership team had decided to fully implement the new model in the fall, accepting that there might be setbacks in performance as they worked to master the program. "It's hard because we're used to succeeding at things, and the reality is, this is probably not going to roll out and everybody succeeds at it the first few weeks," Appleman said. "We have to be okay with that. This is going to get messy, and it's a little scary, but to get to the place where we want to be, we have to do this."

Getting messy, though, requires significant organization. To ensure the professional development would "stick" with teachers, Appleman maintained several essential practices, as described in the inset on the previous page.

ESTABLISHING A CLEAR INSTRUCTIONAL VISION

Observation of classroom instruction clearly indicated the need for more challenging instruction that asked students to take greater ownership of their learning. "Just anecdotally — looking at our kids and walking through classrooms — our students are super compliant. They do what we tell them," Appleman said. "We ask them to read. They read . . . But we don't really say to children, 'Oh, my God. This book. This series. I want to sit down and read it,' because instruction has always just been so paper/pencil based."

While the school's literacy instruction model — focused primarily on guided reading and skills instruction — was comprehensive, it was not necessarily in line with the school's vision and the principal's teaching philosophies. Still, changing it had not been a priority because, for the past two years, the school had focused its professional and curriculum development on improving its math program. Now, with "everything else in the school in a good place," the school could turn toward realizing its vision of cultivating flexible, resilient, and invested readers. The school started by explicitly articulating a vision and goal for literacy teaching and learning: that students would be reading to understand the world around them.

Though some teachers had been experimenting with the pedagogies involved in the Workshop model, staff knowledge and capacity heading into the initiative was limited. Thus, Appleman and her team began by envisioning what they wanted instruction to look like two years down the road — which allowed them to determine what their expectations should be and what coaching and feedback should look like. The leadership team rallied around several key instructional principles — more independent reading practice, more teacher conferring, more discussion, and more authentic assessments of students’ comprehension — that they then codified in a vision statement and lesson model: “Mini-lessons, guided practice through conferencing and partner work, independent practice, and a platform for students to share their work as developing readers.” Collaborating with teachers, Appleman and her team expanded the vision statement to include explicit expectations for both teaching and learning practices, including a set of expectations for what students in all classrooms should be able to say, know, and do inside of workshop time (e.g., “how to share about what they read”).

Given the scope and urgency of this vision, a new approach to implementation was needed. Previously, improvement efforts at KIPP Comienza had been put in place gradually. New initiatives had been rolled out through small pilots and through the school’s delegation of curriculum responsibilities, with each teacher in a given grade responsible for developing the daily plans for one content area. This time, however, the leadership team decided that every teacher needed to become an expert on the Workshop model, and it dedicated the entirety of its two-month intensive planning time in the spring to learning and planning for the new approach. (Each spring, KIPP Comienza students are dismissed early every day to give teachers an additional 75 minutes of collaboration and professional development time to prepare for the next school year. The schedule change is written into the school calendar at the beginning of the school year to give families ample notice.)

Getting the staff calibrated to the vision was the first step. Before beginning professional development with a Reading and Writing Workshop consultant, Appleman and her deans introduced the idea and the rationale behind the shift to teachers. The teachers agreed that a change was needed. “Our staff asked for this,” Appleman said. “They want students to be able to engage in these types of activities. We decided just to go with it.” They spent the first week of teacher development reviewing the school’s mission, sharing the rollout plan, and reviewing feedback on existing plans.

Building buy-in, though, was only the first phase of a seven-week professional development plan that Appleman and her team mapped out to realize their vision. The schedule, seen in Exhibit 1, took the staff step-by-step through the introduction of Reading Workshop, first giving staff an overview of the process, then having a consultant model core practices, and finally giving teacher teams time to grapple with and plan the first cycle of lessons for the next year. Concrete deliverables were tied to each step to ensure staff members were ready for implementation at the start of the next academic year.

EXHIBIT 1. PROFESSIONAL DEVELOPMENT SCHEDULE

Week	Meeting Date	Content	Deliverables	Due	
1	May 2-6	Monday, May 2	<ul style="list-style-type: none"> • Overview of process • Edit/update SOP • Edit/update calendar plots 	<ul style="list-style-type: none"> • Edit/update SOP (C1-C5) • Edit/update calendar plots (C1-C2) 	May 9
2	May 9-13	Monday-Thursday	RC: Emma Graves PD (all LTs participate)		
3	May 16-20	Monday-Friday	Collective work time: Teachers can work together as a grade level	2 weeks of RC plans due to reviewer (RC planner will get and administer feedback)	May 20
4	May 23-27	Monday, May 23	Expectations for assessments, LPs		
5	May 31-June 3	NA	Teachers work on their own		
6	June 6-9	Tuesday, June 7			
7	June 13-17	NA	Teachers work on their own		
8	June 20-22	NA	Teachers work on their own	Cycle 1 lesson plans for all subjects	June 22

DESIGNING PRACTICE-CENTERED PROFESSIONAL DEVELOPMENT

The school took several steps to ensure that the new approach drew upon successful previous efforts and the support infrastructure already in place. To better understand which aspects of the existing reading program should stay and what had to change, Appleman had her staff review instructional plans with the consultant, who assisted them in adapting existing pacing guides and units to match the new model. “There is good work that has been done, so we don’t want to just say, ‘Throw it all away,’” Appleman said. The consultant worked with teams to determine what that good work was. Meanwhile, the deans began to immerse themselves in the Workshop model so that they could support teachers and give the right kind of feedback. They also began to plan for how to fill out teachers’ classroom libraries to ensure there were enough books to appeal to students’ varied interests.

Still, there were gaps in teachers’ knowledge of instructional practices that are central to workshop pedagogy. The biggest roadblock to success, as Appleman saw it, was a lack of teacher knowledge and experience. The mini-lessons the teachers would be doing were similar to what they already did, suggesting an easier transition. Indeed, a great strength of educators across KIPP Comienza, as evidenced in observations of the school prior to the implementation of the new literacy instruction model, was focused, clear, teacher-directed instruction, particularly modeling. But the school’s dean of instruction foresaw teachers struggling with unstructured group work and extensive discussions — with “making sure at the end of the week that they’re still showing mastery, even though it’s not the same way of getting to mastery.” These were elements of instruction that had not been prioritized in previous professional learning.

To build teachers’ pedagogical knowledge, the leadership team — along with their external consultant — designed professional development that modeled the teaching and learning they would expect teachers to carry out with their students. The instructional leaders wanted to create structured opportunities in which “teachers are doing the work to build their own content knowledge,” explained one dean, noting the need for staff to become more metacognitive and intentional about what made them expert readers. With the consultant, they created sessions that would position teachers as learners, taking teachers through the process of selecting a text, identifying a skill they needed to develop, and “spying on themselves as readers.” Appleman had her instructional coach open the first professional development session with an activity on finding the main idea. She read a paragraph that was extremely dense and hard to comprehend, modeled

how she wanted the teachers to identify the main idea, and then had them read the rest of the text and find main ideas. “Everybody was like, ‘This is hard.’” said Appleman. “This is how our kids feel, when we move text out of their reach — it’s boring and difficult, causing disengagement.” That activity, she said, got at the “why” behind the work.

Subsequent activities during the week included the workshop consultant modeling what a mini-lesson is supposed to look like and demonstrating how teachers can transfer skills to students over the course of a week. Teachers debriefed the exemplar, then looked at their own plans to begin to chart how to adapt their mini-lessons. Videos of instruction were also shared with the group, who discussed what they observed and compared it to their own classrooms. Homework for the week included teachers reading complex texts of their own choosing; at the outset of the next day’s session, teachers spent the first few minutes discussing their understanding of the readings.

Teachers also examined several representations of revised instructional plans, including a revised pacing chart and new weekly schedules and progression. One session during the week, for instance, was devoted to a walk-through of the new weekly calendar, a lesson sequence which required teachers to deliberately move from skill modeling at the beginning of the week to more time for independent work, and a transfer assessment at the week’s end. Working together in grade-level teams, participants compared their old weekly structure with this new approach, and practiced planning with sample content in order to get a feel for working with the workshop structure before they embarked on planning for the next academic year.

INCORPORATING AMPLE TIME FOR COLLABORATION INTO PROFESSIONAL DEVELOPMENT

Subsequent weeks of the professional learning cycle were dedicated to collaborative planning within grade-level teams to create launch plans for the next school year. The goal of this planning work, Appleman said, was twofold: (1) to set conditions and initiate structures that allow for greater student choice and engagement, and (2) “to make sure that everyone who’s teaching reading, or has the possibility of teaching reading or literacy to our students, is a content expert.”

The additional 75 minutes of grade-level planning time provided for nine days (grade-level teachers were already meeting for 50 minutes daily to monitor existing instruction) allowed teachers to discuss how to apply the professional development learning in their own classrooms, and to plan the initial month of literacy lessons for the next school year. The school had never done work of this kind before, so the leadership team initially allowed teacher teams complete freedom in choosing their planning focus and process. Because the school already had teacher teams in place with clear expectations for planning time, and instructional leaders followed clear protocols for leading data-focused team meetings, the teams were able to productively use these planning meetings to problem-solve together. As befits a staff with diverse talents and personalities, teams took a variety of approaches. Some teams continued with planning individually, stopping at the end of each session to get feedback on progress; other groups worked collectively, focusing on developing a common pacing guide.

In both cases, teachers immediately noted that enacting a more intensive literacy program was challenging. The first day of planning, the teams took time to try to figure it out, asking, “What do we need, and how are we going to do it?” Without the previous structure of backward planning in place, teams struggled with how to get started. Some continued to grapple with what “authentic” meant pedagogically; others were confused by

how to articulate the new elements inside of time structures that stayed the same. “They had this moment of, ‘Well, I don’t know what to do because no one’s told me exactly what I’m supposed to do,’” Appleman said.

These struggles were particularly acute with assessment design. Having built routines around starting with the end in mind (i.e., the assessments), and having based them off the design and language of the SBAC assessment, teachers were struck by the complexity of now trying to make these assessments authentic. “We really are learning as we go,” said one teacher.

After observing and hearing from teachers about their frustrations, the instructional leadership team was quick to respond. One of the deans took on the task of creating a set of criteria for designing assessments, drawn from both the school’s previous criteria and guidance received in the professional development sessions. Collaboration time was reorganized so teams could concentrate on assessment design, and so instructional leads could be present to provide support. The challenges teachers experienced also compelled the leadership team to define more clearly what it meant by “authentic,” and to have more professional development sessions on that subject so staff were aligned in their vision and had a common language. The leadership team also decided to focus on that issue over the summer, so that they were fully prepared to roll out the Workshop model when the next school year started.

With clearer criteria in place, teams concentrated on redesigning their formative assessment systems to match the pacing guide and the new standards for literacy learning, drawing on their previous assessments and item banks to build out new instruments. They also continued to use the daily 75 minutes of planning time through the end of the school year to individually and collaboratively plan the first month of the next year, often using one another as sounding boards for text selections and activities. By the end of the school year, teachers had produced four weeks of instructional plans, which the instructional leads collected to review and provide feedback on.

HOLDING TEACHERS ACCOUNTABLE FOR PLANNING AND EXECUTION

Appleman wanted to make a full transition to the Workshop model in time for the start of the next school year. Thus, teachers were required to complete key deliverables from their collaborative work, and the administration carefully monitored progress. The leadership team asked teachers to create launch plans before the end of the school year: All teachers had to submit their first three weeks of plans by the end of May and submit plans for the remaining weeks of the first unit by the end of the school year. These deadlines allowed the administration to provide individualized feedback and coaching over the summer so that teachers could revise and refine the lessons prior to the start of the school year. They also gave the leadership team a chance to determine the professional development focus for the coming year — based on areas of need observed in the plans — and to determine who might need additional coaching or assistance.

The administration provided responsive feedback and support during the professional development. As noted earlier, the instructional leadership team responded quickly to challenges faced during the collaboration period, adapting due dates and deliverables for each teacher team based on progress. The deans and coaches regularly sat in on teacher team meetings, providing feedback and clarity. Appleman and her deans also gave the consultant daily feedback and suggestions on her professional development sessions based on the leadership team’s observations, and the school deans worked with her daily to improve her facilitation plans.

Ultimately, the school was aiming for more than just a head start on the next school year. Appleman and her team wanted to create an environment that enabled risk-taking and gave teachers the opportunity to learn from the new model. Though Appleman recognized the risk that students might struggle more, and that assessment scores might decline as they rolled out the new instructional model, she was willing to

accept these challenges in service of serving students better. She planned to reassure staff that it was O.K. if students initially did not do as well as they did previously on assessments, “because we are doing this differently.” Still, she added, they would need to determine if and when they needed to adjust their approach. “We don’t know if it’s working if the assessments aren’t showing that it is,” she said.

QUESTIONS FOR REFLECTION

What stands out to you as different or exemplary about this school’s approach to professional development and instructional improvement? How does it compare to efforts at your current or previous school(s)?

Based on this case, in what ways can vision-setting help inform the planning of high-impact professional learning?

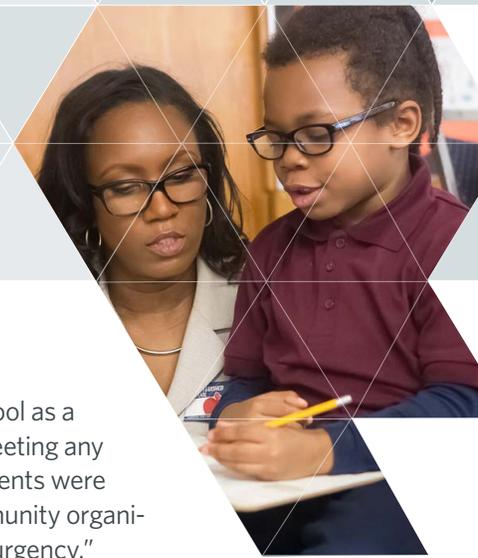
What were the foundations or critical conditions established at KIPP Comienza that ensured follow-through and accountability for teachers’ learning?

Throughout this case study, the staff engaged in productive struggle. Identify two times when the staff faced a challenge with implementing a new literacy curriculum, and describe how they were able to overcome that challenge. Was the challenge worth the outcome?

Though not the case at KIPP Comienza, limited time and resources are cited as constraints by many schools when it comes to enacting and sustaining impactful professional development. Brainstorm ways you could use existing time in the schedule for practice-based professional learning.

AMBITIOUS LEADERSHIP: A CASE STUDY OF COACHING AT DC BILINGUAL

JILL GROSSMAN AND BRAD CAWN



COACHING TO SUPPORT COMMON CORE-ALIGNED INSTRUCTION

When Principal Daniela Anello of DC Bilingual Public Charter School started at the school as a literacy coach seven years ago, it was struggling academically: DC Bilingual was not meeting any of the District of Columbia's academic performance standards, less than a third of students were proficient in reading, and only three percent were proficient in math. "It felt like a community organization where people came to relax," Anello recalled. "We needed to raise the sense of urgency."

Since then, the dual language school, which educates all students in English and Spanish, has made significant progress. By 2014, reading proficiency had risen to 60 percent, and math proficiency to 63 percent. In 2015, the first year of the Common Core-aligned PARCC exams, 65 percent of DC Bilingual students scored at least a 3 (approaching college-readiness standards) on the English language arts test, and 64 percent did so on the math test, compared with averages of 44 percent and 56 percent respectively for the city at large. In fact, DC Bilingual, where 81 percent of students qualify for free lunch and 51 percent are English language learners, had the fourth highest percentage of third graders scoring a 3 or above in math of any DC school.

What accounts for this improvement? Anello and her team point to their laser-like focus on ensuring that all teachers have the skills to deliver the school's standards-aligned curriculum with fidelity. To make the shift to teaching

Practices for Effective Coaching at DC Bilingual

- **Collecting and using data to design an effective coaching team:** Anello and her leadership team examine achievement data, observation data, and survey data to determine the most effective coaching structure.
- **Leveraging pedagogical and instructional expertise:** Anello appoints coaches with teaching expertise and deep knowledge of the standards and research on literacy and math instruction. This expertise comes from coaches' own training, their ongoing professional development, and their work developing DC Bilingual's standards-aligned curriculum.
- **Establishing positive attitudes and expectations around coaching:** At DC Bilingual, every instructional staff member is coached. Receptivity to coaching and feedback infuses the culture of the school, to the extent that existing faculty and potential hires are evaluated based on their willingness to be coached. Coaches review lesson plans weekly, observe classrooms, and help teachers identify next steps for instructional improvement, which they expect to see enacted during subsequent classroom observations. School leaders monitor coach-teacher interactions through weekly coaches' meetings and provide feedback and support to coaches.
- **Using evidence-based coaching pedagogy:** The structure and content of the coaching sessions are based on research on coaching and detailed evidence from practice. The sessions are designed to help teachers effectively implement the school's curriculum, and they focus closely on identifying and developing strategies to address student struggles and misconceptions. The school also makes use of apprenticeship models, in which coaches model for teachers how to enact high-leverage practices.
- **Establishing time in the schedule for coaching support:** The daily, weekly, and master schedules allot ample time for coaches to support teachers both in and outside of the classrooms.

that supports college- and career-readiness standards, Anello said the school had to create a culture of rigorous and ongoing learning for adults in the building. A key way the school has built this culture and increased teacher capacity is through a comprehensive coaching system. The members of the instructional support team design and deliver professional development, coach teachers one-on-one, and work with them in grade-level and vertical team meetings. They also lead small-group and individual interventions with struggling students in their respective content areas, ensuring that the learners with the greatest need have continued access to the best educators in the school.

To carry out this level of instructional coaching, the school maintains several essential practices as listed in the inset on the previous page.

COLLECTING AND USING DATA TO DESIGN AN EFFECTIVE COACHING TEAM

Anello and her leadership team collect a range of data to analyze their coaching systems and determine if any changes need to be made for the following year. To inform more immediate adjustments and refinements to the system, they collect coaching “experience” data from teachers after workshops, during coach-evaluation periods, and after coach-led grade-level or vertical team meetings.

Based on these analyses, as well as data from observations and assessments, Anello realized a few years after the Common Core standards were introduced that teachers needed significantly more support to successfully enact standards-aligned math instruction. In response, she tripled her math coaching staff. She asked two teachers to join the coaching team as math specialists, dividing their time between coaching and professional development and small-group math intervention work with students. This change expanded the school’s coaching staff to 10 — six staff members who split their time between coaching and teaching (in literacy, math, specials, and technology), and four full-time coaches (in math, literacy, Spanish, and pre-K) who also develop curriculum and design professional development. The increase in the coaching team staff enabled each math coach to work closely with one-third of the school’s teachers.

The school continues to refine its coaching system through teacher surveys and self-reflection by the instructional leadership team. At the end of the school year, DC Bilingual also has a “think-tank” process, during which teachers volunteer to analyze the school’s systems, reviewing data and determining what is working, what needs to change, and how. Through the think-tank process, Anello was able to determine at the end of the first year of the expanded coaching system that teachers were finding it difficult to work with so many different coaches each week. She also determined that there was a need for coaches across content areas to pool their collective expertise, since students in some subjects were demonstrating better uptake of relevant strategies such as note-taking. To address some of these shortcomings, Anello and her leadership team made changes. They reorganized coaches around grade bands to enable more sustained relationships with teachers: One math coach and one literacy coach are assigned to the lower grades, and one of each to the upper grades. At the same time, Anello has made more time in the schedule for coaches across content areas to collaborate and share successful strategies.

LEVERAGING INSTRUCTIONAL EXPERTISE

The school's math specialists, who divide their time between coaching and small-group interventions, have each been at the school for at least five years and have taught several different grade levels at DC Bilingual. When they were assigned to the leadership team, they had already had the opportunity to work closely with the lead math coach, building expertise about effective, Common Core-aligned math instruction. The team also took the lead in designing and overseeing the implementation of the school's math curriculum. The process of designing a standards-aligned math curriculum significantly deepened the coaches' Common Core expertise.

As a result, coaches' feedback to teachers is informed by a deep knowledge of the curriculum and standards-aligned instruction. "The coaches rehearse the lessons as the student so they can anticipate what misconceptions might come up," said Anello. "What were the parts that were challenging? What are the things kids are going to have hiccups with?"

This process is used in English language arts as well. The literacy coach reads all the books the teachers are using in their classes, getting to know the stories, the characters, and their motivations, so that she can help the teachers ask questions that deepen students' learning. "She is pushing the teachers to understand how to get the kids thinking that way," Anello said.

Added one teacher, "There's a team of knowledgeable experts who come in, observe, and not only give you feedback, but give you quick action steps that are really easy to implement immediately."

In addition to hiring experienced and knowledgeable coaches, Anello provides opportunities for their ongoing development. The pre-K coach was a pre-K teacher at DC Bilingual for four years before becoming a coach. When she noted that pre-K needed a better curriculum, Anello paid her to develop a new curriculum over the summer, and she became the expert on pre-K instruction at the school. The pre-K coach furthers her development through a partnership with Fight for Children's Joe's Champs program. The program provides coaching to build her adult and instructional leadership skills, so she can more effectively evaluate and support the early childhood educators on her team.

Almost all of DC Bilingual's coaches have attended the Coaching Institute at Teachers College, and they also occasionally visit other schools to observe coaching and professional development for coaches. But the primary source of development for DC Bilingual's coaches is the two-hour meetings they hold every other week. Coaches videotape their sessions with teachers and bring them to meetings for review and discussion. They have also started observing each other's coaching sessions and giving feedback, though Anello has not yet worked this practice into the regular schedule.

ESTABLISHING NORMS AND EXPECTATIONS

The consistency of the coaching at DC Bilingual, and the common expectations for what it should look like and how both teachers and coaches should use the feedback, have been critical to the system's success. Using a procedure established by the former principal, all coaches follow the same steps for gathering information from teachers and giving them feedback.

Every Sunday evening, coaches review and comment on teacher lesson plans. They observe teachers daily; meet one-on-one with teachers weekly or biweekly, depending on the teacher's coaching plan; sit in on grade-level and vertical team meetings; and design and lead professional development sessions, including occasional walk-throughs. Coaches differentiate their support to meet teachers' needs — as determined through observations, videos, self-reflection, and student assessments — and help teachers carry out improvement plans and meet professional goals. Coaching sessions always end with the coach and teacher determining action steps, which the coach and the principal or assistant principal expect to see enacted in subsequent classroom observations. The feedback and goals are recorded and monitored by Anello in the school's online tracker. Exhibit 1 shows the format of the tracker.

EXHIBIT 1. COACH-TEACHER MEETING NOTES

Date	Observer	Praise	Action Step	Planning / Next Step
Jan. 22	Coach	You have created clear anchor charts that support student understanding of a game AND provide definitions and examples. Your chart of addition strategies with doubles and combos of 10 is a great way to support and cue students. Also, transitions are great!	Guide students through suggestion to practice strategies they are "using and confusing" (doubles, combos of 10) during the number talk by starting with a turn-and-talk about strategy selection.	Observe number talks

Coaches' and administrators' observations of teachers are kept in the tracker, enabling school leaders to compare notes and work together to devise a plan to support teachers who need it. After Anello observes a teacher, she shares her feedback with the relevant coach and asks about next steps for supporting that teacher. Goals or next steps are also kept in the tracker. When a teacher meets a goal, the goal is highlighted in green; if the teacher does not reach the goal by the intended time, it is highlighted in red. Anello is able to scan the tracker and quickly follow up if she sees a teacher has goals in red for consecutive weeks.

The literacy and math coaches regularly meet to discuss certain teachers and teacher teams. For example, when the coaches compared notes and saw they had both observed one grade-level team veering from lesson plans, not collaborating well, and not differentiating instruction effectively, the coaches decided to talk with the team about how to divide planning roles and then share plans. When both the literacy and math coaches observed a new teacher struggling to control her classroom, they agreed that one coach would go in and model a morning meeting to help set the tone for the class, while the other coach would work with the teacher on setting a goal for herself.

The school's culture of high expectations is clear in the coaching sessions. During a recent coaching session between the literacy coach and a third-grade teacher, following a morning observation, the coach pushed the teacher to deepen her questions to elicit better discussion among students. Rather than asking students to name different characters in the book, the coach suggested the teacher ask students to describe characters' emotions. She told the teacher she would be looking for the teacher to "raise those questions up a notch" in her lesson plan, and in the classroom when she came to observe the following week. When a

coach sees a teacher struggling to implement feedback, she may step in to model part of a lesson.

Said one teacher, “Your coaches aren’t just on the outside; they’ll say, ‘I see that you did this, and I like that. Can I show you another way to do it?’ They’ll model it for you, and then they’ll want to watch you do it. Then you can discuss what worked and what didn’t work, so that it can be a part of your personal practice.”

Of course, this relationship does not develop overnight. Coaches spend the first month of school building relationships with teachers. “We have to get to this place of trust so that later we can say, ‘What happened there? What are you doing?’” explained Anello.

Soliciting feedback from teachers helps build this trust. Said one teacher, “The coaches ask, ‘What do you want, in terms of your instruction?’ They value teacher feedback, and they listen to what we need, because we are the ones in the class all day.”

“We are all learning,” said Anello. “We are all learning alongside the teachers and alongside the students.”

Anello describes the coaching feedback style at DC Bilingual as “warm-strict.” Coaches open sessions by complimenting the teacher on some aspect of his or her practice, then shift to concerns based on observations and hard data. “We are respectful, but we also expect that all of us are using our time effectively to increase student learning,” Anello said.

Screening teachers for openness to learning and coaching is an important part of the hiring process at DC Bilingual. Applicants are asked to teach a lesson, receive feedback, and then teach the lesson again with modifications based on the feedback. “There is no other way to know if they are receiving feedback well and responding to it immediately,” Anello said. After a few years with this interview process in place, she said, all but two of the teachers fully embrace the coaching process.

COACHING IN ACTION

All coaching sessions at DC Bilingual, regardless of format, share several key elements. All are evidence-based, with discussion of quantitative data (from student assessments) and qualitative data (from classroom observations). They also support the implementation of the school's curriculum and focus on identifying and responding to student thinking (e.g., addressing misconceptions). In addition, all use modeling, with the coach demonstrating how to enact high-leverage practices. Below we describe two coaching sessions, a grade-level team meeting and a one-on-one coaching session.

Grade-Level Team Meeting

Two math coaches led a first-grade math team meeting focused on laying the groundwork for computational fluency in the early elementary grades. After reviewing the meeting agenda with the team, the lead coach distributed a map of the school's K-2 math fluency progression. The progression started with knowing the number names, then moved to counting out objects, parts of 5, combinations of 10, and finally $10 + n$. To the side of the map, the coach had inserted the Common Core standard the progression comes from: *Add and subtract within 20, demonstrating fluency for addition and subtraction within 10, as well as some of the strategies associated with that standard.*

"Think about the progression and where your kids might fall as you are teaching computational fluency," the coach said. "What's that big hurdle we want to get over?"

The teachers discussed the trouble some of their students had been having with counting on. The lead coach noted, "Counting on is largely developmental. You need to give them that meaningful practice."

As is typical in these meetings, the lead coach then distributed student-level data from the most recent first-grade assessments. "How can this data be on your radar every day to design those number talks?" she asked.

One first-grade teacher said she had been struggling because her students were in such different places: Some students could add groupings of, for example, three and seven dots, while others had to count them out one by one.

Pulling from strategies outlined in the math curriculum, the coach suggested the teacher use a 10-frame to help the student. "We want kids to be relating to the 'ten-ness,'" she said. "Be really strategic about the model you use in the number talk that day."

The math specialist then introduced the teachers to a math activity she wanted them to try with their students, one that was not a part of the curriculum but that one coach had used successfully in small intervention groups. The coaches devoted the next 15 minutes of the meeting to having the teachers try out and analyze the activity. First, a coach demonstrated how the activity was done; then the coaches divided the teachers into pairs to try it out themselves. The coaches observed each pair as one teacher played the student, the other the teacher.

The lead coach told the teacher who was playing the teacher role, "Ask, 'Can you pick up five?'" The teacher asked the question to her partner.

To the teacher playing the student, the coach said, "Say, 'I can. I can pick up the red four and the blue one.'"

"Is there another way?"

"There is another way. The orange three and the yellow two."

The math coach had the two teachers continue to practice the activity.

In thinking about how the teachers would talk about the activity with their students, the coach advised, "One sort of meta thing to be aware of in your instruction is how often you ask kids to count off. Maybe we should ask kids how they 'found out' rather than asking them to 'count off.'"

The coach asked the teachers to spend the last few minutes of the meeting thinking about where in the lesson they would insert the activity, and asked them to let her know their plan. Finally, she gave them an article to read on mastering fact fluency.

One-on-One Coaching

In a third-grade classroom at DC Bilingual, the school's lead literacy coach asked a first-year third-grade teacher to read aloud from the book her class had just started reading, *Because of Winn Dixie* by Kate DiCamillo. When the teacher had finished the passage, the coach asked her to compare and contrast the feelings of the two characters in the scene. "Show me evidence from the book to support your answers," the coach said.

A few hours before this visit, the coach had made her daily observation of this teacher's class and held a feedback session with her. First, she praised the teacher for making improvements from the previous week based on earlier feedback from the coach: She had incorporated more turn-and-talk into the lesson, and reduced transition time from one activity to another by 30 seconds.

After looking over and discussing some student work from the previous few days, the coach asked how the teacher planned to set students up to actively participate in the next day's read-aloud lesson. The teacher said she had not yet thought about the ideal student outcome for the lesson. "What are you learning through student discussion and building on ideas?" the coach asked. "What will your questions or prompts be to get to that action?"

The coach pulled out a copy of Bloom's Taxonomy to rate the level of the teacher's questioning in her class that morning. Reading from her observation notes, the coach recalled the questions the teacher had asked her class: *What is the name of the dog in the book? How did the main character come up with that name?*

The teacher realized that these questions involved remembering, which fell low on Bloom's Taxonomy. "Those are the ones that are easy to answer," the coach said. "The deep thinking happens with the inferential questions, where students have to search for answers." She suggested that, in her next class, the teacher ask students to describe the feelings of each character, and suggested she create a compare-contrast table to support a discussion comparing and contrasting characters. She showed the teacher a sample graphic organizer she could use.

"Critical-thinking questions lead to the richest discussion," the coach said. When the teacher said she was unsure how to structure the discussion, the coach suggested, "Ask open-ended questions, and then scaffold back from there." The coach suggested that the ideal outcome for this lesson could be that students are able to describe and compare how the characters are feeling.

To help the teacher prepare for upcoming lessons, the coach practiced with her. She read aloud to the teacher and asked her to take notes and fill in the compare-contrast table. They brainstormed questions the teacher could ask her students related to the excerpt. "So one question I might ask is, 'How would you compare the reaction of one character to another?'" the coach said. She had the teacher try her hand at answering the question. "What details in the text support your answer?" The coach also emphasized the importance of the point of change in a scene. "How would I discuss that?" the coach asked. "Ask, 'How did the character feel at the beginning of the scene, and how did he feel at the end?'" The teacher added these questions to her lesson plan for the next day.

"When I go in to review your plans for next week on Sunday night, I'll look for how you are raising those questions one notch," the coach said. And she told the teacher she would look out for these improvements when she returned to observe the class early the following week. After the meeting, the coach recorded her feedback notes in the online tracker (see Exhibit 1), which the teacher and her supervisors could access at any time.

CREATING TIME IN THE SCHEDULE FOR COACHING

Scheduling is critical to the success of coaching at DC Bilingual. Teachers are coached once a week, alternating weeks between math/science and literacy. Exhibit 2 shows a sample teacher schedule for coaching and collaboration time with colleagues.

EXHIBIT 2. COACH-TEACHER MEETING SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday*
45-minute planning time (collaborative or individual)	30-minute individual coaching meeting — literacy 15 minutes of independent lesson-prep time	45-minute grade-level team meeting — math/science	45 minutes of planning time	1:30–1:45: team building 1:45–4:00: vertical team meeting — literacy

* Students are dismissed at 1:00 on Fridays to accommodate teacher collaboration time.

Weekly grade-level team meetings are held when students are at specials (music, art, library, physical education, dance, and technology) or, for pre-K, when children are napping. These meetings are organized into four-week cycles, alternating focus on literacy, data, Response to Intervention, and math/science. Vertical team meetings are held biweekly, alternating between literacy and math/science. Coaches also meet as a team every other week.

Exhibit 3 gives a sense of what a coach's meeting schedule looks like in a given week. Any unscheduled time is used for individual coaching sessions and classroom observations.

EXHIBIT 3. MASTER COACHING SCHEDULE

Week 1	8:00–9:00	9:00–9:30	9:40–10:25	10:30–11:00	11:10–11:55	1:00–1:45	1:20–2:05	2:10–2:55
Specials		Studio 4	3rd and 4th grade	Pre-K 4	1st and 2nd grade	Pre-K nap	5th grade	Kindergarten
Mon.								
Tue.	Biweekly coaching team meeting							
Wed.			3rd-grade-level team meeting		2nd-grade-level team meeting	Pre-K 3 grade-level team meeting	5th-grade-level team meeting	
Thu.			4th-grade-level team meeting		1st-grade-level team meeting	Pre-K 4 grade-level team meeting		Kindergarten grade-level team meeting
Fri.							Literacy vertical team meeting	

The master schedule supports coaches' work by showing what times teachers within grade levels cover each subject. For example, all first-grade classes have literacy from 8:10–9:40 every morning, and then math and science from 9:50–11:10. Thus, coaches know what lessons they will see whenever they go into a classroom and can schedule their observations accordingly, based on what they are working on with a teacher.

QUESTIONS FOR REFLECTION

What aspects of the coaching practices described in this case study appear to have had a substantive impact on teacher capacity and performance? What was the principal's role in developing and supporting these practices?

What does this case study suggest are the systems and structures necessary for coaching and feedback to be impactful?

How might schools that lack the coaching personnel and systems described in this study draw on other human and social capital resources — such as professional learning communities or the principal — to provide ongoing support for instructional improvement?