


REDSTONE



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Taking Coherence Across the Chasm

Why the coming years are crucial for scaling "coherent" instructional models, and what funders can do to help



Executive Summary

Research and practical experience increasingly **demonstrate the value** of a **coherent instructional system** that aligns time and money, core curriculum, and supports to an evidence-based approach to teaching and learning. **Philanthropy** has helped **lay the groundwork** for students and teachers across the country to **benefit from coherence**.

As coherence moves towards a tipping point to **nationwide uptake**, it will confront new challenges. This reality makes the coming years a crucial time to **help the field of coherence** prepare itself for scale.

This white paper takes stock of where coherence stands today in the United States' K-12 education landscape and what it will take to make it the norm nationwide, based on the experience of three districts implementing coherent models. The paper, which is aimed primarily at education funders and mission investors, covers these overarching conclusions:

1. The field of education is entering the next phase of an essential evolution

It has been clear for years that closing the achievement gap will require systemic change. Research has identified coherence – an aligned system of curriculum, instruction, assessments, and other resources – as a key ingredient in that change. Years of effort by states, districts, schools and educators have built the foundation for the spread of truly coherent instructional approaches.

Now, there is a growing push to help districts invest the financial and organizational resources necessary to achieve coherence. Many professional learning (PL) and assessment providers are developing content-specific services to help educators meet students' individual and collective needs. Meanwhile, curriculum providers and reviewers are

COHERENCE

We use the term "coherence" to refer to a school- and district-wide instructional system that has the following elements:



A documented approach to teaching and learning that is evidence-based, standards-aligned, and whole child-centered



High-quality materials (both primary and interventional) and assessments aligned to that approach



Content-aligned, job-embedded professional learning built around collaboration among teachers with regular observation and feedback



Financial resources, human resources, schedules, and other schools structures organized for implementation of the model

This definition pulls from several sources, including the Charles and Lynn Schusterman Family Foundation's working draft Aligned System for PL framework (see Appendix B).

Executive Summary

putting more emphasis on aligned PL and are increasingly adding supplemental materials or interventions that complement full-year, core programs. Early results are encouraging: a randomized study of EL Education's English Language Arts curriculum-plus-aligned-PL model found that teachers showed marked improvements in classroom practices after just one year and sustained those gains through a second year, while students who had participating teachers for two years made the equivalent of 1.4 months more progress on ELA outcomes, relative to peers, in that second year alone.¹ Several large districts now are implementing coherent models districtwide.

2. As momentum for coherence builds, providers need to appeal to pragmatists, not just visionaries

Despite these exciting trends, the broader outlook for adoption of coherent models as they currently stand is mixed. Organizational theorist Geoffrey Moore's bestselling book, *Crossing the Chasm*, notes that new practices or ideas rarely diffuse in a smooth pattern. Rather, there is often a "chasm" that separates two segments of a market:

- 1. Early Adopters** are the leaders and visionaries most willing to experiment with new ideas and give a shot to compelling innovations
- 2. The Early Majority** are more deliberate and wait for proven results

Whereas the Early Adopter is a "change agent" who seeks "a radical discontinuity between the old ways and the new," the Early Majority "want evolution, not revolution."

Three Early Adopter districts illustrate the potential impact of coherence: Tulsa Public Schools in Tulsa, OK, which is implementing Core Knowledge's language arts curriculum aided by support from Leading Educators, Education Resource Strategies, and TNTP, as well as Wake County, NC, and East Ramapo, NY, both of whom are implementing EL Education's coherent model that includes instructional materials and embedded PL.

Each exemplifies an Early-Adopter approach that enables impact, but is also very different from the likely approaches, values, and mindsets of the Early Majority. The districts had a strong vision that led them to pursue a new approach, a willingness to put in the investment to realize a model that differs from previous systems, and a tolerance for early glitches, such as delays in distributing materials. However, because these Early Adopters are comfortable with "radical discontinuity," their experiences may cause as much hesitation as excitement with Early Majority districts who are focused on ease of use and practicality.

Executive Summary

None of these gaps is insurmountable. However, the coming years will be crucial as coherent models attempt to cross the chasm so that they can reach the many students and teachers who could benefit from them.

3. The next five years present a unique window of opportunity for investments to prepare coherence for scale

Investments to date in coherence have enabled the development of impactful models that are producing meaningful results. Now, strategic investments – many of them with recyclable capital – could have outsized impact in making those results scalable.

Three opportunities loom particularly large for grantmakers and mission investors to help coherent models serve the Early Majority more effectively:

- **Increase compatibility with existing systems by promoting collaboration with continuous improvement efforts** that build on the successes of coherent models. These efforts can illustrate how coherence can integrate into the systems districts already are using while generating insights on how to improve that integration.
- **Improve reliability by providing recyclable capital for iterative product development**, including to content and platform providers building alignment into their products and services. Capital needs for growth and iteration may be higher than for initial development, but much of it can be low-interest loans or equity-like investments, rather than grants.
- **Increase the influence of evidence through rigorous research on coherent models, leader peer engagement and supportive infrastructure (e.g., data sharing between providers).**

These are but three of the most promising avenues for philanthropic investment. The combination of potential benefits from scaling coherence and reductions in risk from successes to date make growth capital for coherence a uniquely high-return opportunity for grantmakers and mission investors.

Part One



Photo by Pragyam Bezbaruah from Pexels

The field of education is entering the next phase of an essential evolution

As far back as 1995, it was recognized that “a precept of educational practice is the need for alignment among curriculum, instruction, and assessment.” In 2001, the National Research Council concluded that “improvements in learning will depend on how well assessment, curriculum, and instruction are aligned and reinforce a common set of learning goals.”²

As a result, it has been clear for years that closing the maddeningly persistent achievement gap will require systemic change. Every district needs a coherent instructional system that aligns financial resources, human resources, and schedules with high-quality curricula, PL, and assessments to an evidence-based, standards-aligned, whole child-centered approach to teaching and learning.

Years of effort by states, districts, schools and educators have laid the groundwork for the success of a truly coherent instructional approach. The push towards equitable access to high-quality, standards-aligned curricula has crescendoed even as research has revealed the wide variation in the quality of instructional materials and supports.³ Work is now underway to make implementation of standards-

aligned curricula and high-quality instructional materials through improved PL programs. Significant philanthropic investment is giving rise to high-quality curriculum, PL, and assessments.

Every district needs a coherent instructional system that aligns financial resources, human resources, and schedules with high-quality curricula, PL, and assessments to an evidence-based, standards-aligned, whole child-centered approach to teaching and learning.

Yet most PL delivered to teachers today is not aligned to the curriculum used in classrooms, and this dissonance contributes to the fact that fewer than a third of teachers are highly satisfied with the PL they receive.⁴ In this way and in others, coherence is the exception.

Now, there is a growing push to help districts invest the financial and organizational resources necessary to achieve coherence.

Many PL and assessment providers are developing content-specific services – and, in the process, advancing conversations about how to modernize and further professionalize teaching so that educators are empowered to meet students’ individual and collective needs. Just as doctors “aren’t expected to invent a new procedure to do open-heart surgery,” notes Chong-Hao Fu, CEO of curriculum-aligned, district-level PL-design organization Leading Educators, teachers shouldn’t have to design lessons from scratch.⁵ Instead, content-aligned PL can help focus their efforts on applying professional judgment to differentiate instruction, drawing from the evidence-based practices underlying the materials to meet students’ needs.

Similarly, curriculum providers and reviewers are putting more emphasis on aligned PL. As EdReports Chief Strategy Officer Lauren Weisskirk explains, “True impact in the classroom only comes when we support teachers to know why [instructional] materials are quality and *how to use them effectively*” (emphasis added).⁶ The integrated models are helping teachers “practice what you teach,” in the Aspen Institute’s words.⁷

Furthermore, curriculum developers are increasingly aware of the need for supplemental materials or interventions that complement full-year, core programs. Student Achievement Partners has found that even if materials are technically above a student’s grade level, it is much better for the student to stay engaged in the coherent model and focus on building content knowledge rather than to hold them back with misaligned remedial material.⁸ As Kim Andrews, Managing Director of Networks at Leading Educators, explains, “There is a significant and growing body of research that shows that students’ ability to comprehend complex text improves through practice with complex texts.” Although much

remains to be learned about efficient scaffolding, many of the best coherent models include interventions that help teachers keep students engaged with complex texts.

Nascent as these efforts are, early results are encouraging. For example, randomized trials of EL Education’s Teacher Potential Project, which integrates high-quality, standards-aligned materials with an embedded PL and assessments approach, found teachers made substantial improvements within a year and sustained those gains through a second year (Figure 1), while students who had participating teachers for two years made the equivalent of 1.4 months more progress on ELA outcomes, relative to peers, in that second year alone.⁹

Most excitingly of all, large districts are implementing coherent models districtwide. But even their success may not be enough to induce districts nationwide to uptake the new models. For these districts to be leaders of a wave, rather than exceptions that prove the rule, coherent models must surmount an expansive obstacle that has felled many innovations before them.

Figure 1
TEACHERS AND STUDENTS IN EL’S TEACHER POTENTIAL PROJECT MADE MORE USE OF BEST PRACTICES¹⁰



Critical thinking

More teachers asked 50%+ **higher-order questions**

In more classrooms, students sometimes or often engaged in **higher-order thinking**

In more classrooms, students **analyzed text** for themes, plots, and/or character motives



Use of text-based evidence

More teachers regularly asked students to **write citing evidence** or information from a text they had read

More teachers regularly asked students to cite evidence from the text to **inform their responses verbally or in writing**



Collaborative engagement

In more classrooms, students **shared their ideas** about and/or understanding of the texts they read with the whole class

In more classrooms, students explained or **supported their understanding** of what they had read

More teachers asked students to do a **group activity or project** about what they had read

Part Two



As momentum for coherence builds, providers need to appeal to pragmatists, not just visionaries

In 1991, organizational theorist Geoffrey Moore published *Crossing the Chasm*, a bestselling book that would become a go-to resource on “bringing cutting-edge products to progressively larger markets.”¹¹ Leveraging research on diffusion dating back to the 1950s, Moore noted that new ideas, practices, and products confront several groups as they diffuse, ranging from the most experimental innovators to the laggards who may never come around. Moore’s insight was that the boundaries between these groups are not equally fluid. Rather, there is a “chasm” that separates two groups, in particular, and marks the boundary between rare exception and status quo:

- **Early Adopters**, usually no more than 15-20 percent of a market (in more formal terms, those who adopt at least one standard deviation earlier than the average,¹² though of course this varies by market), are the leaders and visionaries most willing to experiment with new ideas and give a shot to compelling innovations.

➤ **The Early Majority**, about a third of the market, are more deliberate and wait for proven results – often from the experience of interpersonal contacts among early adopters – before uptake. They are typically more like the rest of the market than they are like the Early Adopters; if an idea can appeal to the Early Majority, it has a shot at achieving large-scale uptake.

Whereas the Early Adopter is a “change agent” who seeks “a radical discontinuity between the old ways and the new” and is “prepared to champion this cause,” the Early Majority are “driven by a strong sense of practicality” and are most interested in “productivity improvement for existing operations.” The Early Majority “are looking to minimize the discontinuity with the old ways. They want evolution, not revolution.”

“The deep and dividing chasm that separates the early adopters from the early majority” is “by far the most formidable and unforgiving transition” in the adoption journey (Figure 2) — Geoffrey Moore

Although coherence likely remains firmly in the Early Adopter portion of the adoption curve – even a generous estimate suggests coherent models are reaching under five percent of public-school students in the US* – it is worth thinking ahead to the maturation that coherence will have undergo to cross the chasm and shape education nationwide (especially since the chasm can come at different times for different markets).

The experiences of three Early Adopters of coherence demonstrate the extraordinary vision and effort required to achieve coherence today. Appendix A sets the context for efforts in Tulsa, OK; Wake County, NC; and East Ramapo, NY (Appendix C lists interviewees consulted in the studies). The next sections describe how coherence is helping them succeed, and why further development in coherent models is needed more than ever to bring those successes to the Early Majority.

Three Early Adopters illustrate the potential impact of coherence

Tulsa, Wake County, and East Ramapo – three very different districts with different challenges and opportunities – are seeing early, encouraging signs that their coherent models are working.

Tulsa is only in the first year of its five-year districtwide rollout of CKLA, aided by support from Leading Educators, who is designing and supporting the content-aligned PL; Education Resource Strategies, who is helping the district align systems and resources for the model; and TNTP, who is helping define a vision of effective instruction.

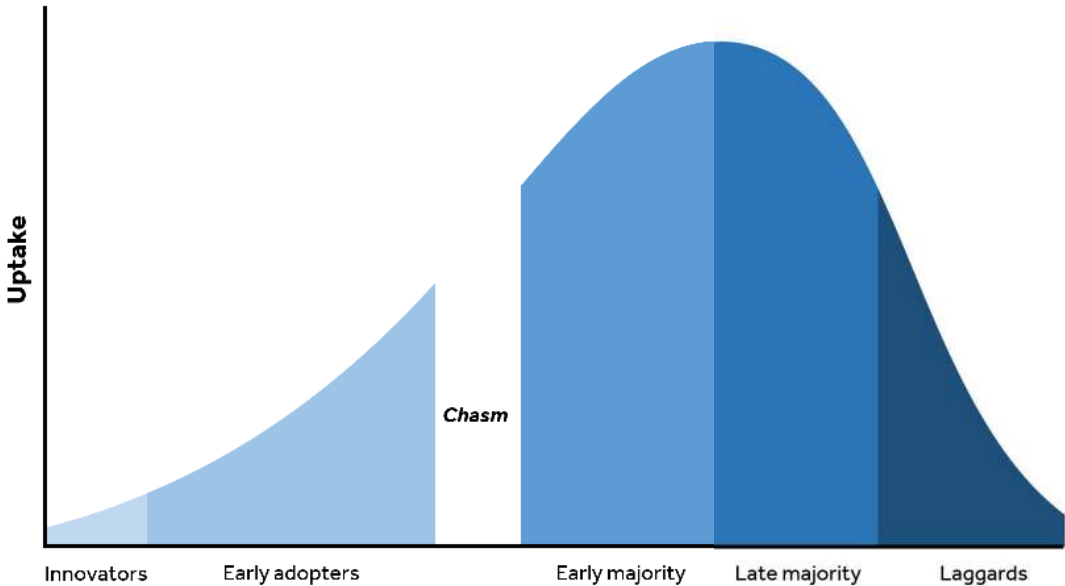
*At the same time, it's difficult to account for districts who have built coherent resources and supports on their own, such as the District of Columbia Public Schools did for materials while working with Leading Educators on teacher development (Wiener and Pimentel 2017).

Nascent as the effort is, there is preliminary evidence that the coherent system is improving implementation of new materials there. Leading Educators’ internal research suggests Tulsa has put in place the conditions that the organization has found to be important in succeeding with content-aligned professional learning – including distributed instructional leadership, aligned assessment, enabling master schedules, and limited priorities. Meanwhile, Devin Fletcher, Tulsa’s Chief Talent and Learning Officer, has found it “powerful” to see “the willingness of our teachers and leaders to put forth the necessary effort” to make the new model succeed; that engagement has been crucial to persistence through inevitable early challenges. The result is that “teachers are rapidly building their knowledge both in content and the pedagogical process.” Seeing the progress “from where they self-assessed at beginning to where they are now is exciting,” says Fletcher.

Figure 2

AN ADOPTION "CHASM" SEPARATES EARLY ADOPTERS AND THE EARLY MAJORITY

Technology adoption life cycle, as adapted in *Crossing the Chasm*



In Wake, implementation of EL Education’s coherent model, including instructional materials and embedded PL, began with frustration for teachers. Yet just a few months into the first year of implementation – Wake started with grades 3 and 8, and planned to add two grades per year – surveys showed that 70-80 percent of teachers were excited about the new instructional model.¹³ In fact, Wake expedited the full implementation to all of grades 3-8. Student outcomes data also are showing signs of upticks and reduced disparities, though the Wake team recognizes that widespread progress may take several years to emerge clearly.

In East Ramapo, early literacy gains already are appearing (Figure 3). The district is optimistic that

further gains will materialize as teachers and schools become more comfortable with the new model and EL Education refines its support in partnership with the district.

Tulsa, Wake, and East Ramapo are only three of a growing set of Early Adopter districts finding success with coherent instructional models. EL Education, for instance, is helping to implement its coherent model in Detroit, MI and Tucson, AZ, while Teaching Lab – like Leading Educators, a PL-design organization that helps districts create conditions for successful PL fueled by teacher leadership – is working with districts or groups of educators in six states around the country, including in implementing EL Education’s curriculum in Shelby County, TN.

Yet even defining coherence broadly to include a variety of curricula and support approaches, only students in a subset of grades, in a subset of subjects, in a very small subset of districts are benefiting from coherent instructional models.

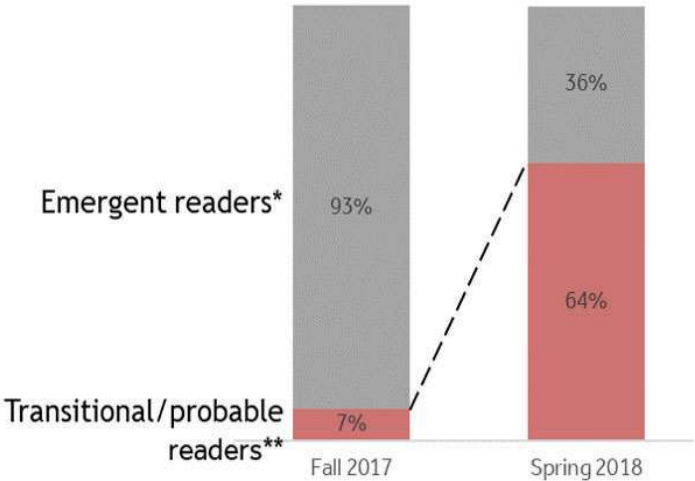
Moreover, proponents of coherence cannot expect that these early successes will build momentum for a tidal wave of uptake. In fact, there are several reasons to expect that coherent instructional models face a chasm between these Early Adopters and the status quo in K-12 education.

Three fault lines may create a “coherence chasm”

Moore highlights major differences between Early Adopters and the Early Majority in their views on the track record, compatibility with existing systems, and reliability that new products or services must bring (Figure 4). In each case, the Wake County, East Ramapo, and Tulsa experiences illustrate the importance of visionary Early Adopters in creating traction for coherence but also the ways in which their experiences may inhibit broader adoption without changes to the models or market.

Figure 3
AFTER ONE YEAR WITH EL EDUCATION'S COHERENT MODEL, DATA SHOWS LITERACY GAINS IN EAST RAMAPO

% of second graders¹⁶



*STAR assessment score = 300-674

** Score = 675-900

Source: Wortham (2018).

1. COMPATIBILITY

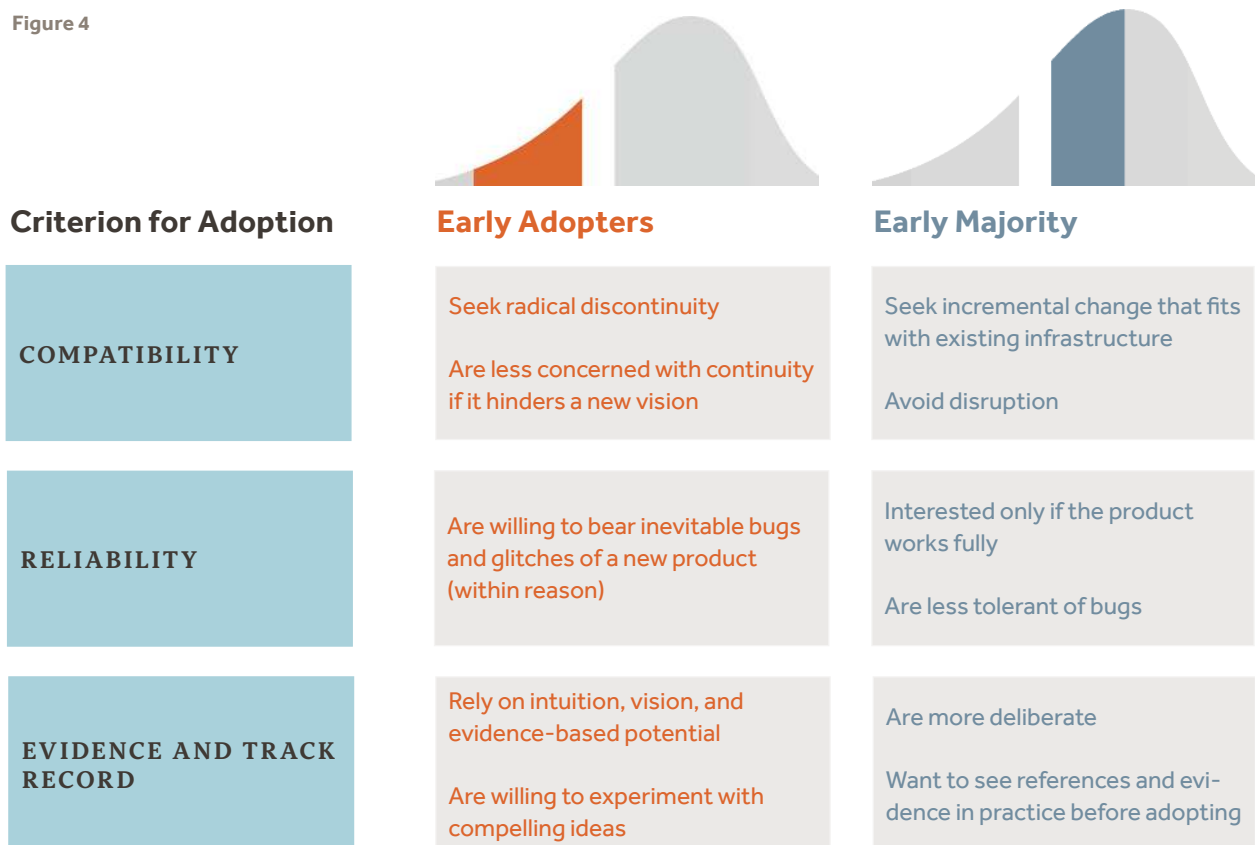
Moore notes that for the Early Majority, new models must “integrate appropriately with their existing technology base.”

Continuity is less crucial for Early Adopters – in fact, Moore notes, Early Adopters often consciously seek “radical discontinuity.” And if so many aspects of instruction and materials are changing at once, interoperability with previous systems holds less weight than compatibility within the new model. When East Ramapo Superintendent Deborah Wortham told a local paper upon her arrival in the district that “everything is first,”¹⁴ that may have been another way of saying, “Everything is up for change.”

The risk, of course, is that so much change at once can generate internal incompatibility as administrators, educators, students, and other stakeholders try to make sense of the new reality. Early Adopters, though, are willing to put in the investment needed to coax that internal compatibility into fruition. For example, the Tulsa team realized that alignment between providers “doesn’t happen if we don’t have a strong point of view,” says Fletcher. To that end, the district established new structures to facilitate coherence, including content teams that work with Leading Educators and ERS day to day and collaborative walkthroughs across partners.

THREE KEY CRITERIA SEPARATE THE EARLY ADOPTERS FROM THE EARLY MAJORITY

Figure 4



Additionally, the district convenes partner meetings every six weeks to ensure partners are aligned. The meetings get into the “brass tacks” of coherence, says Fletcher. For instance, “most organizations use some form of Student Achievement Partners’ form for their walkthrough protocols. So, let’s just use one common tool.” The objective is that “our schools shouldn’t see TNTP, ERS, and Leading Educators; they should see one team of folks working to realize the vision they’re setting for their schools.”

The Early Majority, by contrast, often feel alienated by visionaries who dismiss existing systems or infrastructure.¹⁵ The paradoxical result is that, in many cases, “Early Adopters do not make good references for the Early Majority.” At the same time, as noted above, “because of the early majority’s concern not to disrupt their organizations, good references are critical to their buying decisions.”

This dynamic poses a dilemma for purveyors of coherence. On the one hand, the examples discussed here are succeeding precisely because of their break with existing practice and the holistic approach the districts are taking to teaching and learning. On the other hand, these districts’ willingness to deviate from the norm might render them unconvincing, even alienating, to other districts if these references cannot address the Early Majority’s concerns.

2. RELIABILITY

“Being the first,” Moore writes of Early Adopters, “they also are prepared to bear with the inevitable bugs and glitches that accompany any innovation just coming to market.” Early Adopting districts of coherent models know all about those bugs and glitches. Wake’s Senior Director of Curriculum Development, Denise Tillery, notes that PL sessions ideally would have begun months earlier. Likewise, teachers following the year-round calendar were frustrated at first by not having curriculum materials in time for the first two weeks of school and because they did not have enough time to get comfortable with the curriculum prior to using it for instruction.

Danielle Neves, Tulsa’s Executive Director of Curriculum and Instruction, remembers similar challenges in her district. One day last summer, an elementary school “got 30 pallets of orange boxes” filled with CKLA materials. “We were not at all ready.” Although teachers use all the material when fully implementing the curriculum, “just getting teachers to the point where they’ve read the text well enough to prepare” was difficult. Meanwhile, Fletcher recalls, “We didn’t have strong enough structures in place to facilitate the work, such as to determine who owns and makes decisions.” He believes the district underestimated the changes that would be needed, including the difficulty in ensuring alignment across several partners supporting different aspects of Tulsa’s coherent model.

These Early Adopters had the vision, commitment, and buy-in of teacher-leaders to persist. The Early Majority, conversely, may be less forgiving of challenges like those experienced in the three districts profiled here. “Above all,” says Moore, “they do not want to debug somebody else’s product. By the time they adopt it, they want it to work properly.” Since the “it,” in the case of coherence, might include

several providers working together (as in Tulsa), the opportunities for bugs and gaps are even greater than with a single new product or service.

Multiple stakeholders add additional complexity to this criterion. In particular, whereas decision-makers who run procurement of materials and services may focus on the criteria above, many educators who interact directly with students will have additional needs, such as materials that successfully engage and are relevant to students. For example, interviewees report that students' increased engagement in ELA classes was a key driver of Wake County's decision to expedite the districtwide implementation of EL Education's model.

This dynamic underscores the importance of involving and empowering various stakeholders as leaders in the selection and implementation process, especially in Early-Majority districts where having a broad base of buy-in to the new model might help assuage district leader concerns about large change. For example, Tulsa convened a "committee of teachers, district staff, content staff, and parents" that reviewed materials intensively, solicited input, and recommended a new curriculum, reports Neves.

3. EVIDENCE AND TRACK RECORD

When district leaders in Wake County, East Ramapo, and Tulsa made the decision to craft coherent instructional models, they had few well-established references on which to rely. Instead, they grew convinced of the value of coherence because it fit a strategy they had carefully crafted. Like Moore's prototypical Early Adopters, they had to rely in part on their "own intuition and vision," generated by years of experience – and, through their intensive strategic planning process, by a range of stakeholders – that allowed them to "appreciate the [potential] benefits" of a new approach. Because these districts had put in the effort to set comprehensive, actionable, evidence-based visions that teachers had helped craft, they were comfortable moving forward with young, coherent models that aligned better to those visions than more established curricula and supports.

The Early Majority, conversely, "want to see well-established references before investing substantially." Evidence of student outcomes may take a couple years to emerge clearly in the districts profiled here, which makes establishing that track record an even higher hurdle to clear. It also makes the references provided by these Early Adopters that much more important in bringing others on board – yet those references need to speak not only to impact, but the ease and practicality of achieving it.

The chasm must – and can – narrow

In sum, for coherent models to scale, they must fit within what already is in use and valued by a broad range of districts and stakeholders, they must work well without significant exceptions, and they need to have been shown to deliver measurable impact.

That's a tall order for models that have only begun cutting their teeth at the district level in recent years. None of these gaps is insurmountable, but all require focus and investment. As a result, the coming years are a crucial time to prepare coherent models to cross the chasm so that they can reach the many students and teachers who could benefit from them.

Philanthropy has a crucial role to play in this development.

Part Three



Photo by nappy from Pexels

The next five years present a unique window of opportunity for investments to prepare coherence for scale

Investments to date in coherence have enabled the development of impactful models that are producing powerful results in districts using them. Now, strategic investments – many of them with recyclable capital – could have outsize impact in making those results scalable. Several of these opportunities will help attract Early Adopters, too, but will become increasingly crucial as the chasm approaches.

Three opportunities loom particularly large for grantmakers and mission investors to help coherent models serve the Early Majority more effectively:

1. Increase compatability with existing systems by promoting collaboration with continuous improvement efforts that build on the successes of coherent models

These efforts can illustrate how coherence can integrate into the systems districts already are using while generating insights on how to improve that integration. For example, the Bill & Melinda Gates Foundation-funded Networks for School Improvement invests in “partnerships between networks of schools and school support organizations.” The networks build on the finding that one of the six essentials to successful networks is coherent systems of instruction and provide opportunities to further establish the track record of coherent models while increasing their compatibility what schools already are doing (and, for that matter, to identify bugs and thus improve reliability, too).¹⁷

Other funders engaged in place-based work – like the Hewlett Foundation, which is exploring place-based teaching and learning investments – also could help coherent models engage in continuous improvement and compatibility-building in the systems they are supporting.¹⁸

In participating in these networks and efforts, providers of coherent models may have to design for alignment not only to each other – “a vision of integration sounds so exciting,” says Neves,” who encourages providers to seek “opportunities to make portfolios” with each other – but to strong market incumbents, too. Providers may see that as a drawback, but proponents of coherence cannot expect most districts to leapfrog current incumbents to pursue coherence like the Early Adopters have. As providers who advocate coherence seek to win over districts who “want evolution, not revolution,” it will be important to act more incrementally by designing for compatibility with dominant incumbents as a pragmatic interim approach.

2. Improve reliability by providing recyclable capital for iterative product development

Recent enthusiasm for high-quality curricula, assessments, and supports resulted in substantial grant funding for organizations like EL Education and Illustrative Mathematics to develop products that address both quality and coherence. However, educational product development is not a “one-and-done” endeavor – McGraw-Hill, for instance, released a new K-6 ELA curriculum in 2016, four years after it released an earlier product for the same purpose.¹⁹ That type of refresh or reinvention is feasible for an organization with \$1.7 billion in annual revenue.²⁰ For newer, coherence-focused organizations, revenue and margins are not yet sufficient to fund this continuous improvement.

In fact, capital needs for growth and iteration may be higher than for initial development of coherent models, but much of it can be low-interest loans or equity-like investments, rather than grants – and if providers can cross the chasm, they might well be self-sustaining in the near future.

EL Education CEO Scott Hartl, for instance, emphasizes that his organization has developed a sustainable business model for maintenance of content and creation of assessments, but Early Adopters are “struggling with the downsides of things we didn't get right”:

“The curriculum should be 40 percent shorter, it should be created in digital form with better interaction between teachers and the product, and it needs a better data tool. All those things are shovel-ready – we know how to do them – but we’re starting another round of implementation efforts with roughly the same product because we’re not capitalized to iterate.”

The Early Majority are much less tolerant than Early Adopters of bugs. Capital to fund improvements in coherent models and materials could help ensure reliability, thus facilitating adoption by Early Majority districts, and ultimately creating a path to financial self-sufficiency for the providers.

In a similar vein, funders also could provide recyclable capital to content and platform providers working to build alignment into their products and services, seeking to build visibility for existing coherent offerings, or even to help support a sales team for curriculum, PL, and assessment providers to reach out together to districts with a jointly developed suite of offerings.

3. Increase the influence of evidence through rigorous research on coherent models, leader peer engagement, and supportive infrastructure

The Early Majority, risk averse and pragmatic, depend on evidence of usefulness and efficacy when making decisions. Support for research to this end can build on efforts like the recent randomized evaluation of EL Education’s Teacher Potential Project, which generated the results cited in Section 1.²¹

Sarah Johnson, head of Teaching Lab, encourages investment in data sharing arrangements between providers as a way to expand the evidence base more quickly. “I know that it’s hard to share data,” she says, “but that would be a tremendous step for field-building.”

As the evidence base builds, the most powerful ways to disseminate it are through the relationships held by leaders who adopt coherent models. One review of the research on which Moore’s theory rests notes that the Early Majority’s “interpersonal networks” are “important in the innovation-diffusion process,” while other research suggests a threshold exists where innovations become increasingly attractive to decision-makers as more members of their network adopt them.²² If funders can help deepen social ties between leaders of Early Adopter and Early Majority districts and teachers – such as by funding networks of districts and teachers to explore instructional innovations and evidence, and lifting up the voices of teachers seeing results with coherence – the chasm separating the two groups may become less salient.

These efforts – and the three additional ideas in Figure 5 – are not replacements for providers’ direct

efforts to appeal to the Early Majority, nor are they panaceas that will erase the chasm. But the high potential benefit (i.e., the rapid uptake that can occur when an idea overcomes that gap) and lowered risk (i.e., given proven results to date) suggests these steps to support chasm-crossing are high-value opportunities.

THREE MORE IDEAS TO HELP COHERENCE CROSS THE CHASM

Figure 5

- 1.** Bring credible transparency to help decision-makers and teachers identify products and services that are well-aligned to each other, such as by adding guidance on that alignment to materials reviews (e.g., from EdReports) or vendor guides (e.g., like those put out by Louisiana and Rhode Island²³).
- 2.** Help Early Majority districts aggregate their demand for coherent models to shift the focus of providers' product development, such as by supporting efforts to convene interested district leaders for collaborative design of RFPs for materials.
- 3.** Fund more capacity for organizations that help districts align systems and resources for implementation of coherent models. As coherence approaches the adoption chasm, organizations that help facilitate compatibility between instructional supports, a district's vision, and school structures and resources may become increasingly important.

Conclusion



A running start to cross the chasm

Coherence may not be a new concept intellectually, but it remains sparse in practice. As some of the country’s most innovative districts charge ahead with new instructional models that combine quality and coherence, their lessons serve as guides for what it will take to scale these models. Just as improvement in student outcomes isn’t a one-year achievement, so is the fieldwide drive toward coherence not a short journey. But persistence is worth it. Take it from a teacher whose district is implementing one of these models. This teacher was writing to peers, but the words’ relevance is much broader:

“There’s been a lot of talk among teachers that the curriculum is too challenging and it doesn’t meet the needs of our lowest learners. Honestly, I had the same thoughts... I was dreading [the most recent unit], especially for my Special Education students.... Surely they could not do this. I was going to have to give them A LOT of support. At the end of their first drafts I conferenced with each of my students. I got to two of my lowest learners and was absolutely stunned with what I saw.

Yes, this curriculum is huge and overwhelming. Yes, there are times you will feel like your kids aren’t getting it and that it’s too difficult. Yes, you may have those ‘teaching disasters’ where you feel like nothing is working. You may feel like it’s out of reach for your kids, but give it a chance. You may not notice it at first, but ALL of your kids are learning.”

Appendix A: Full case studies for Tulsa, Wake County, and East Ramapo

It had been roughly a decade since Tulsa Public Schools had chosen new math, ELA, and science materials when Danielle Neves became Executive Director of Curriculum and Instruction in fall 2014. Just months later, the state repealed Common Core, leaving the district without a clear direction on instruction and materials.²⁴ Moreover, TNTP had helped the district discover major gaps in instructional materials (e.g., many students rarely used complex texts) and Neves – who now is TPS’ Deputy Chief of Academics – encountered a “lack of trust between schools, teachers, and the central office” cultivated in previous curriculum adoptions.

Over the next few years, the district of roughly 40,000 (and declining) students – of whom 78 percent are economically disadvantaged, 76 percent are students of color, and one in five is an English-language learner²⁵ – revamped its approach to materials selection. Recognizing that “a secret ballot based on thirty options that few people have reviewed is not how we select the best materials,” says Neves, district leadership first identified options that seemed reasonably likely to align with the district’s strategy and standards and convened a “committee of teachers, district staff, content staff, and parents” that reviewed materials intensively, solicited input, and recommended a new curriculum.

The committee rated several K-5 ELA options highly, and in the spring of 2016 it recommended Core Knowledge Language Arts for adoption (see Table A1 below for a profile of each of the three cases covered here).

Brian Kingsley arrived in Wake County, NC, in 2015 as Assistant Superintendent of Academics to a “pretty glaring” gap that TNTP had identified between the quality of the district’s instructional materials and its goals for standards alignment and rigor.²⁶ Sherri Miller, Wake’s Director of Literacy, recalls that in past materials adoptions, the district would “bring 10 vendors in one large room and give everyone 30 minutes to present,” says Miller, during which providers enticed reviewers with “goodie bags and keychains.”

This time around, as the district looked to select grades 3-8 ELA materials, Kingsley asked the team to set a proactive and coherent vision for its instructional system and adapted the widely used Instructional Materials Evaluation Tool to assess candidates’ alignment. It “was such an exciting time for us because of the inspiration and hope it gave,” recalls Denise Tillery, Senior Director of Curriculum Development, “but it was also alarming to discover that for so many years we were providing resources that didn’t support the standards.”

After extensive review, teacher pilots, and community feedback, the Wake team selected EL Education as a provider of both materials and job-embedded PL because of its alignment with the district’s vision

and the internal coherence within the grades 3-8 model. Wake “really hit it out of the park” with its 14-month stakeholder engagement process, notes Amy Bailey, EL Education’s Senior Director of Curriculum Implementation. Although Bailey at first was concerned about the intensity of engagement that Wake requested of her nonprofit organization and the other finalists during the selection process, she was quickly struck by the degree to which “teachers were feeling empowered that they were a part of the decision.”

Meanwhile, an hour north of Manhattan, East Ramapo Central School District was reeling. A divisive local funding conflict had led to 445 positions being cut and intervention from the state.²⁷ When Dr. Deborah Wortham became superintendent in 2015, reading proficiency rates in this district, where over two-thirds of students are free and reduced-price lunch-eligible and nearly a third are English language learners, were under 15 percent.²⁸

Seizing the moment, the district spent 2016 crafting a unifying vision, mission statement, and strategic plan built around a comprehensive view of student development, and anchored in developing social, emotional, and academic readiness in grades K-2. Dr. Wortham explains, “Our approach to education is holistic: with the efficacious belief in the capacity of our students, we educate the whole child.”

This process, as in Wake, led them to select EL Education as both a curriculum and PL provider. Nateasha McVea, Assistant Superintendent for Curriculum and Instruction, notes, “East Ramapo CSD’s coherent approach to academic achievement and school improvement encompasses a standard-based alignment of curriculum, practice, and partnerships. EL Education’s integrated curriculum aligned seamlessly to our vision of proficiency for adults and students.”*

* More detail on the Wake County and East Ramapo cases can be found in the accompanying [article](#)

DISTRICT PROFILES³²

Table A1

Category	Tulsa, OK	Wake County, NC	East Ramapo, NY
Total students	38,625	160,467	9,010
K-8 students	26,908	110,175	5,931
Students of color	75%	53%	95%
English-language learners	18%	7%	32%
Free and reduced-price lunch students	80%	34%	71%
Materials	CKLA	EL Education	EL Education
PL design and instructional supports	Leading Educators, TNTP	EL Education, TNTP	EL Education
Systems-design supports	ERS	EL Education	EL Education
Early results with the new model	Conditions in place to facilitate content-aligned PL	Signs of reduced disparities between student groups	Dramatic increase in early-literacy proficiency

Knitting a coherent system

As successful as these materials selection efforts were, none of the district teams was content to stop there. In each case, the districts have sought to build a coherent model comprising materials, professional learning, and assessments, and to align their district systems and resources with that model.

In Wake County and East Ramapo, that has meant a close and collaborative relationship with EL Education, who is providing core materials, PL, and other support. EL Education’s team, led by Christina Lesh, worked closely with Dr. Wortham’s team to develop several implementation options and provide intensive, classroom-level support for teachers.

Like East Ramapo, Wake asked EL Education to provide PL in addition to materials - and not just in a way that delivers content (which often is a part of traditional textbook adoptions), but that drives instructional shifts and teacher learning. The fact that EL Education’s materials are open resources helped make this structure possible, as it freed up budget that could be invested in PL tied specifically to the content (though Miller notes that the decision to adopt EL Education was made on a cost-blind basis).²⁹

The Wake team has found coherence across content and instructional supports to be crucial given the

pedagogical changes inherent in the EL Education model. Wake's Senior Administrator for Middle-School ELA, Kathy Toma, explains, "We'd love to have [substantial] professional learning regardless of resources, but with EL Education, it's really a paradigm shift for many of our teachers, and for us as a county. It's not just like adopting any resource, which would be a big change. It's a paradigm shift in terms of pedagogy."

Tulsa, meanwhile, has pieced together a suite of aligned supports from different providers. Devin Fletcher, who came to Tulsa as Chief Talent and Learning Officer in fall 2016, recalls, "We didn't have strong enough structures in place to facilitate the work, such as to determine who owns and makes decisions."

In particular, resource allocation would have to change. "CKLA takes a long time," notes Neves. The curriculum requires "120 minutes for K-2, 150-180 in grades 3, and 90 in grades 4-5." The result is that, without thoughtful design, either the curriculum would be implemented poorly or "lots of other things would fall off in K-3."

The district called on Education Resource Strategies to help refine "where we invest money as a district" and Tulsa's "strategic school design," says Neves. ERS' Genevieve Quist Green knew that curriculum implementation would look different when "we're not just asking teachers to use a different textbook, but asking them to think through their pedagogy in the context of new content and how teachers should learn new instructional strategies." Everything from "big picture system decisions" to "school-level decisions" can be extremely important. For instance, ERS helped TPS create cost-neutral schedules to more than double the amount of collaborative planning time that teachers have available to meet in content-specific teams and to ensure funding for high-impact teacher-leader roles.

Early in the 2017-2018 planning year, it was clear that shifting teachers' mindsets would be among the most complex and important steps. Nicholas Cains, a coach for Leading Educators who had transitioned to CKLA while a second-grade teacher in Tulsa, remembers the curriculum being a "big shift." For instance, whereas previous curricula focused on teaching skills separately, CKLA starts with a complex text and asks teachers to help students "pull out the skill from there," which can be "very uncomfortable for teachers."

In May 2018, to remedy what Neves calls the "gap between where we were in instructional practice and where we needed to be," the district asked Leading Educators to design content-aligned PL. As the district rolls out CKLA to all its elementary schools over five years, Leading Educators is "building a foundation for ongoing learning," says Fletcher.

The organization uses three-week, curriculum-specific "content cycles" to help teachers collaborate, understand the materials, and improve practice. In the first week, small groups of teachers engage in shared learning around the next segment of the curriculum. Peers coached by Leading Educators

serve as facilitators. In the second week, teachers plan and practice lessons. In the third week, they analyze student work samples and formative assessment data to assess progress, before moving onto a new unit. As in Wake County and East Ramapo, PL for district and school leaders also occurs to help ensure coherence. (Figure A1 below contains another example of how PL designers and providers approach coherence in practice, based on Teaching Lab's approach.)

Coherence between the various service partners is crucial to the district's success. Over time, says Neves, "all these things came together well. ERS helped figure out what would be possible. The first big pivot was creating 90 minutes of collaboration time once per week. That was far from the status quo. It required going back to the drawing board. ERS provided the capacity to figure out those protocols." Next, "Leading Educators came in to support school leaders in supporting teacher leaders in content-focused collaboration by providing adult learning curricula based on research on literacy and equity." Finally, "we connected all this back to the TNTP support through their ongoing vision walks" that help schools identify instructional priorities.

Over time, TPS has taken more ownership over ensuring coherence across its partners. "We've realized that this [alignment] doesn't happen if we don't have a strong point of view," says Fletcher. Consequently, there has been "strong work on internal teams to put stakes in the ground on what we want and expect."

To that end, the district established new structures to facilitate coherence, including content teams that work with Leading Educators and ERS day to day and collaborative walkthroughs across partners. As Leading Educators' Senior Director of Networks Elizabeth Hemphill explains, "There was a lot of working on aligning school priorities, and then ERS led schools in creating master schedules that allowed for teams to meet for collaborative planning" – work that continues as implementation occurs. Additionally, the district convenes partner meetings every six weeks to ensure partners are aligned to get into the "brass tacks" of coherence, says Fletcher. As noted, the objective is that "our schools shouldn't see TNTP, ERS, and Leading Educators; they should see one team of folks working to realize the vision they're setting for their schools."

Persisting to progress

Despite initial frustration among teachers in Wake, just a few months into the first year of implementation – Wake started with grades 3 and 8, and planned to add two grades per year – most teachers were excited about the new instructional model. As literacy lead Shanta Lightfoot recalls, "Developing comfort takes the entire first quarter and even the second quarter. It's a heavy lift for teachers. But by the second and third quarters, I started getting emails that said, 'Oh, my gosh, you would not believe what my students can do!'" In fact, 70-80 percent felt that EL Education (and other new math materials) were high-quality, standards-aligned, and matched to the district's vision.³⁰ As a result, Wake expedited the full implementation to all of grades 3-8.

Student outcomes data also are showing signs of upticks and reduced disparities, though the Wake team is taking the long view. “Implementation science says it’s 3-5 years before we’ll see the effects of our work,” says Toma. Nevertheless, “when we’re out in schools, we see all students engaged in the reading and the writing, and interacting.” Moreover, the quality of student work is increasing. “It’s not

Figure A1

WHAT COHERENT PL LOOKS LIKE IN PRACTICE

Teaching Lab is a curriculum-specific PL designer and provider that arose when a group of West Virginia teachers who sought improved instructional supports devised and piloted a teacher-driven PL model of their own.³³ Teaching Lab’s model builds on the three components for effective PL: the “head” (core content aligned to specific materials and practices), “heart” (teacher-led community), and “habits” (repeated cycles of inquiry). Coaches facilitate cycles of support timed around the curriculum being used, with an eye towards developing Lab Leaders who can facilitate the training as Teaching Lab steps out over time. As CEO Sarah Johnson explains, “we develop teacher leaders really intentionally, as we think they are vehicles for instructional coherence and sustainability of that coherence over time.”

The coaching sessions aim both to advance teachers’ intellectual understanding of the materials as well as to “feel what it’s like for students,” says Max Wagner, one of the co-founders.

For instance, in a recent session on a coherent model’s middle-school writing module, teachers started by drafting a mostly unprompted essay about freshwater ecosystems. They then engaged in peer feedback, followed by content-knowledge building, followed by re-writing and additional peer editing - a process much like that encouraged by the curriculum for use with students. Interspersed in these activities were discussion of the research behind the approach. Finally, teachers had time to plan collaboratively for teaching the module in their classes.

This PL approach is constructed to build teachers’ practice and sense of efficacy with a new model. “It’s a different type of planning,” explains Director of Partnerships Auddie Mastroleo. Over time, “it takes a lot off your table and lets you focus on more creative work.”

It also builds teachers’ confidence. As one teacher commented at the end of the training, “I used to think [this curriculum] was difficult to implement with students, but now I think that [it] can be broken down into manageable lessons and presented effectively.”

just a one-and-done performance task.” Rather, “we’re seeing students go back again and again” and “really taking pride in their work.”

In East Ramapo, early literacy gains already are appearing, as noted in Figure 3. The district is optimistic that further gains will materialize as teachers and schools become more comfortable with the new model and EL Education refines its support in partnership with the district.

Tulsa is in the first year of its five-year districtwide rollout of CKLA. Nevertheless, there is preliminary evidence that the coherent system is improving implementation there, too.

Leading Educators’ internal research suggests Tulsa has put in place the conditions that the organization has found to be important in succeeding with new curricula – including distributed instructional leadership, aligned assessment, enabling master schedules, and limited priorities – to a higher degree than other places in which Leading Educators works. This finding, Leading Educators believes, “underscores the value” in cultivating systems that ensure coherence, as Tulsa has “done with Education Resource Strategies.”³¹

Beyond that, notes Erin Davis, a former teacher who leads the Tulsa team for Leading Educators, the organization’s walkthroughs suggest that the instructional supports are changing teacher practice. “For example, in K-2, on walkthroughs we are looking for if the teacher is focusing on a single sound-spelling pattern.? Do they give students meaningful practice time? Are they using an aligned decodable text? The data look really promising so far.”

Appendix B: Charles and Lynn Schusterman Family Foundation's Aligned System for Professional Learning framework (working draft)

School and System Conditions*

Strong Instructional Leadership at the School Level, including a principal who:

- Sets a standards-aligned instructional **vision** for student results and equity
- Fosters a **culture** of adult learning, continuous improvement, and relational trust; leads towards equity and against bias
- Ensures that content and pedagogical **expertise** is modeled and valued and that there is access to true experts, both internal and external
- Distributes **leadership** so that teachers are given opportunities and recognition for helping their peers learn; rigorous selection and training of leaders
- Anchors **observations and feedback** around content- and grade-level-specific rubrics
- Protects **time** – and ensures its effective use -- for teachers to plan and learn together regularly

Aligned, High-Quality Curriculum that reflects the full demands of the state's college- and career-readiness standards, including:

- Comprehensive **instructional materials** and supplementary materials that include scaffolding for diverse learners
- Comprehensive **assessment strategy**, including interim and summative elements.

Aligned School System Structures support teachers' and school leaders' ongoing learning by:

- Anchoring on a standards-aligned instructional **vision** for student results and equity and aligned, focused **priorities** that are informed by evidence of student learning
- Employing **human capital systems** (e.g., hiring, induction, compensation, evaluation tenure, and career pathways) that work together to reinforce and value content and pedagogic expertise; using **performance management** systems that align to and reinforce content-specific instructional practice and that hold leaders responsible for quality of teaching and teacher supports and learning
- Building the **capacity of leaders** of PL through standards-aligned tools, protocols, resources, and training grounded in best practices
- **Evaluating PL** quality and impact on teacher mindsets, instructional practice, and student learning; making ongoing improvements
- Deploying **PL resources** strategically and equitably, including dedicating time in master schedule and calendar for collaborative planning and learning (>50 hours/year recommended)
- Holding schools and central office **accountable** for, among other outcomes, growth in teacher practice and student learning

**Conditions listed under school or system level may live in different places in different systems.*

Job-Embedded Professional Learning

What PL Addresses:

- Develops teachers' **content knowledge** and **pedagogical content knowledge**, including high-leverage, research-based instructional practices
- Develops **data literacy** and emphasizes evidence-informed decision making
- Supports teachers in effectively **engaging students** in rigorous tasks, including students with unfinished learning
- Supports teachers in **skillfully using and adapting curriculum** to meet diverse students' needs, advancing equity without reducing rigor
- Attends to teacher **motivation, mindset and implicit bias**; involves courageous conversations
- Supports teachers in **building relationships with students** to facilitate engagement and learning.

How PL Occurs:

- Built around, and supports implementation of, high-quality **instructional materials** and **assessments**
- Grounded in **evidence of student learning** (e.g., student work, assessment results)
- Includes **collaboration among teams of teachers** grouped by content area and grade levels
 - Using **cycles of inquiry** (e.g., learning, application, observation, reflection, and iterative adaptation)
 - Grappling together with lessons, tasks, texts, and student work as the **objects of study**
 - Led by educators (TL's, coaches) with deep content and pedagogical **expertise** and deep knowledge of the standards/shifts
- Includes **observation, coaching, and feedback**
 - Teachers have opportunities to observe exemplary teaching
 - Teachers' practice is observed regularly by experts who provide actionable, content-specific coaching and feedback in a low-stakes context
- Differentiates supports for **new and developing** teachers

Appendix C

List of interviewees

General interviews

- Amy Bailey, Senior Director of Curriculum Implementation, EL Education
- Renee Blahuta, Program Officer, W.K. Kellogg Foundation
- Liz Freitag, Curriculum Support Specialist, EL Education
- Ben Friedman, Research Director, EL Education
- Chong-Hao Fu, Chief Executive Officer, Leading Educators
- Sarah Johnson, Chief Executive Officer, Teaching Lab
- Rebecca Stanko, Director of Curriculum Partnerships, EL Education
- Judy Wurtzel, Senior Director of Education, The Charles and Lynn Schusterman Family Foundation

East Ramapo case interviews

- Ogechi Iwuoha, Assistant Superintendent for PD, East Ramapo Central School District
- Christina Lesh, Regional Director of New York and New Jersey, EL Education
- Nateasha McVea, Assistant Superintendent for Curriculum and Instruction, East Ramapo Central School District
- Deborah Wortham, Superintendent, East Ramapo Central School District

Wake County case interviews

- Shawn Johnson, Senior Administrator – Elementary ELA, Wake County Public School System
- Shanta Lightfoot, Senior PD Specialist – Curriculum Partnerships, EL Education
- Sherrill (Sherri) Miller, K-12 Literacy Director, Wake County Public School System
- Denise Tillery, Senior Director of Curriculum Development, Wake County Public School System
- Kathryn (Kathy) Toma, Senior Administrator – English Language Arts, Wake County Public School System
- Wendy Hodgson, Director of Curriculum Partnerships, EL Education

Tulsa case interviews

- Nicholas Cains, Instructional Leadership Coach – Empower Tulsa, Leading Educators
- Erin Davis, Program Director – Empower Tulsa, Leading Educators
- Devin Fletcher, Chief Academic Officer and Chief Talent Officer, Tulsa Public Schools
- Elizabeth Hemphill, Senior Director of Networks, Leading Educators
- Danielle Neves, Deputy Chief of Academics, Tulsa Public Schools
- Genevieve Quist Green, Director of School Design, and Caitlin Richard, Associate – Tulsa School Innovation and Design, Education Resource Strategies

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