

High-Quality Curriculum Implementation

Connecting What to Teach with How to Teach It



NIET

NATIONAL INSTITUTE FOR
EXCELLENCE IN TEACHING

Summer 2020

INTRODUCTION

The Potential of a High-Quality Curriculum

Research confirms what effective educators and policymakers know from practice: that the implementation of a “high-quality” curriculum – one that is aligned to rigorous state standards – leads to notable learning gains for students.^{1,2} Yet, only 40% of teachers report that they are using curricula that are “high-quality and well aligned to learning standards.”³ In a study of math curriculum usage that included 6,000 schools and over 1,200 teachers across six states, researchers reported that just 25% of teachers used the textbook in nearly all their lessons for all essential activities, including in-class exercises, practice problems, and homework problems. They also found that teachers received 0.8 to 1.4 days, on average, of professional development tailored to the curriculum they were using. Even a curriculum highlighted as being among those with the most support provided a total of only 1.6 days.⁴

In light of these findings, many districts and states have made the adoption of high-quality curriculum a priority and have marshaled considerable resources to this

end. A number of national organizations – including Chiefs for Change, The Education Trust, and The Aspen Institute – have called for the adoption of high-quality curriculum to ensure that all students have the opportunity to learn in an academically rigorous classroom.

This is a much-needed reform. It is especially critical for low-income students and students of color who too often attend schools with low-quality curriculum and learning materials. Without high-quality instructional materials, students are not challenged to work at a level that meets expectations for their grade level and often spend time on irrelevant or disconnected activities and assignments.⁵ As a result, low-income students and students of color are less likely to be given opportunities to think and problem-solve in more complex ways or reach the depth of knowledge necessary to meet state standards for college and career readiness.

In districts that lack a high-quality curriculum, teachers are forced to try to fill the gaps – spending hours looking for, or developing their own, resources or activities to better align to rigorous state standards.

¹ Chingos, Matthew, and Grover Whitehurst. 2012. “Choosing Blindly: Instructional Materials, Teacher Effectiveness, and the Common Core.” Washington, D.C: Brookings Institution.

² Jackson, C. Kirabo and Alexey Makarin. 2016. “Simplifying Teaching: A Field Experiment with Online Off-the-Shelf Lessons.” National Bureau of Economic Statistics, Working Paper No. 22398.

³ Educators for Excellence. Voices from the Classroom, 2020. e4e.org/teachersurvey.

⁴ Kane, Tom and David Blazer. March 2019. “Learning by the Book.” Center for Education Policy Research, Harvard University.

⁵ TNTP. 2017. “The Opportunity Myth: What students can show us about how school is letting them down – and how they can fix it.” Brooklyn, NY: TNTP.

This investment of time can be substantial. For example, 70% of teachers in Tennessee report spending more than four hours per week creating or sourcing instructional materials.⁶

The challenge of supplementing a low-quality curriculum is daunting even for experienced, highly skilled teachers. It can be overwhelming for inexperienced or less skilled teachers. Recent research on the quality of supplemental curricular materials available on three popular websites found fewer than 10% were “exceptional or highly likely to contribute to a quality curriculum.”⁷

Amy Drury – a second grade teacher at Barrera Veterans Elementary School in Somerset Independent School District (ISD), located just south of San Antonio, Texas, described a disjointed approach before the adoption of a new curriculum. “Before, we would have to fit various things together on our own,” she said. “Too often there was a disconnect between what we were teaching and what the standards were. We often ended up using piecemeal resources.”

Introducing a new high-quality curriculum offers the potential to address these challenges. High-quality instructional

materials are designed to engage students in a deeper level of learning, create a focused direction, and help teachers make connections across grade levels. This saves teachers from having to fit things together on their own or fill in gaps that may exist between the curriculum and the adopted state standards.

Faydra Alexander, director of leadership development in the Algiers Charter in New Orleans, puts it this way: “Using high-quality curricula is key to helping our students think in a more complex way and access the type of reading, writing, computing, and problem-solving they will face in college and beyond. We need to prepare our students for that.”

A high-quality curriculum provides more coherence and connection in the sequencing of learning between grade levels. Robert Pondiscio of the Fordham Institute highlighted the potential impact. “An excellent education is not just what gets taught today,” he said. “It’s the cumulative effect of a coherent, thoughtfully sequenced, and knowledge-rich curriculum that broadens and deepens over time, within and across grade levels.”⁸

⁶ Tennessee Department of Education. 2019. “Tennessee Educator Survey.” Retrieved from: https://www.tn.gov/content/dam/tn/education/data/2019-survey/Lessons_District_Leaders_Infographic.pdf

⁷ Polikoff, Morgan and Amber Northern. December 2019. “The Supplemental Curriculum Bazaar.” Education Next.

⁸ Pondiscio, Robert. January 2020. “Digging in the dirt for quality curriculum.” Washington, D.C. Fordham Institute.



Michael Anderson School, Avondale, Arizona

Implementation Challenges

Identifying and selecting a high-quality curriculum is the first step, but implementing it well is just as important. “I’ve never said it’s just about curriculum,” Baltimore City Public Schools CEO Dr. Sonja Santelises said. “What I’ve said is if you don’t have a strong curriculum, you’re not even starting in the right place.” She describes the adoption of a knowledge-rich curriculum as “the first half of chapter one.”⁹

While districts and curriculum providers offer a range of upfront training and some additional professional development sessions during the year for teachers, even the best training on a new curriculum provides limited opportunities for teachers to plan and refine how to use the materials.

Curriculum developers cannot anticipate or address all of the challenges that will arise once teachers begin using the resources with their students.

Less experienced teachers and new teachers, in particular, might not understand the content at the depth necessary to effectively teach it. Teachers often do not know how to locate and use curricular resources or whom to ask for help. For example, being able to identify where the curriculum might not be fully aligned to expectations in a state standard, or how to support students who are above or below grade level, requires significant content and instructional knowledge.

⁹ Pondiscio, Robert. November 2019. “Curriculum advocates: Prepare for a long, hard struggle.” Washington, D.C. Fordham Institute.

Teachers with students below grade level face an even bigger set of concerns with high-quality instructional materials. In these classrooms, teachers must work even harder to create strategies or build scaffolds for their students to successfully use the new materials. Districts and schools with significant numbers of students below grade level need to prioritize the inclusion of supports for these students in selecting a new curriculum and create professional learning that helps them to use these supports in their classroom. These schools require significant ongoing investment from the district to ensure that teachers have the help they need.

In addition, many principals are not adequately prepared to provide coaching on the curriculum, and district systems for ongoing professional learning are often disconnected from curriculum training. These challenges in implementation contribute to a lack of impact on classroom teaching and student outcomes. As Executive Director of the Johns Hopkins Institute for Education Policy Dr. David Steiner points out, high-quality curriculum without teacher supports is not going to have a positive impact. “Availability isn’t usage, and usage ‘in some fashion’ isn’t going to move the needle on student outcomes,” he said.¹⁰

High-quality curriculum sets the course for deeper learning and requires commensurate improvements in instructional skills to deliver rich, engaging lessons. To truly achieve equitable outcomes for students, adopting a high-quality curriculum cannot be a stand-alone goal. The curriculum must be implemented in conjunction with ongoing, job-embedded learning for teachers to understand how to adapt their teaching to the demands of the new curriculum. If we expect teachers to utilize the curriculum every day, we have to create a professional learning environment where teachers and school leaders are always talking about, planning, and designing instruction with the curriculum.

The introduction of a strong curriculum provides a key opportunity to restructure professional learning to better support the use of high-quality materials alongside effective teaching practices. This restructuring requires teamwork among multiple stakeholders at every level of the system, including district curriculum leaders, principals, coaches, teacher leaders, and teachers. Success in this work also involves communicating to parents the new expectations embedded in the curriculum and supporting them to reinforce their child’s learning at home.

¹⁰ Steiner, David. November 2019. “Staying on the shelf: Why rigorous new curricula aren’t being used.” Washington, D.C.: Fordham Institute.

Blending Curriculum and Instructional Support: Lessons Learned

For 20 years, NIET has worked with district partners across the country to improve classroom instruction. We have learned that the most effective professional learning blends support for “what” is being taught with “how” it is being taught.

Katrina Harris – a fourth grade teacher at Queensborough Leadership Academy in Caddo Parish Public Schools, a high-poverty district located in northwest Louisiana – knows firsthand the power of blending these supports. “It’s about taking the intended curriculum activities and understanding the alignment among the learning objectives, standards, and assessment, and then making instructional decisions that help students to reach the learning goal,” Harris said. Caddo Parish uses the common language of NIET’s instructional rubric to help marry the “what” and the “how” to maximize teachers’ success. Teachers receive feedback on the instructional strategies that help students own their learning to grow in their understanding of content.

Katrina also noted: “Teachers need to make effective use of academic feedback, student grouping, student differentiation, and other instructional practices that enable us to deliver the content in ways that support student success. When coaching and support

for curriculum and pedagogy are done together, it makes more sense to a teacher. It doesn’t feel like two separate decisions; it feels like one. You may not label them as ‘curriculum’ or ‘pedagogy,’ but you intuitively understand it’s good teaching.”

”

When coaching and support for curriculum and pedagogy are done together, it makes more sense to a teacher. It doesn’t feel like two separate decisions; it feels like one. You may not label them as ‘curriculum’ or ‘pedagogy,’ but you intuitively understand it’s good teaching.

—Katrina Harris, Fourth Grade Teacher

Working with NIET partner districts like Caddo, we have seen firsthand how more demanding instructional materials require significant improvements in classroom teaching to enable students to master higher-level content. That is why we are so committed to creating the conditions necessary for every teacher to have access to a high-quality curriculum and the instructional support that equips them to use those materials to accelerate student learning.

Blending Curriculum and Instructional Support: Lessons Learned

This paper outlines the lessons we have learned with our partners as they have adopted and implemented high-quality curricula in their schools, particularly those serving large numbers of low-income students. These six key lessons for implementing a high-quality curriculum are:

1. Focus on leaders first.
2. Create time, structures, and formal roles to support ongoing, school-based collaborative professional learning.
3. Adopt a research-based instructional rubric to guide conversations about teaching and learning with the curriculum.
4. Anchor coaching and feedback in the curriculum.
5. Recognize the stages of curriculum implementation and what teachers need to progress to higher stages.
6. Ensure that districts work closely with schools to plan for, communicate, and implement school-based professional learning that blends support for curriculum and instructional practice.

While the selection process for a new curriculum is critical to success, the lessons we share here focus exclusively on the challenge of implementing that new curriculum to maximize student learning. We also discuss how educators can continue to grow in curriculum implementation after the initial push.



Katrina Harris, Caddo Parish, Louisiana

1. Focus on leaders first.

Truly understanding curriculum and its connection to standards and assessment is complex and time-consuming work. If school leaders and their leadership team members do not understand the curriculum deeply, they will not be effective in supporting teachers to do the same.

Following a decision about what curriculum to implement, districts must provide sufficient time for school leaders and their leadership team members to understand the curriculum and its alignment with other elements of the broader instructional system, including standards, instruction, assessment, and evaluation and feedback. The investment leaders make in this early stage, before bringing the new curriculum into schools and classrooms, will pay dividends as other structures and systems are put in place to support implementation.

First, upfront training on the curriculum itself is essential to ensure leaders understand the scope and sequence, layout, and decision points within the curriculum. Unfortunately,

most districts do not provide much more than one day on this initial training.¹¹

“Teachers need at least 2-3 full days of upfront training and a handful of ongoing touchpoints throughout the year to take on their new curriculum,” said Rebecca Kockler, consultant and former assistant superintendent for academics at the Louisiana Department of Education. “This training should also be led by someone who is truly expert in the curriculum.”

Introductory training must then be followed by opportunities for collaborative work at all levels – district leaders, school leaders, coaches, and teachers. Several weeks or even months of leader engagement with the curriculum create a foundation of knowledge that is critical as the new curriculum is rolled out to teachers. This learning establishes the foundation for leaders to embed the curriculum in school systems and structures and continue to build on this knowledge throughout the year. “It’s not just that they know the curriculum, but that they know how to uphold the expectation that the curriculum is taught,” Kockler said. “That is an action orientation that is critical but rarely exists.”

¹¹ Kane, Thomas and David Blazer. March 2019. “Learning by the Book.” Center for Education Policy Research, Harvard University.

As a new curriculum is introduced to teachers, many may be resistant to changing their teaching approach and adopting the new materials. Having used other materials and resources for years, teachers may be concerned about completely abandoning familiar materials and often simply choose a few ideas or strategies from the new curriculum to supplement their existing lessons. Having teacher leaders and other school leaders discuss the rationale and strengths of the new materials is an important strategy for supporting teachers in implementing the new curriculum with fidelity.

As part of the training for district and school leaders, an important investment is to set aside the time to understand the “big picture” or arc of the curriculum and how it connects to adopted standards and current assessments. This investment in reviewing alignment within the instructional system enhances district and school leaders’ ability to analyze and address potential gaps among these elements, areas where the curriculum might not reach the level of rigor of the standards, or where additional resources and supports might be needed for students who are significantly above or below grade-level expectations.

Of course, opportunities to work collaboratively with peers to deepen knowledge of the curriculum “arc” and its impact on the instructional system should not be a one-time event but continue in professional learning opportunities throughout the year. NIET partner districts and schools use teacher leader roles and

weekly team meeting structures to ensure curriculum implementation is effective and aligned to all elements they use to make decisions for individual teachers and students.

One such partner is DeSoto Parish Schools, located 40 miles south of Shreveport in Mansfield, Louisiana. DeSoto has been recognized for its sustained growth, moving from a district ranking of 45th to 12th in the state. The district brings together district instructional leaders, school leaders, and teacher leaders to develop plans for how to maximize curriculum usage within the instructional system of the district. This includes weekly professional learning in each school.

Teacher leaders, called master teachers in DeSoto and other NIET partner districts, serve as members of the school leadership team, guide weekly professional learning teams, and coach in classrooms, putting them in a critical role for successful curriculum implementation. The district-level planning meetings ensure principals and teacher leaders are well-versed and comfortable with the new curriculum before supporting teachers in using it.

Master Teacher Jessica Parker at North DeSoto Upper Elementary School shared her experience. “The district gave us permission, and the time and space, to grapple with the curriculum,” she said. “Then, we worked together to figure out how to effectively use the curriculum to address the needs we were seeing in classrooms.”

Blending Curriculum and Instructional Support: Lesson 1

Monthly master teacher meetings provide an ongoing opportunity to dig into curricular needs with attention to improving instructional practices based in part on student work analysis.

This investment of time is also important in other districts. Goshen Community Schools, a northern Indiana school district with a large number of English language learners, adopted a new writing curriculum for grades K-8 at the start of the 2019-20 school year. To ensure that teachers and school leaders are comfortable with the new materials, the district conducts weekly professional learning for teacher leaders and principals. These weekly, 90-minute district-level meetings are modeled on the school-based professional learning system that has been in place in all Goshen schools for the past nine years.

“It has been invaluable to have time allocated by the district to learn how the new writing curriculum can be integrated into weekly professional development sessions. As a teacher leader, it’s essential for me to fully understand the new materials in order to support the classroom teachers in my school,” said Lauren Moore, a master teacher at West Goshen Elementary, which has improved from a D to an A rating on the Indiana state report card. “I’m grateful to have the opportunity to collaborate and learn from the other teacher leaders and principals in my district to ensure that our students are receiving the best instruction.”

Through this collaborative work, school leadership teams build a common understanding of when it is (and is not)

appropriate to make adjustments or instructional decisions while remaining within the curriculum. Marvin Rainey, a district-based instructional coach who serves as executive master teacher in Caddo Parish, noted, “Having consistent messaging to teachers was really important as challenges in classrooms started to arise. Scheduled, monthly, hourlong meetings helped master teachers from across schools to stay on the same page, discuss adjustments that needed to be made, and work through problems together. This strengthened the coherence and consistency of curriculum implementation districtwide while being responsive to the realities teachers were facing in their classrooms over the course of the year.”

”

This strengthened the coherence and consistency of curriculum implementation districtwide while being responsive to the realities teachers were facing in their classrooms over the course of the year.

—Marvin Rainey, Instructional Coach

These ongoing, collaborative learning structures for all levels of leadership also regularly elevate areas where additional coherence is needed to ensure teachers have what they need to align expectations with the resources they have, the data they are gathering, and the feedback they are receiving.

2. Create time, structures, and formal roles to support ongoing, collaborative professional learning at the school level.

Effective school-based, job-embedded professional learning requires creating time and space for teachers to work collaboratively. This time must be structured so it focuses on supporting teachers to address specific student needs. This is best done when schools create formal roles for school-based instructional leaders to guide this learning, such as the master teacher positions described in this report.

Teacher leaders, who may maintain roles as classroom teachers while taking on instructional leadership responsibilities, are uniquely positioned to support their peers and build capacity and buy-in for successful implementation of a new curriculum. Their content knowledge across multiple grades and subjects provides essential expertise in supporting teachers to deliver instruction using a new curriculum in classrooms.

In school systems supported by NIET, there are multiple teacher leadership positions, and these individuals are members of the school leadership team. For example, teacher leaders who are released from all or most regular classroom duties are called

instructional coaches or master teachers, as mentioned earlier. Master teachers serve on the school leadership team, design and lead collaborative professional learning, and observe and provide feedback on classroom practice for classroom teachers in their building. Master teachers typically support about 20 classroom teachers, although this varies based on school context and budgets. Teacher leaders who remain “teachers of record” for one or more of their own classes of students are mentor teachers. Mentor teachers are released several hours each week to work with a group of colleagues, supporting collaborative learning teams and providing individual classroom coaching, in addition to joining the school leadership team.



Principal Marco French (right) and Instructional Coach Marvin Rainey, Caddo Parish, Louisiana

Amber Simpson – former master teacher in Somerset ISD, Texas, and current NIET Senior Program Specialist – explained: “Teacher leaders were very involved in the committees that were established to evaluate new curriculum resource options. Once the new curriculum resource was determined, upfront training took place over the summer and during professional development days in the fall. Teacher leaders took that curriculum work and brought it into existing professional learning structures. The focus of weekly collaborative learning meetings is on pedagogy through the content – the coupling of strong instructional practices with the new curriculum.”

School Leadership Teams

Creating school-level leadership teams that include teacher leaders who serve alongside principals broadens the curriculum knowledge of the leadership team as a whole and supports school leaders’ work to align standards, curriculum, instruction, assessment, and evaluation and feedback. While this can look different based on school contexts, NIET has found that collaborative weekly professional learning teams and follow-up coaching for teachers require the following: 1) time embedded in the school day, 2) structures to guide the work, and 3) instructional leadership capacity to support the kind of sustained, applied learning necessary to impact teacher instruction. School leadership teams also must meet weekly to monitor and adjust plans for professional learning teams.

“In order to support teachers in the next learning cycle, leadership teams need to understand what the support looks and sounds like in the curriculum and what it will look and sound like in weekly collaborative learning teams,” Executive Master Teacher Nicole Bolen from DeSoto Parish Schools said. School leadership team meetings provide the opportunity for school leaders and teacher leaders to develop this understanding and plan how to facilitate this learning in collaborative professional learning meetings.

Collaborative Professional Learning Teams

To engage in focused problem-solving around the use of a high-quality curriculum, collaborative teams need regular time to meet every week for 60-90 minutes, and school leaders need to protect that time from competing demands. While principal support is crucial, teams are often more successful when led by trained and effective teacher leaders who implement the new curriculum in classrooms themselves and can show evidence of improved student learning.

“If teachers are struggling with the curriculum as written, a teacher leader might teach the curriculum in a classroom, try out the lessons, break down some of the important pieces, then bring back that work to the weekly collaborative learning team meeting and show how it impacted student achievement,” Bolen said. “They have to help teachers understand what this looks and sounds like and what student learning should be.”

Researchers have found that collaborative teams have a positive impact on student achievement when they “focus on a specific student learning need over a period of time and shift to an emphasis on figuring out an instructional solution that produces a detectable improvement in learning, not just trying out a variety of instructional activities.”¹² Ensuring teacher leaders have the expertise and skills to successfully lead professional learning teams is critical, particularly since professional learning so often lacks a designated leader, clear expectations, or an explicit connection to a teacher’s specific classroom challenges.¹³

Gadsden Elementary School District #32, near the border with Mexico in San Luis, Arizona, has strong, collaborative leadership teams across the district, which can help facilitate seamless implementation of districtwide initiatives. “We recently shifted to a new literacy program,” Professional Development Coordinator Vanessa Gonzalez said. “Because we already had strong structures for professional learning and a system of ongoing follow-up, the implementation of this new curriculum has been smooth. The weekly collaborative learning teams create a structure for the new curriculum to be taught to teachers.” This approach is showing impact, with five of Gadsden’s schools earning an A in 2018-19 from the state, many for the first time.

Protocols for Professional Learning

Teams are also more successful when the leader is trained to use protocols to guide a process of identifying student learning difficulties, developing new learning that connects curriculum with instructional strategies, and analyzing student work for evidence of impact. The use of protocols enables school leaders to monitor professional learning, hold teacher leaders accountable for successfully carrying out their new role and responsibilities, and provide support and training for teacher leaders to do their job well.

One example is NIET’s *Steps for Effective Learning* protocol, which provides instructional leaders with a systematic process to ensure that the valuable time teachers spend in collaborative team meetings is focused, productive, and useful. The steps help leaders facilitate meetings that are well planned and tied to specific student needs identified through data, introduce instructional strategies grounded in the curriculum, support teachers to plan how they will apply this learning in their classroom, and include a plan for measuring the impact on student learning. The Steps for Effective Learning are also used by leadership teams to identify and address challenges teachers are facing in curriculum implementation.

¹² Gallimore, Ronald, Bradley A. Ermeling, William M. Saunders, and Claude Goldenberg. May 2009. “Moving the learning of teaching closer to practice: Teacher education implications of school-based inquiry teams.” University of Chicago Press, *The Elementary School Journal*; 109(5), 537-553.

¹³ NIET. 2012. “Beyond Job-Embedded: Ensuring Good Professional Development Gets Results.” Santa Monica, CA: NIET.

Steps for Effective Learning



During curriculum implementation, the *Steps for Effective Learning* can help leadership teams target their support for teachers in the following ways:

- Target student needs using evidence (e.g., pre-test) that is clear, specific, high-quality, and measurable in student outcomes
- Connect student learning on the curriculum with instructional strategies
- Use credible sources
- Use curriculum-aligned strategies with proven impact on student learning
- Deepen learning of the curriculum through demonstration, modeling, practice, team teaching, and peer coaching with subsequent analysis of student work
- Practice with support from observations, peer coaching, and self-reflection; student work provides formative assessment
- Analyze student work and assessments (e.g., post-test) to determine next steps

The school leadership team at Queensborough Leadership Academy in Caddo, for example, used the *Steps for Effective Learning* to structure their classroom observations to understand whether teachers were making the instructional changes necessary to support the deeper student learning and

expectations in the curriculum. By reviewing student work and observing classrooms, the leadership team identified (Step 1: identify the need) that teachers were not teaching to the level of the exemplar in the curriculum or as required to meet state standards and expectations on the assessment.

Queensborough's principal, Marco French, explained, "The responses teachers were accepting weren't at the depth of the exemplar, the academic vocabulary wasn't there, and students were writing simpler sentences with reduced vocabulary. Students were being rated as proficient when they were not meeting the level of the exemplar. As a result, the level of rigor wasn't there."

This was happening across multiple classrooms, so the leadership team planned a professional learning cycle focused on "incorporating exemplars in lesson delivery" (Step 2: obtain new learning). During professional learning meetings, teacher leaders supported classroom teachers to plan how to practice this instructional skill using the curriculum for an upcoming lesson (Step 3: develop new learning).

They followed up after the meeting with classroom-level coaching for each teacher as they delivered the lesson (Step 4: apply new learning) and supported students at different levels of learning to master the content. Leaders used observations and student work to evaluate whether the professional learning resulted in teachers effectively delivering the lesson and the impact on student learning (Step 5: evaluate the impact). This process was essential in demonstrating to teachers that they could support their students to work with the new curriculum, including, most importantly, students who were below grade level.

Using a protocol helps both teachers and school leaders build their collective expertise

and create coherence in the ways they assess curriculum implementation, identify and diagnose problems, and provide feedback. Teacher leaders play an important role in helping principals analyze what should be happening in each classroom and what students are engaged in. Working as a team builds a greater level of expertise in knowing if students are on track to be successful in mastering the content across grade levels and subject areas. "Principals don't have to be experts in every grade and content area," Principal French said. "They do need to be aware of the structure of the curriculum and capable of accessing resources in order to point teachers in the right direction. Their leadership team as a whole needs to carry this consistency into professional learning."

Creating the time, structures, and formal roles for teacher leaders to support professional learning at the school level ensures classroom teachers have someone who knows the challenges they face and can offer learning tied to their context every week. The school leadership team members learn alongside one another, build trust in each other, get on the same page, and continually build their collective knowledge. School leadership team members model being lead learners and take the difficult step of "going first" in understanding the new curriculum and the challenges it will present to teachers and students. Their knowledge of the specific challenges of curriculum implementation and student learning in that school makes teachers more likely to engage in productive, collaborative professional learning.

3. Adopt a research-based instructional rubric to guide conversations about teaching and learning.

As districts and schools implement a new high-quality curriculum, having a shared vision and common language for describing, discussing, and collaborating around excellent instruction is critical. Without a shared understanding and language for instructional practice, teachers receive inconsistent and conflicting feedback, and leaders struggle to help them grow in their practice. This is particularly problematic when a new curriculum is being introduced that requires significant shifts in instructional practice. Districts need to think about what tools or processes they have in place to describe and measure curriculum implementation in classrooms; how these tools are used across different staff roles and content areas; and whether they are sufficient to help to build systems, share goals, and monitor curriculum implementation over time.

A high-quality curriculum typically requires more advanced teaching practices. This presents an opportunity to reset expectations around classroom instruction and develop the necessary supports for teachers to build their instructional knowledge and skills.

NIET district partners cite the adoption of an instructional rubric as a significant advantage in their work to support teachers in strengthening their instructional practices to effectively use high-quality instructional

materials. The instructional rubric (*Appendix A*) provides a common language for describing, observing, discussing, and planning effective instruction. It facilitates work to improve classroom practices – such as the use of questioning, providing academic feedback, and lesson structure and pacing – that are necessary to support student learning.

In addition, it equips instructional leaders within and across schools to use a consistent approach and common language to share ideas and grow their professional practice together. “Everyone is comfortable in what the indicators look and sound like in the classroom,” Assistant Superintendent Kellie Duguid, in Avondale Elementary School District #44 near Phoenix, Arizona, said. “Our content-specific collaborative teams talk about curriculum along with standards and assessment, all the components together, within the framework of the instructional rubric. The instructional rubric gives us a common language and lens to support professional learning.”

”

Our content-specific collaborative teams talk about curriculum along with standards and assessment, all the components together, within the framework of the instructional rubric. The instructional rubric gives us a common language and lens to support professional learning.

—Kellie Duguid, Assistant Superintendent

Using an instructional rubric helps teachers discuss how an instructional decision or skill, such as the use of academic feedback, supports students to better achieve the depth of knowledge required to master a learning standard. The rubric also provides a structure for addressing content-specific or curricular issues that are challenging teachers in the classroom.

For example, Master Teacher Jessica Parker and her colleagues at North DeSoto Upper Elementary School in Louisiana identified the rubric indicator “academic feedback” as an area needing improvement across a number of fourth and fifth grade classrooms as teachers were implementing a new English language arts curriculum. Teachers were providing feedback to students that was at a surface level and not soliciting the kind of deeper thinking necessary for students to master the lesson’s objectives. Other teachers needed support in engaging their students to provide high-quality, academically focused feedback to each other, another expectation in the new ELA curriculum.

Parker structured weekly professional learning for a group of fourth and fifth grade ELA teachers around improving academic feedback to strengthen a specific upcoming lesson in the curriculum. The new ELA curriculum required students to engage in deeper analysis and comparison of texts, and this required teachers to strengthen their ability to facilitate deeper engagement, thinking, and collaboration among students.

Teachers also needed to improve their ability to monitor student work, provide strong feedback during class, and adjust based on the feedback they were getting from students.

To address these needs, the professional learning team meeting was designed for teachers to share examples of student work illustrating the need for better academic feedback, discuss research illustrating why academic feedback is important to student learning, and learn how strong academic feedback can clarify goals and support students in understanding the criteria for success. The group discussed the differences between high-quality, academically focused feedback and more general feedback. Teachers analyzed their use of academic feedback in a specific lesson and how they might have strengthened it to be more actionable and personalized. Working in small groups, they reviewed an upcoming lesson and planned specifically where they could strengthen students’ understanding through more effective use of academic feedback. They ended the meeting by planning time for fourth and fifth grade teachers to observe each other’s classroom teaching and see firsthand how their peers were delivering this lesson.

The professional learning team in this example used the instructional rubric to guide a discussion around the specific ways that teachers could adjust their instruction to better deliver an upcoming lesson.

Through this work, teachers strengthened their understanding of how important instructional practice is to maximizing the impact of curriculum activities and materials on student learning.

Below is a description of the indicator “academic feedback” on the NIET Teaching Standards Rubric at different levels of effectiveness. This descriptive language

enables coaches and leaders to provide detailed, consistent feedback to teachers as they work to improve their instruction and build a common understanding of expectations. To unlock the power of a high-quality curriculum, teacher practice needs to begin to move beyond “proficient” into the higher levels of practice described as “exemplary” in the instructional rubric.

Example of an indicator in the NIET Teaching Standards Rubric: Academic Feedback

	<i>Exemplary</i>	<i>Proficient</i>	<i>Unsatisfactory</i>
Academic Feedback	<ul style="list-style-type: none"> • Oral and written feedback is consistently academically focused, frequent, and high-quality. • Feedback is frequently given during guided practice and homework review. • The teacher circulates to prompt student thinking, assess each student’s progress, and provide individual feedback. • Feedback from students is regularly used to monitor and adjust instruction. • The teacher engages students in giving specific and high-quality feedback to one another. 	<ul style="list-style-type: none"> • Oral and written feedback is mostly academically focused, frequent, and mostly high-quality. • Feedback is sometimes given during guided practice and homework review. • The teacher circulates during instructional activities to support engagement and monitor student work. • Feedback from students is sometimes used to monitor and adjust instruction. 	<ul style="list-style-type: none"> • The quality and timeliness of feedback are inconsistent. • Feedback is rarely given during guided practice and homework review. • The teacher circulates during instructional activities but monitors mostly behavior. • Feedback from students is rarely used to monitor or adjust instruction.

Blending Curriculum and Instructional Support: Lesson 3

Professional learning should marry the “what” and the “how” by utilizing the developmental language of a common instructional rubric in the context of specific lessons or components of the curriculum. For instance, in the example above, Parker focused on building the teachers’ skills to provide high-quality academic feedback in the context of specific fourth and fifth grade lessons from the curriculum. Teachers could, therefore, see how to apply their improved instructional skills (“the how”) to their content (“the what”). Similarly, in some states and districts, the use of content-specific “look fors” or questions provides an additional layer of guidance in implementing a new curriculum. These “look fors” include

indicators that help measure whether the teacher is using the new curriculum and how their lessons address grade-level standards. For example, a curriculum “look for” resource might ask: 1) “Is a high-quality text that is at or above grade level expectations being used?” or 2) “Are questions and tasks text-specific, and do they accurately address the analytical thinking required by the grade-level standards?”^{14, 15} These companion resources help to maintain a focus on the specific content being taught in each lesson of the new curriculum and its alignment to standards for student learning. Together with the instructional rubric, this support helps teachers plan and deliver learning for their students.



DeSoto Parish, Louisiana

¹⁴ Achieve the Core. August 2018. “Instructional Practice Guide for ELA/Literature Grades 3-12.”

¹⁵ Lee, L. E., Smith, K. S., & Lancashire, H. 2020. “Guide and checklists for a school leader’s walkthrough during literacy instruction in grades 4–12 (REL 2020–018).” Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast.

4. Anchor coaching and feedback in the curriculum.

Coaching is an essential part of instructional improvement, enabling principals and instructional leaders to work one-on-one with an individual classroom teacher, observe instruction, and provide real-time feedback. When coaching during curriculum implementation, it is essential to provide clear and consistent feedback targeted to where teachers are in their own learning. Simply visiting a classroom to see if the curriculum is being used is not enough. Leaders and coaches must deeply know the curriculum in order to connect their instructional feedback to specific resources and lessons. Support, especially during curriculum implementation, must be differentiated by the teacher, both in terms of subject matter and also intensity and duration.

A high-quality curriculum places new demands on teaching, including the use of more complex texts, scaffolded supports for students, and greater emphasis on differentiating instruction. For example, Louisiana’s ELA curriculum, “Guidebooks,” includes the text for each unit and links to related readings, related standards, and sample research projects.

Each unit includes descriptions of activities, handouts, lesson scripts, and examples of student work, as well as links to resources like assessments and videos. A strong ELA curriculum with this level of support seeks to build students’ background knowledge – which research has shown is crucial to strong reading competency¹⁶ – and to build knowledge across grade levels.

In mathematics, a high-quality curriculum teaches the content at a conceptual level. As one highly rated curriculum provider in math explains, “It’s not enough for students to know the process for solving a problem; they need to understand why that process works. ...This builds students’ knowledge logically and thoroughly to help them achieve deep understanding.”¹⁷ Content is organized in a logical progression across multiple years, enabling teachers to know what students have learned in prior years and what to prepare them for in the next grade level. A high-quality math curriculum offers suggested questions, activities that encourage students to problem-solve, and other teacher resources embedded in each lesson and unit. It also provides resources for parents to support students at home, such as key vocabulary and connections to prior learning. Knowing how to maximize the benefits of these varied resources is a new challenge for many teachers that coaches can address.

¹⁶ Willingham, Daniel T. 2006. “How Knowledge Helps.” American Educator. Washington, D.C.: American Federation of Teachers.

¹⁷ Eureka Math. Retrieved from: www.greatminds.org/math/about-eureka



Chinle Unified School District, Arizona

To meet the demands of a top-rated curriculum and bring all students up to the new expectations for learning, teachers need additional support to understand why certain skills or strategies are being employed, how to best facilitate them, and when to enhance the materials to meet specific student needs. Coaching might include co-planning, diving into the curriculum together, or team teaching and providing feedback. The support must be more intense for those teachers who struggle, especially those who need targeted support to increase their content expertise.

Chinle Unified School District in Arizona used to be among the lowest-performing Native American reservation districts and is now the highest-performing reservation district.

Although they are outperforming similar districts, they still have many academic challenges. In order to meet these challenges, Chinle invested in creating teacher leadership positions (“academic coaches”) in every school and adopted a more demanding curriculum in ELA and math. Academic Coach Melissa Martin explained her coaching role: “Our job as academic coaches is to help teachers work out how to make learning happen, how their students can master each standard, how to stretch their higher-performing students, and how to support those who are struggling. We help them build their knowledge of the content in the curriculum and then work through, step by step, how to help every student to master it, based on their specific needs. The rigor has changed. The way we ask students to think is at a higher level.”

Blending Curriculum and Instructional Support: Lesson 4

To provide this level of support and coaching, schools and districts need trained teacher leaders and a system of school-based professional learning that prioritizes the time and resources to ensure that professional learning translates to the classroom. Teacher leaders and the principal, in particular, must demonstrate through their feedback that they understand and value the curriculum and that using it well is important. No matter the reason a school leader may visit a classroom, it is important to anchor any feedback or support in the curriculum.

Principal French, from Caddo Parish in Louisiana, is intentional about making that connection. “If I’m giving instructional ideas outside of the curriculum, I’m almost working against it,” he said. “I need examples and tips from the curriculum or that connect to the curriculum in an important way that shows how instructional practice and curriculum are braided together. Sometimes it’s just a coaching tip straight from the curriculum. I can support a teacher by noting, ‘Here’s a good idea that came from the curriculum.’ That builds teacher buy-in because I am showing I understand and value the curriculum.”

Anchoring feedback in the curriculum also addresses potential challenges or resistance from teachers. For example, Clarece Johnson, a master teacher at Queensborough Leadership Academy, found, “When you’re told to do the curriculum as

written, it can give teachers a false sense of, ‘Well, I don’t really have to dig into this and understand it.’ When, in fact, they really do.”

Intensive, one-on-one coaching is particularly important in low-performing schools, where teachers will need additional support in helping students who are significantly below grade level. The use of a high-quality curriculum provided to every school relieves instructional leaders of the overwhelming responsibility of designing and supporting multiple curricula or lesson planning on their own and enables them to focus on building content knowledge, improving teacher practice, and analyzing the effect of instructional strategies on student learning.



Caddo Parish, Louisiana

5. Recognize the stages of curriculum implementation and what teachers need to progress to higher stages.

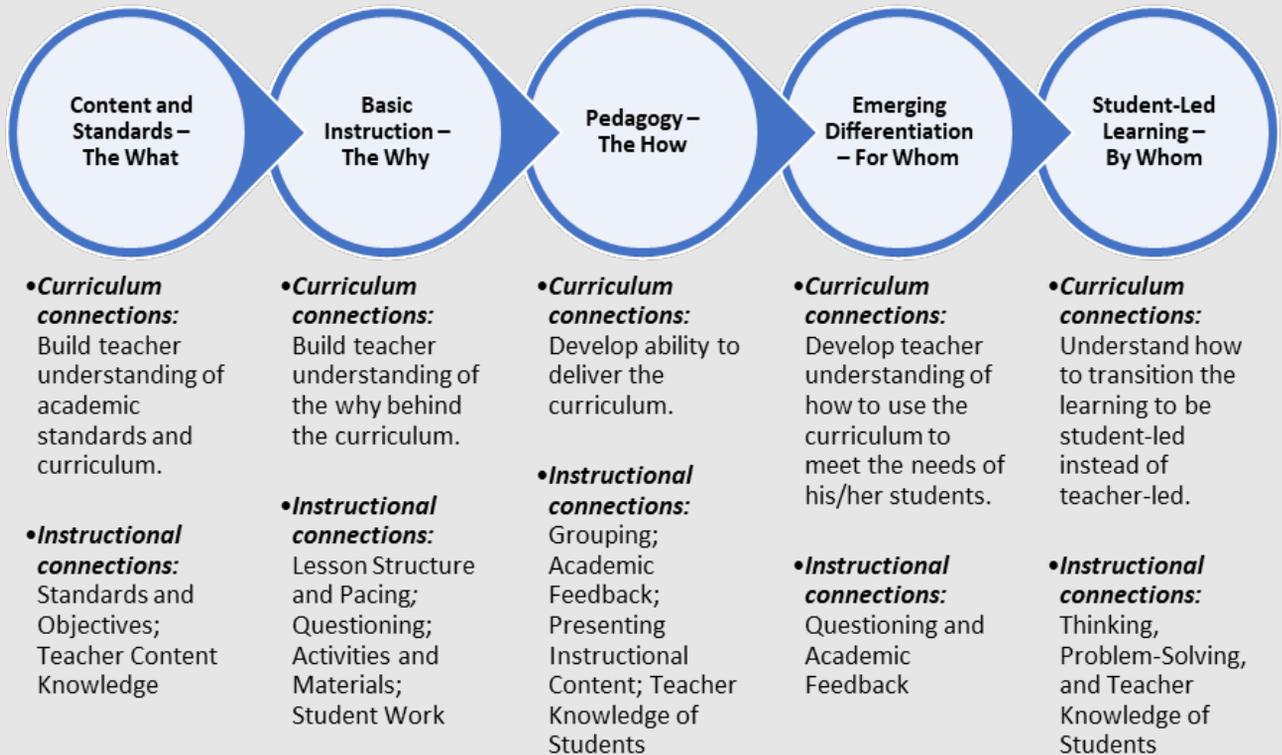
NIET is working with district leaders in Jefferson Parish Schools in Louisiana to develop tools, processes, and training for school leaders to gauge where individual teachers are in the progression of learning on a new, more rigorous curriculum and determine how to best target support for each teacher based on their needs. Using classroom observations, a teacher survey, and follow-up consultations with school leaders, Jefferson's cadre of six district-level instructional coaches, called executive master teachers, are supporting school leadership teams to identify each teacher's level of expertise with the curriculum and design individual support plans.

Their analysis includes both content knowledge and instructional practices in order to pinpoint specific areas for improvement that connect to student learning needs. For example, in a middle school English language arts class, classroom observation and follow-up coaching with the teacher found that student work was not meeting grade-level standards. This particular teacher's pacing was off, and he

had skipped parts of several lessons he thought would not be engaging for his students. His coach spoke with him about why he had skipped certain lessons, what purpose they served, and how he could have covered that material in an engaging way with his students. Together they pulled up the standards and looked at his students' work and where it was falling short. Through this process, the teacher and his coach reviewed why the skills in those lessons were essential for his students to master, adjustments he could make to lesson pacing to cover them, and engagement strategies that worked with his students.

NIET's *Teacher Learning Progression on Curriculum* outlines connections between curriculum and instructional skills at various levels of expertise. Maria Held, Jefferson Parish executive master teacher, explained how it is being used in her school: "We use the curriculum progression alongside the instructional rubric because we want to move teachers in areas of both practices and their knowledge of curriculum. A carefully implemented support plan that addresses a teacher's stage in curriculum learning will help teachers to understand how instructional practices enable them to support students to master grade-level content at the depth of knowledge needed for academic success."

Teacher Learning Progression on Curriculum



Leaders in Rapides Parish in central Louisiana are working to support teachers with specific instructional practices based on where they are in learning the content of the new curriculum. For example, during a classroom observation, the leadership team found that a middle school math teacher was providing strong overall instruction, but she was not effectively differentiating instruction for students that were struggling or providing extensions to the learning for students who were ready for additional challenges. In providing feedback to this teacher, it became clear that she was not accessing supplemental curriculum resources and strategies.

With coaching from the leadership team, she was able to incorporate additional curriculum resources to better differentiate her support to meet individual student needs. For example, she used small group pullouts for those students who were performing above proficiency in order to extend their learning. By providing those students with additional real-world examples and requiring them to represent those examples mathematically, she was able to advance their thinking and problem-solving above grade level.

For her students who had not yet mastered the grade-level content, she used remediation resources provided in the curriculum to anticipate where her students might struggle and what interventions she could plan ahead of time. She grouped these students based on their specific needs and used strategies from the curriculum resources during the lesson to enable them to work on grade-level assignments. With these supports and continued practice, students were able to master grade-level material. This teacher took her practice to a higher level of effectiveness by improving her ability to differentiate instruction for individual students. On the curriculum progression, she was moving toward “emerging differentiation.”

Nikki Snow, master teacher at Alma Redwine Elementary School in Rapides, explained how she is blending support for curriculum and instruction when she coaches teachers: “We have been focusing on how to get our students to lead discussions, to work together collaboratively in groups to complete tasks, and to create a student-led environment. The last stage of the curriculum progression is to have student-led learning, and this fit in perfectly with what we have been trying to achieve. Teachers are not being asked to do anything extra, but they can apply these strategies with the content that they are already teaching in the classroom.” School leaders in Rapides Parish can speak to the impact this approach has made to improving instruction and advancing student learning.

“We are building a stronger path which equips our teachers with the necessary tools for designing and delivering learning opportunities that are continuously differentiated and student-led,” said Alma Redwine Elementary School Principal Dr. LaQuanta Jones. “This higher level of practice requires a deeper understanding of the content and resources in the curriculum and the instructional practices needed to be successful in supporting learning for each individual student.”

As with the instructional rubric, this progression illustrates that teacher instructional practice needs to move toward the exemplary level in order to realize the full potential of high-quality instructional materials. For example, more demanding curricula require teachers to support students to take ownership of their own learning and to engage in thinking and problem-solving with their peers, described in the curriculum progression as “student-led learning.”

In addition to using a learning progression as a coaching tool, it is also useful as an overall guide during the introduction of a new curriculum. Teachers will need time before the school year starts to understand changes that the new curriculum will require in routines, structures, scheduling, grading, and assessments.

With that basic understanding, teachers can focus on how the new content aligns with student learning standards and build their understanding of why the curriculum is structured the way it is and how this supports student learning. At this stage of learning, teachers make connections between the content of the curriculum and instructional practices, such as lesson structure and pacing, questioning, and activities and materials that will support deeper student learning. They increase their understanding of what student work should look like at different levels of proficiency.

With a growing understanding of what needs to be taught and why, teachers build their ability to deliver effective lessons. As described in the example above, this increased expertise enables teachers to better differentiate learning, such as providing scaffolds to students who are not mastering learning objectives to enable them to build the skills and knowledge necessary to achieve grade-level performance expectations. As teachers increase their knowledge and skills using a new curriculum and the supplemental resources it provides, they are more equipped to differentiate instruction so that every student receives support to learn the material presented. In the early stages of implementing a new curriculum, weekly collaborative learning meetings offer the opportunity to support groups of teachers who are focused on building similar skills and knowledge.

“Everything we do in our district is grounded in our model of professional learning that

provides for a culture of collaboration and common language for improving instruction using a high-quality curriculum,” said Duguid from Avondale Elementary School District. “Pedagogy goes hand in hand with curriculum, and with stronger instructional skills, our teachers can more actively engage students in more challenging content.”

At Wildflower Accelerated Academy in Goodyear, Arizona, leaders are identifying issues that individual teachers might be struggling with in the curriculum and how to support teachers to improve during professional learning and through coaching. “We start by asking, ‘What is in the curriculum?’ Then we look at the science behind how students read, for example,” said Dr. Araceli Montoya, principal of Wildflower Accelerated Academy. “Through our professional learning block, we support teachers to become more proficient with the instructional content and how to best teach the material to their students. Within months we saw improvements in classrooms.”

”

Through our professional learning block, we support teachers to become more proficient with the instructional content and how to best teach the material to their students. Within months we saw improvements in classrooms.

—Araceli Montoya, Principal

6. Ensure that districts work closely with schools to plan for, communicate, and implement school-based professional learning that blends support for curriculum and instructional practice.

Districts have the distinct role of creating a vision for equity and high expectations for all students. A new curriculum is a critical tool in advancing that goal, but adopting a new curriculum does not happen in a vacuum. A range of other initiatives continue in each school, and practices, materials, and activities associated with the old curriculum often persist. District leaders play a critical part in communicating what to stop doing, even as they are communicating what to start, and in determining how a new curriculum will be integrated with other initiatives.

Assessment is a particularly important area for district review with a new curriculum. For example, existing interim assessments might not align with the new learning in the curriculum, and this will need to be updated. District instructional staff must understand and be able to explain how shifts in state standards are reflected in the new curriculum, assessments, and expectations for classroom instructional practice. They

need to be able to weave that knowledge into the support they are giving to schools.

Districts also need to consider that schools struggling to reach academic goals, including those serving larger numbers of low-income students and students of color, will need more support using the new curriculum. "This year, we began implementing a new high-quality curriculum that is helping us to build our understanding of what student success needs to look like," Principal Dexter Murphy of Maynard Elementary School in Knox County Schools, Tennessee, said. "As principal, a pivotal part of my role is that of a lead learner, focused on how to better support our instructional coaches, teachers, and students through the lens of curriculum and student work. District support and resources have been really important as we embark on this work."

In addition to creating coherence among different components of instruction, district leaders need to create coherence among the individuals and organizations supporting the schools. With new curriculum comes new service providers who are in and out of classrooms. This can lead to a lot of "noise" and competing programs. Districts can create coherence by purposefully planning and promoting coordination among the variety of service providers operating in schools. They can further build this coherence by breaking down silos and strengthening coordination among district-level leaders who are supporting schools.

School-based Professional Learning Structures

As the new curriculum is introduced, it needs to be clear to schools how it will align with and be delivered through existing instructional improvement systems and supports, or how schools should realign those instructional supports to support the new curriculum. Researcher Heather Hill summarized the need for districts to review and reset expectations and structures for professional learning: “Professional learning time should focus on developing teachers’ expertise with specific curriculum materials. Pivoting to such a focus will be no small feat, especially considering the patchwork of materials (e.g., from the internet or supplemental sources) teachers use, and considering also the lack of well-established protocols and routines for teachers’ study of materials together.”¹⁸

Districts play the lead role in supporting schools to create professional learning structures that enable teachers to increase their instructional skills and knowledge in order to deliver the curriculum and support diverse learners to master standards. “It is important that we support our teachers with professional development, quality instructional coaching, and opportunities to collaborate with their peers to ensure they are informed decision-makers in relation to curriculum implementation and application,” explained Dr. Elizabeth Lackey, early childhood education supervisor in Knox County Schools. “These structures, when

coupled with a high-quality curriculum, provide teachers with the essential tools to meet the needs of their students.”

”

These structures, when coupled with a high-quality curriculum, provide teachers with the essential tools to meet the needs of their students.

—Elizabeth Lackey, Early Childhood Education Supervisor

By creating stronger connections and deeper alignment between district supports and initiatives, the district strengthens the ability of school leaders to take ownership and actively determine how to best achieve district goals in their own school. Keith Burton, chief academic officer in Caddo Parish, described the challenge: “If the district does not clearly articulate how learning on the new curriculum and support for instruction should be tied together, school leaders will tend to separate them, which causes dissonance and competing priorities, even if the work is complementary. The new curriculum can feel like a separate initiative, leading principals to say, ‘I have curriculum here and instructional support over here, what do you want me to focus on?’ Or principals might focus on curriculum during classroom walk-throughs but not make connections to curriculum implementation in teacher evaluations and feedback.”

¹⁸ Hill, Heather and Kathleen Lynch. November 2019. “STEM Professional Development That Works.” Washington, D.C. ARISE.

District leadership is critical in creating a coherent vision for this new approach to professional learning, identifying the resources to make it possible at the school level, clearly communicating how district systems and initiatives support this work, and prioritizing it through ongoing district investments in training and support. Common tools and protocols, funding for teacher leadership positions, and investments in release time for collaborative learning all require strategic use of existing resources to sustain the work.

Focusing on Student-Centered Practices

A high-quality curriculum requires a shift toward more student-centered practices across the system. To achieve this shift, districts need to standardize and

communicate a common understanding of what exemplary student work looks like using the new curriculum. “All of our principals engage in reflective conversations with district leaders multiple times throughout the year,” DeSoto Parish Executive Master Teacher Nicole Bolen said. “These conversations center around student work and how it aligns to the outcomes we expect to see using a high-quality curriculum. Sometimes our focus is on a misalignment with assessments, or on how we are pacing ourselves to reach goals.”

Teacher observations and feedback should reflect this shift from a focus on teacher practice to looking primarily at student work and outcomes that result from those practices.



Goshen Community Schools, Indiana

“We took a whole year and retrained everyone to see through that lens,” said Kathy Noel, director of student learning in DeSoto Parish Schools. “District leaders worked with principals and master teachers to ask: In a classroom where the teacher is highly effective, what evidence should we see in student work?”

To reinforce this change in focus, district leaders required evidence of impact on student learning to be included in feedback during evaluations. This enabled school leaders to communicate the same expectations and focus on student work in their evaluation feedback that they were communicating during walk-throughs or other classroom visits focused on the curriculum.

Ongoing Training and Support for Leaders

Teacher leaders and principals need support and training, in addition to regular monthly opportunities to work together, to improve teaching and learning with the new curriculum. Master Teacher Angela Small – from Digital Arts and Technology Academy at John Adams Middle School in Grand Prairie Independent School District outside Dallas, Texas – explained: “Everything we do at Adams is instructionally driven now. From our experience, the professional learning framework, training, and support system are essential for the master teacher position to have impact.” District leaders support master teachers in multiple ways, including direct coaching in schools and through monthly

opportunities for collaborative learning for teacher leaders and principals. Expectations and supports for principals from their district-level supervisors include a heavy emphasis on the role of the principal as an instructional leader in implementing the curriculum. Principal observations and feedback, both formal and informal, are how expectations for instructional leadership are communicated and reinforced. District-level support that is job-embedded, with district experts working in schools with principals and teacher leaders, helps leaders, coaches, and supervisors collectively understand levels of current practice and specific areas for improvement and growth.

“More and more, I see that there needs to be someone at the district level who understands this work deeply and at multiple levels,” said Faydra Alexander from Algiers Charter in New Orleans. “What does it look like in a classroom for teachers? What does it look like from the perspective of a content area or grade level? How does the principal support teachers, and who supports the principal? What do people at each layer of the system need to be successful?”

District leaders are best positioned to plan and communicate how a high-quality curriculum can support and advance student engagement and academic goals, and align to other district initiatives. When teachers and principals see the potential impact on their students, they are the first to want to unlock these resources.

CONCLUSION

The use of a high-quality curriculum that is closely aligned to state standards is a powerful foundation for improvements in teaching and learning, and it represents an especially important opportunity for low-income students and students of color to have access to challenging, grade-level work. However, there is a significant danger that without necessary supports for teachers, more demanding instructional materials will stay on the shelf or be watered down, particularly for students who struggle to master grade-level material.

Sporadic supports for teachers are simply not enough to realize the full power of a high-quality curriculum. Districts need to invest in high-quality, job-embedded professional learning at the school level to support teachers in raising their instructional practice using the new curriculum. Building the instructional capacity of each school to create professional learning systems requires intentional planning and investment.

Districts first must invest time upfront for educators to learn the curriculum and understand how it aligns to standards, instruction, assessment, and evaluation and

feedback. Districts also play a critical ongoing role in planning for, communicating, and implementing school-based professional learning that blends support for curriculum and instructional practice. Providing teachers with these job-embedded supports requires districts and schools to create time, structures, and formal roles to accomplish this work.

At the school level, two core strategies are essential for successful curriculum implementation: 1) School-based, collaborative learning led by trained leaders that is job-embedded and focused on daily classroom instruction; and 2) Individual teacher coaching and feedback anchored in the curriculum.

These strategies are strengthened by using an instructional rubric and protocols that create clear and consistent feedback to teachers. When done together, these investments in professional learning and coaching strengthen the ability of districts and schools to provide all students with access to strong classroom instruction and deep learning, ensuring that a high-quality curriculum makes an impact on student outcomes.

Recommendation 1: Focus on leaders first.

Action Steps for District Leaders

- Invest time upfront for learning the new curriculum and how it aligns to other core instructional elements (standards, instruction, assessment, and evaluation and feedback).
- Identify any gaps between standards, curriculum, and assessments, both interim and summative.
- Communicate the connections and coherence between the new curriculum and other initiatives.
- Plan for curriculum implementation by creating specific, districtwide professional learning structures and identifying effective partners.
- **Virtual Strategy:** [Guiding questions for planning virtual learning](#) provide a tool for teachers as they consider objectives and the primary content for each lesson and make intentional connections across standards, instruction, and curriculum.

Action Steps for School Leaders

- Create opportunities for the school leadership team (including teacher leaders or instructional support staff) to learn the new curriculum.
- Communicate to teachers how the curriculum connects to other core instructional elements (standards, instruction, assessment, and evaluation and feedback).

Action Steps for Teacher Leaders

- Learn the new curriculum and how it connects to other core instructional elements (standards, instruction, assessments, and evaluation and feedback).
- **Virtual Strategy:** Use a [standards recovery planning template](#) to help teachers identify missed standards, make connections to where they are covered in the curriculum, and create an action plan for integrating those in instruction.

Recommendation 2: Create time, structures, and formal roles for ongoing, collaborative professional learning at the school level.

Action Steps for District Leaders

- Create, fund, and train formal, instructionally focused teacher leadership roles at the school level with the time and authority to provide support for curriculum implementation.
- Develop protocols to support and standardize the work of professional learning teams.

Action Steps for School Leaders

- Create time and structures for weekly, collaborative professional learning team meetings and school leadership team meetings.

- Analyze data, set goals, monitor progress, and adjust plans for curriculum support.
- Support teacher leaders to effectively lead collaborative professional learning.

Action Steps for Teacher Leaders

- Lead collaborative professional learning teams that focus on building teachers' instructional capacity to deliver their curriculum in the classroom.
- Serve on the school leadership team.
- **Virtual Strategy:** Support peers in their online instruction and ensure students are engaged with the content. [Professional learning and coaching for teachers can move online](#), too.

Recommendation 3: Adopt a research-based instructional rubric to guide conversations around teaching and learning with the curriculum.

Action Steps for District Leaders

- Adopt a research-based instructional rubric that creates a common language to describe instructional practice at levels that increase in effectiveness.
- Communicate how instructional practices support curriculum implementation.
- **Virtual Strategy:** Use a [rubric companion tool](#) to show what use of high-quality instruction and materials can look like in a virtual setting.

Action Steps for School Leaders

- Strengthen teachers' implementation of curriculum lessons and units by using an instructional rubric to build their instructional skills.

- Build teacher leader skills in using the instructional rubric to support professional learning.

Action Steps for Teacher Leaders

- Observe and analyze classroom practice and student work to identify areas for improvement in the delivery of the curriculum.
- **Virtual Strategy:** Help teachers plan for how students will demonstrate that they know the content in a virtual environment. This can include [being clear and intentional about success criteria](#), [modeling](#), and providing strong examples.

Recommendation 4: Anchor coaching and feedback in the curriculum.

Action Steps for District Leaders

- Train district leaders to create coherence and consistency in coaching school leaders and teacher leaders.
- Observe, analyze, and support necessary adjustments as curriculum is implemented.

Action Steps for School Leaders

- Observe classrooms to identify challenges with curriculum implementation.
- Use curriculum resources and supports when coaching and providing feedback.
- Build teacher leader skills in providing high-quality coaching and feedback grounded in the curriculum.
- **Virtual Strategy:** Provide a [strong lesson planning template for virtual learning](#) to support teachers as they identify resources students will need.

Action Steps for Teacher Leaders

- Observe classroom lessons to understand how teachers are implementing the curriculum.
- Provide feedback and specific recommendations for improvement that are grounded in the curriculum and student work.
- **Virtual Strategy:** Using a [rubric companion tool for virtual learning](#), look for intentional use of activities, materials, and tools on platforms such as Zoom or Google Classroom to analyze how a teacher uses the curriculum during the lesson.

Recommendation 5: Recognize the stages of curriculum implementation and what teachers need to progress to higher stages.

Action Steps for District Leaders

- Visit classrooms and work with principals and their leadership team members to identify specific challenges teachers are facing in implementing the curriculum with students.
- Ensure that professional learning and coaching for school leadership team members address the specific challenges classroom teachers are facing with curriculum implementation in their school.

Action Steps for School Leaders

- Build expertise in the skills and knowledge needed by each teacher to implement their curriculum well.
- Support professional learning teams to focus on the skills and knowledge that teachers in that team need to grow and develop.

- Provide individual coaching that helps teachers to improve their skills and knowledge using the curriculum.

Action Steps for Teacher Leaders

- Lead weekly professional learning that supports teams of teachers to improve their skills and knowledge in implementing specific units and lessons in the curriculum.
- Help classroom teachers to analyze their instructional practice, reflect on areas for improvement, and make steady improvements in their ability to teach using high-quality instructional materials.
- **Virtual Strategy:** Focus job-embedded professional learning on building the skills necessary to deliver lessons virtually, including modeling how to use high-quality content and observing and providing feedback to teachers on their virtual lessons.

Recommendation 6: Ensure that districts work closely with school leaders to plan for, communicate, and implement school-based professional learning that blends support for curriculum and instructional practice.

Action Steps for District Leaders

- Create professional learning structures and opportunities for leaders at all levels to collaborate on curriculum implementation throughout the year.
- Coordinate district training and support with the school-based work of teacher leaders and school leaders.
- Coordinate the work of different service providers working in schools.
- **Virtual Strategy:** Work closely with school leaders to [plan ongoing and job-embedded professional learning](#).

Action Steps for School Leaders

- Coordinate with district leaders to plan for, communicate, and implement school-based professional learning that blends support for curriculum and instructional practice.

Action Steps for Teacher Leaders

- Engage in opportunities to work with district and school leaders on curriculum implementation.

NIET TEACHING STANDARDS RUBRIC

Based on nationally normed, research-based standards, the *NIET Teaching Standards Rubric* clearly defines effective teaching and student-centered instruction. The rubric provides educators with a common language for observation, feedback, and support, and it fosters collaboration around instructional practices. The vision represented within the rubric maximizes instructional excellence and correlates with student achievement.

NIET’s *Teaching Standards Rubric*, currently used by eight states, brings a comprehensive focus on three key domains: **instruction, designing and planning instruction, and the learning environment**. NIET also has a **professionalism** domain for teacher leaders, available separately.

Instruction	Designing and Planning Instruction	The Learning Environment
<ol style="list-style-type: none"> 1. Standards and Objectives 2. Motivating Students 3. Presenting Instructional Content 4. Lesson Structure and Pacing 5. Activities and Materials 6. Questioning 7. Academic Feedback 8. Grouping Students 9. Teacher Content Knowledge 10. Teacher Knowledge of Students 11. Thinking 12. Problem-Solving 	<ol style="list-style-type: none"> 1. Instructional Plans 2. Student Work 3. Assessment 	<ol style="list-style-type: none"> 1. Expectations 2. Managing Student Behavior 3. Environment 4. Respectful Culture

EXAMPLE LESSONS

In our experience, the most successful lessons blend high-quality curriculum and strong instructional practices. Following are two example lessons, one in mathematics and one in English Language Arts, that model what lessons look like before and after the blending of strong instructional content and practices.

Mathematics: Measurement and Unit Conversion

EXAMPLE LESSON: BEFORE

Using the old math curriculum, fourth grade students learned measurements and how to convert units of measurement to solve problems. The teacher started the lesson by asking, “How many inches are in one foot?” She called on a student who raised her hand and answered, “12 inches.” The teacher then wrote a word problem up on the board:

Fernando went on a 144-inch fishing boat. In feet, how long was his boat? The teacher asked the class, “Can anyone tell me the answer?” No one raised their hand. The teacher turned to the board to write out and solve the problem: 144 divided by 12 equals 12. She explained that 144 inches equal 12 feet, so Fernando’s boat was 12 feet long.

EXAMPLE LESSON: USING HIGH-QUALITY CONTENT AND INSTRUCTION

Using the new Eureka Math curriculum, fourth grade students are learning about units of measurement and how to convert and express measurements to solve problems. The new curriculum is designed to allow students to solve problems using measurement systems and learn how to use and design conversion charts as they move from procedural to conceptual understanding of measurement.

Students start with rulers and yardsticks as they learn how smaller and larger units relate to one another in various measurement systems. Teacher-provided charts help students to convert units of measurement.

The lesson then moves into an activity designed to engage all students in problem-solving, pairing two students with different levels of math ability. The stronger math student will be the first “problem-solver,” and the other student will be the “coach.” The coach will support the problem-solver as they work through a measurement conversion problem, asking questions developed earlier by the whole class about the steps the problem-solver is taking.

Students are actively problem-solving, explaining their thinking, and learning how to ask questions and provide feedback to peers on the math problems and concepts in the lesson.

Mathematics: Measurement and Unit Conversion, Continued

The teacher facilitates this work by modeling expectations at the beginning of the lesson for how students will work together and how they will engage in questioning one another as well as explaining the criteria for successful work. Her lesson planning includes developing supports for students that need help, such as criteria-focused questions, discussion stems that prompt thinking, or visual charts of completed exemplars for pairs that are off track. Planning these coaching questions helps the teacher to avoid just telling students the answer and creates the opportunity for students to truly explain their thinking connected to the learning.



Somerset ISD, Texas

English Language Arts: Central Message of a Text

EXAMPLE LESSON: BEFORE

Before, third grade students were expected to demonstrate understanding of information in grade-appropriate texts using a variety of strategies, such as identifying details and using these strategies to understand the main idea. In this lesson, the teacher used an excerpt from a story entitled *Aunt Lee's Chickens Take a Bath*. The teacher read a portion of the story aloud while students listened. The excerpt described how Aunt Lee's chickens took dust baths outdoors, and how the dust bath helped to

clean tiny bugs off their feathers. The teacher asked the class, "How is a dust bath helpful to chickens?" No one raised their hand, so the teacher asked, "Does a dust bath clean bugs off the chicken's feathers?" One student raised their hand and answered, "Yes." The teacher asked, "How do we know?" No one answered, so the teacher said, "Right here in the text, it says dust baths clean tiny bugs off their feathers." In this lesson, the teacher is doing the thinking and problem-solving, and engaging with the text, while students are mostly listening.

English Language Arts: Central Message of a Text, Continued

EXAMPLE LESSON: USING HIGH-QUALITY CONTENT AND INSTRUCTION

The new ELA curriculum (adapted from LearnZillion) approaches a similar idea, determining the central message, but the focus shifts from isolated identification to determination and explanation. Now students must not only determine the central message but also explain how it is conveyed through key details in the text. The curriculum is designed to support the teacher to plan how students interact with the text and share their ideas in writing and speaking.

The teacher plans this lesson to help students use details in the text to determine the central message of a story and ensure all students in the classroom are engaged in reading, writing, and thinking for the majority of the instructional time. She plans an activity for students to read with a partner in order to support reading fluency.

They open the book and read the first full page independently, then students work with their partner using a graphic organizer to write down details about the characters. The teacher circulates while students work in pairs to ensure students are gathering

relevant evidence about the characters, asks questions to prompt student thinking, and guides students to precise answers as needed. Students move on to another section of the story.

The second part of the lesson focuses on how characters changed over the course of the story. Students have the details they wrote on their graphic organizer about each character in front of them. They are prepared to do the speaking. The teacher asks select students to share details they gathered about a character from the story during the reading. After reviewing these examples, students work with their table group to expand their lists of details on characters at the beginning and end of the story. The class comes back together, and table groups share how a particular character changed from the beginning to the end of the story. The class discusses how these details contribute to and illustrate the central message of the story. In their reading logs, students respond to the following question: *What central message does *The Fantastic Flying Books of Mr. Morris Lessmore* teach about reading books?*

DEFINITIONS

Collaborative professional learning:

Collaborative professional learning engages established teams of teachers meeting weekly under the leadership of a trained teacher or school leader. Teams engage in cycles of learning – based on student needs – that blend support for the development of instructional skills and knowledge using the curriculum or instructional materials in use in teachers’ classrooms. Teacher leaders follow a detailed protocol for planning and facilitating weekly collaborative learning meetings. The protocol focuses the group’s work on solving specific problems of student learning identified by data and structuring meeting time to concentrate on deliberate analysis, learning, practice, and planning using the curriculum.

Core instructional elements: Core instructional elements include the systems and structures impacting instruction: standards, curriculum, instructional practices, assessment, and evaluation and feedback.

Executive master teacher: The executive master teacher is a district-level instructional leadership position that provides coaching, support, and professional learning to teacher leaders and school leaders.

High-quality instructional materials or high-quality curriculum: High-quality instructional materials – also referred to as high-quality curriculum or high-quality curriculum resources – are aligned with state standards

for college and career readiness, incorporate high expectations for student learning, and fit the needs of today’s diverse classrooms and learners.

Instructional framework or rubric: Based on nationally normed, research-based standards, an instructional rubric clearly defines effective teaching and fosters collaboration around a common language and vision that correlates with student achievement. The instructional rubric focuses on key domains: instruction, the learning environment, designing and planning instruction, and professionalism and provides detailed descriptions of indicators within each of these domains. Example indicators in the instructional domain are questioning, thinking and problem-solving, and activities and materials.

Master teacher: Master teachers are teacher leaders who are released from all or most regular classroom teaching duties in order to provide instructional leadership for classroom teachers.

Mentor teacher: Mentor teachers are teacher leaders who maintain regular classroom teaching duties and receive several hours of release time each week to support classroom teachers.

DEFINITIONS

Professional learning system: An effective professional learning system offers opportunities that are on-site, job-embedded, and relevant. Support incorporates research-based strategies to develop collaborative learning teams and instructional coaching, all with the goals of improving instructional skills and ensuring that these activities ultimately deliver positive results for teachers and their students. The impact on educator effectiveness and student achievement is maximized using specific protocols to guide development, delivery, and follow-up. Weekly professional learning groups follow explicit protocols to guide teams through a process. Teacher leaders are given feedback on their ability to design and deliver effective support. Teachers are individually supported in the classroom by expert teacher leaders to hone strategies until they achieve results. As the instructional leaders in the building, principals are given the tools to evaluate and coach both teacher leaders and classroom educators.

School leadership team: The school leadership team includes administrators and teacher leaders and meets weekly to develop and monitor progress toward school goals, plan for and monitor professional learning

and individual coaching based on classroom observations, and coordinate to implement district goals and priorities.

Teacher leader: Teacher leaders take on formal instructional roles in their schools to support classroom teachers and participate in school leadership teams. Teacher leaders are highly effective classroom instructors, have significant responsibility for managing and implementing research-based, high-impact levers for improving instruction; lead collaborative learning teams; conduct classroom observations to provide useful feedback to teachers; and provide individual coaching to classroom teachers.

In order to have the greatest impact, teacher leaders must be selected through a rigorous, competitive selection process; receive training and ongoing support; have a clear understanding of their roles and responsibilities; be integrated into the staffing and leadership structure of the school and district; be provided sufficient, predictable, and dedicated time to fulfill their roles; be compensated for their additional roles; and have the professional authority to carry out their responsibilities.

BIBLIOGRAPHY

- Akiba, M., & Liang, G. (2016). *Effects of teacher professional learning activities on student achievement growth*. *The Journal of Educational Research*, 109 (1), 99-110.
- Achieve (2017, June). *America Achieves: What the Research Says*. Washington, D.C.: Author.
- Boser, U., Chingos, M., & Straus, C. (2015, October). *The Hidden Value of Curriculum Reform: Do States and Districts Receive the Most Bang for Their Curriculum Buck?* Washington, D.C.: Center for American Progress.
- Calvert, L. (2016, April). *The Power of Teacher Agency: Why we must transform professional learning so that it really supports educator learning*. *Journal of Staff Development*, 37(2), 51-56.
- Chiefs for Change. (2017). *Hiding in Plain Sight: Leveraging Curriculum to Improve Student Learning*. Washington, D.C.: Author.
- Chingos, M., & Whitehurst, G. (2012). *Choosing Blindly: Instructional Materials, Teacher Effectiveness, and the Common Core*. Washington, D.C.: Brookings Institution.
- Darling-Hammond, L., Hyler, M., Gardner, M. (2017 July). *Effective Teacher Professional Development*. Washington, D.C.: Learning Policy Institute.
- Davidson, B., & Pimentel, S. (2019, May). *What makes curriculum work: 4 lessons for administrators*. Oxford, OH: Learning Forward.
- Dolphin, S., Richman, S., Choi, J., Steke, A., DeSaw, C., Demers, A., & Poznyak, D. (2019, July). *Evaluation of the Teacher Potential Project*. Washington, D.C.: Mathematica.
- EdReports. (2018, May). *3 Ways to Leverage Professional Learning During Curriculum Adoption*. Durham, NC: Author.
- Educators for Excellence. (2020). *Voices from the Classroom*. New York, NY: Author.
- Eureka Math website accessed 2/16/2020, www.greatminds.org/math/about-eureka.
- Fishman, B., Dede, C., Eisenkraft, A., Frumin, K., Foster, B., Lawrenz, F., Jurist-Levy, A., & McCoy, A. (2018). *Investigating relationships between school context, teacher professional development, teaching practices, and student achievement in response to a nationwide science reform*. *Teaching and Teacher Education*, 72, 107-121
- Gallimore, R., Ermeling, B., Saunders, W., & Goldenberg, C. (2009, May). *Moving the learning of teaching closer to practice: Teacher education implications of school-based inquiry teams*. *The Elementary School Journal*, 109(5), 537-553.

BIBLIOGRAPHY

Hermann, M., Clark, M., James-Burdumy, S., Tuttle, C., Kautz, T., Knechtel, V., Dotter, D., Wulsin, C. S., & Deke, J. (2019, October). *The Effects of a Principal Professional Development Program Focused on Instructional Leadership*. U.S. Department of Education. Washington, D.C.: Mathematica.

Hill, H. & Lynch, K. (2019, November). *STEM Professional Development That Works*. Washington, D.C. ARISE.

Hirsch, S. (2019, June). *Leverage high-quality instructional materials*. Oxford, OH: Learning Forward.

Hirsch, S. (2018, January). *Focus professional learning communities on curriculum*. Oxford, OH: Learning Forward.

Hirsh, S., & Crow, T. (2017). *Becoming a learning team: A guide to a teacher-led cycle of continuous improvement*. Oxford, OH: Learning Forward.

Instruction Partners. (2017). *What does it take to implement a strong curriculum effectively? Part one: What do we know about the experience of schools implementing rigorous curricula?* Nashville, TN: Instruction Partners.

Jackson, C. K. & Makarin, A. (2018). *Can Online Off-the-Shelf Lessons Improve Student Outcomes? Evidence from a Field Experiment*. American Economic Journal: Economic Policy, 10(3), 226-254.

Jackson, C. K. & Makarin, A. (2016). *Simplifying Teaching: A Field Experiment with Online Off-the-Shelf Lessons*. National Bureau of Economic Statistics, Working Paper No. 22398.

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). *Beyond PD: Teacher Professional Learning in High-Performing Systems*. Washington, D.C.: National Center on Education and the Economy.

Kane, T. and Blazer, D. (2019, March). *Learning by the Book*. Cambridge, MA: Center for Education Policy Research, Harvard University.

Kaufman, J. H., Thompson, L. E., & Opfer, V. D. (2016). *Creating a Coherent System to Support Instruction Aligned with Stated Standards: Promising Practices of the Louisiana Department of Education*. Santa Monica, CA: RAND Corporation.

Korthagen, F. (2017) *Inconvenient truths about teacher learning: Towards professional development 3.0*. Teachers and Teaching: Theory and Practice, 23 (4), 387-405.

BIBLIOGRAPHY

Learning Forward. (2018). *High-quality curricula and team-based professional learning: A perfect partnership for equity*. Oxford, OH: Learning Forward

Learning Forward. (2014, January). *More of This and Less of That: How Do You Score?* Education Week, retrieved from https://blogs.edweek.org/edweek/learning_forwards_pd_watch/2014/01/more_of_this_and_less_of_that_how_will_you_score.html.

Miller, A. M., & Partelow, L. (2019, September). *Successful Implementation of High-Quality Instructional Materials: 5 Case Studies*. Washington, D.C.: Center for American Progress.

National Institute for Excellence in Teaching. (2020, February). *NIET research summary winter 2020: Examining the evidence and impact of NIET's initiatives*. Santa Monica, CA: Author.

National Institute for Excellence in Teaching (2019). *Delivering High-Quality Curricula: What Educators Need to Know*. Santa Monica, CA: Author.

National Institute for Excellence in Teaching. (2019, September) *LA BOLD: Building the Capacity of Teachers and Leaders*. Santa Monica, CA: Author.

National Institute for Excellence in Teaching. (2018, December). *Curriculum or Pedagogy? For Teachers, You Must Support Both*. Santa Monica, CA: Author.

National Institute for Excellence in Teaching (2012). *Beyond Job-Embedded: Ensuring That Good Professional Development Gets Results*. Santa Monica, CA: Author.

Park, J. P., Lee, I. H., & Cooc, N. (2019). *The Role of School-Level Mechanisms: How Principal Support, Professional Learning Communities, Collective Responsibility, and Group-Level Teacher Expectations Affect Student Achievement*. *Educational Administration Quarterly*, 55(5) 742-780.

Petrelli, M. (2020). *Stay the Course on National Standards*. *Education Next*. 20(2).

Polikoff, M., & Northern, A. (December, 2019). *The Supplemental Curriculum Bazaar*. *Education Next*.

Polly, D., Wang, C., Lambert, R., Martin, C., McGee, J. R., Pugalee, D., & Lehew, A. (2017). *Supporting Kindergarten Teachers' Mathematics Instruction and Student Achievement Through a Curriculum-Based Professional Development Program*. *Early Childhood Education Journal*, 45, 121-131

Pondiscio, R. (2020, January). *Digging in the dirt for quality curriculum*. Washington, D.C. Fordham Institute.

BIBLIOGRAPHY

Pondiscio, R. (2019, November). *Curriculum advocates: Prepare for a long, hard struggle*. Washington, D.C.: Fordham Institute.

Pondiscio, R. (2017). *Louisiana Threads the Needle on Ed Reform*. Education Next. 17(4).

Santelises, S. (2019, November). *Leadership and Equity: Addressing Educational Redlining*. Philadelphia, PA: researchED. Retrieved from:
https://www.youtube.com/watch?v=ZuM_c8HMsx8

Steiner, D. (2019, November). *Staying on the shelf: Why rigorous new curricula aren't being used*. Washington, D.C.: Fordham Institute.

Steiner, D. (2017, March). *Curriculum Research: What We Know and Where We Need to Go*. Washington, D.C.: StandardsWork.

Steiner D., Berner A., & Hopkins, J., (2017, August). *Hiding in plain sight: Leveraging curriculum to improve student learning*. Washington, D.C.: Chiefs for Change.

Tennessee Department of Education (2019). *Tennessee Educator Survey*. Retrieved from:
https://www.tn.gov/content/dam/tn/education/data/2019-survey/Lessons_District_Leaders_Infographic.pdf

TNTP. (2015). *The Mirage: Confronting the hard truth about our quest for teacher development*. Brooklyn, NY: TNTP

TNTP. (2017). *The Opportunity Myth: What students can show us about how school is letting them down – and how they can fix it*. Brooklyn, NY: TNTP.

Wiener, R. & Pimentel, S. (2017). *Practice What You Teach: Connecting Curriculum & Professional Learning in Schools*. Washington, D.C.: The Aspen Institute.

Willingham, D.T. (2006, Spring). *How Knowledge Helps*. American Educator. Washington, D.C. American Federation of Teachers.



NIET | NATIONAL INSTITUTE FOR
EXCELLENCE IN TEACHING

www.niet.org | [@NIETteach](https://twitter.com/NIETteach)