Bridging the Divide: Connecting Word Recognition and Language Comprehension in Early Literacy

Learning brief

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Districts across the country are investing in improving literacy instruction to advance students' reading outcomes. Literacy development is inherently complex, as it requires simultaneous growth in word recognition and language comprehension. These demands intensify across the grades, particularly in second and third grade, as students are increasingly expected to make meaning from text.

Recognizing the challenge of improving literacy instruction, Charles and Lynn Schusterman Family Philanthropies has been supporting four urban districts with such efforts through its School System Partnerships. These districts have demonstrated a deep commitment to improving literacy outcomes: They established clear instructional visions, aligned priorities across central office teams, adopted instructional materials, and invested in sustained, literacy-focused professional learning for teachers. These efforts have helped the districts establish strong foundations for literacy instruction across their schools.

Yet moving beyond this foundation to developing proficient readers who can integrate accurate word reading and language comprehension remains a challenging task. This task is complicated by approaches that have separated the teaching of word recognition and language comprehension. Based in early reading theory that distinguished these skills as separate strands of literacy development (Gough & Tunmer, 1986; Scarborough, 2001), districts have adopted distinct curricula for each, implemented separate instructional blocks to account for the different timing and sequencing requirements, and provided different professional development supports.

While these structures have helped districts build more consistent instruction in each area, they can also make it more difficult for students to experience reading as a connected process. Students may not always have opportunities to connect what they are learning about decoding to the meaning of what they read. When instruction does not consistently support these connections, some students may struggle to fully access and engage with increasingly complex texts. More recent research addresses this issue by adding the component of *bridging processes*, or connections between word recognition and language comprehension, to reading theory (Duke & Cartwright, 2021).

This brief focuses on how reading foundational skills instruction in K–2 classrooms can more intentionally connect word recognition and language comprehension through two particular bridging processes—reading fluency and vocabulary development (Duke & Cartwright, 2021). Findings are based on a study of literacy instruction and supports in four urban districts that use core foundational skills curriculum including Amplify Core Knowledge Language Arts (CKLA) Skills, University of Florida Literacy Institute (UFLI) Foundations, and Wilson Fundations.

Inside this brief

Study findings show that teachers in these districts were consistently using the foundational skills curriculum; their lesson purposes supported foundational skills instruction; and they were providing clear, explicit instruction—all necessary components of strong foundational skills instruction. However, the lessons rarely included substantial opportunities to build reading fluency or vocabulary development; in only one-fifth of lessons did students have the opportunity to apply their foundational skills knowledge beyond single words to phrases, sentences, or paragraphs, and in over half of observed lessons, word meaning was addressed once or not at all. In other words, the bridging processes of reading fluency and vocabulary development were not central to foundational skills instruction.

In this brief, we describe in greater detail what we learned about the instructional strengths and gaps related to bridging processes and share practical steps districts can take to more intentionally connect word recognition and language comprehension in foundational skills instruction.

About School System Partnerships

The Charles and Lynn Schusterman Family Philanthropies invests in School System Partnerships to strengthen K–8 literacy across urban school systems. Schusterman supports efforts to help school systems build the vision and forge essential partnerships to improve the conditions that can significantly improve K–8 literacy results, including implementing instructional materials and aligned professional learning, building literacy capacity across all educator levels, and increasing community engagement. The theory of action undergirding these efforts proposes that improving district and school conditions, deepening implementation of instructional materials, and aligning professional learning opportunities will result in higher quality instructional practices and improved student outcomes.

Studying School System Partnerships

In 2024, Schusterman commissioned SRI Education to conduct an independent study of districts supported by the foundation and committed to this theory of action.

In 2024–25, SRI researchers examined literacy instruction in K–5 classrooms and teachers' experiences with instructional materials, professional learning, and school and district conditions. In each district, SRI researchers (1) observed the literacy blocks of K–5 classrooms; (2) surveyed K–5 teachers; (3) observed professional learning community meetings across grade levels; (4) interviewed K–5 teachers, instructional coaches, and principals, as well as district staff; and (5) examined student literacy outcome data.

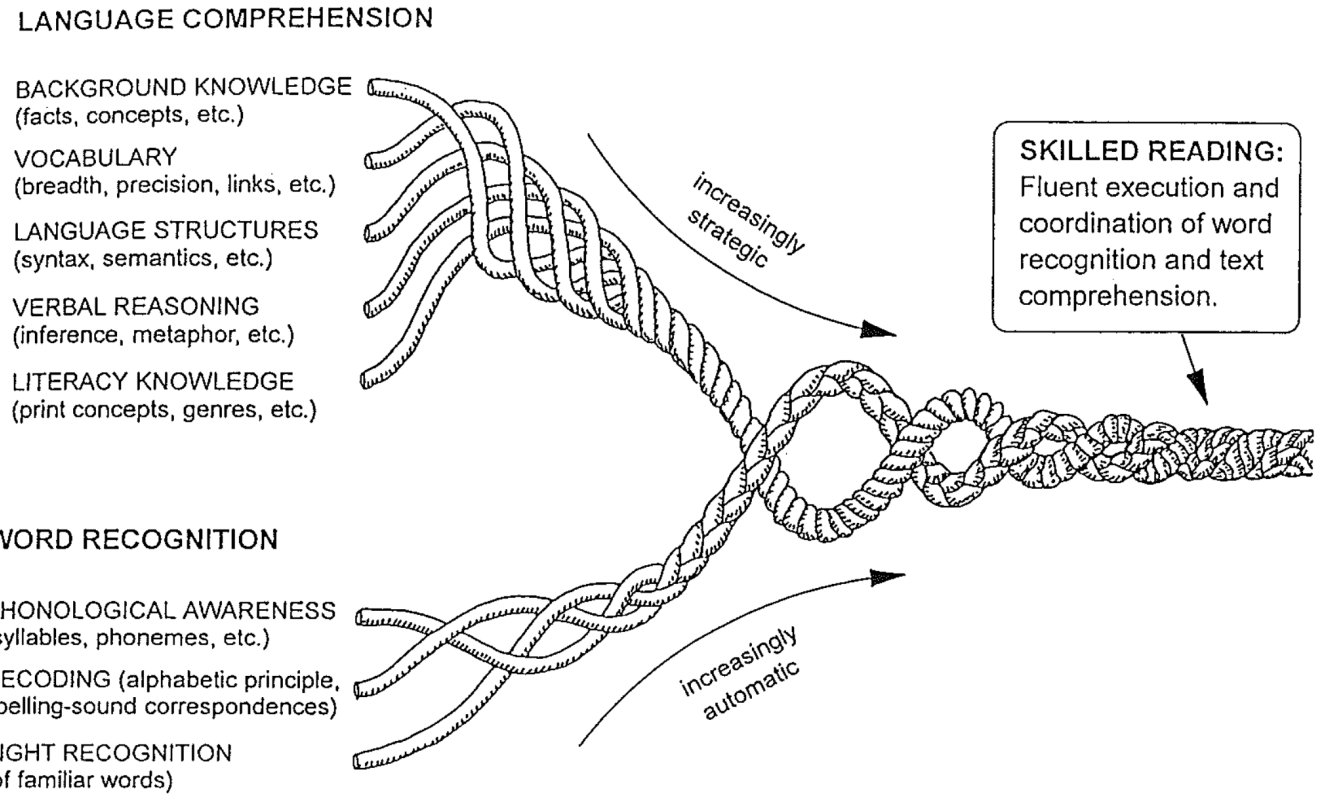
Sharing learnings

This brief is part of a broader set of learning briefs coming out of SRI's study. The series examines how these districts are advancing literacy systems towards their ultimate goal of helping students make meaning from increasingly complex texts. A summary brief presents overall findings from the first year of the study. A companion brief explores the strengths and opportunities for comprehension instruction. Forthcoming briefs will examine topics such as supports for multilingual learners and knowledge-rich curriculum. Together, these briefs highlight how school systems that have built strong foundations in literacy are now working to address more complex challenges to ensure all students become skilled, confident readers.

What are bridging processes and why do they matter?

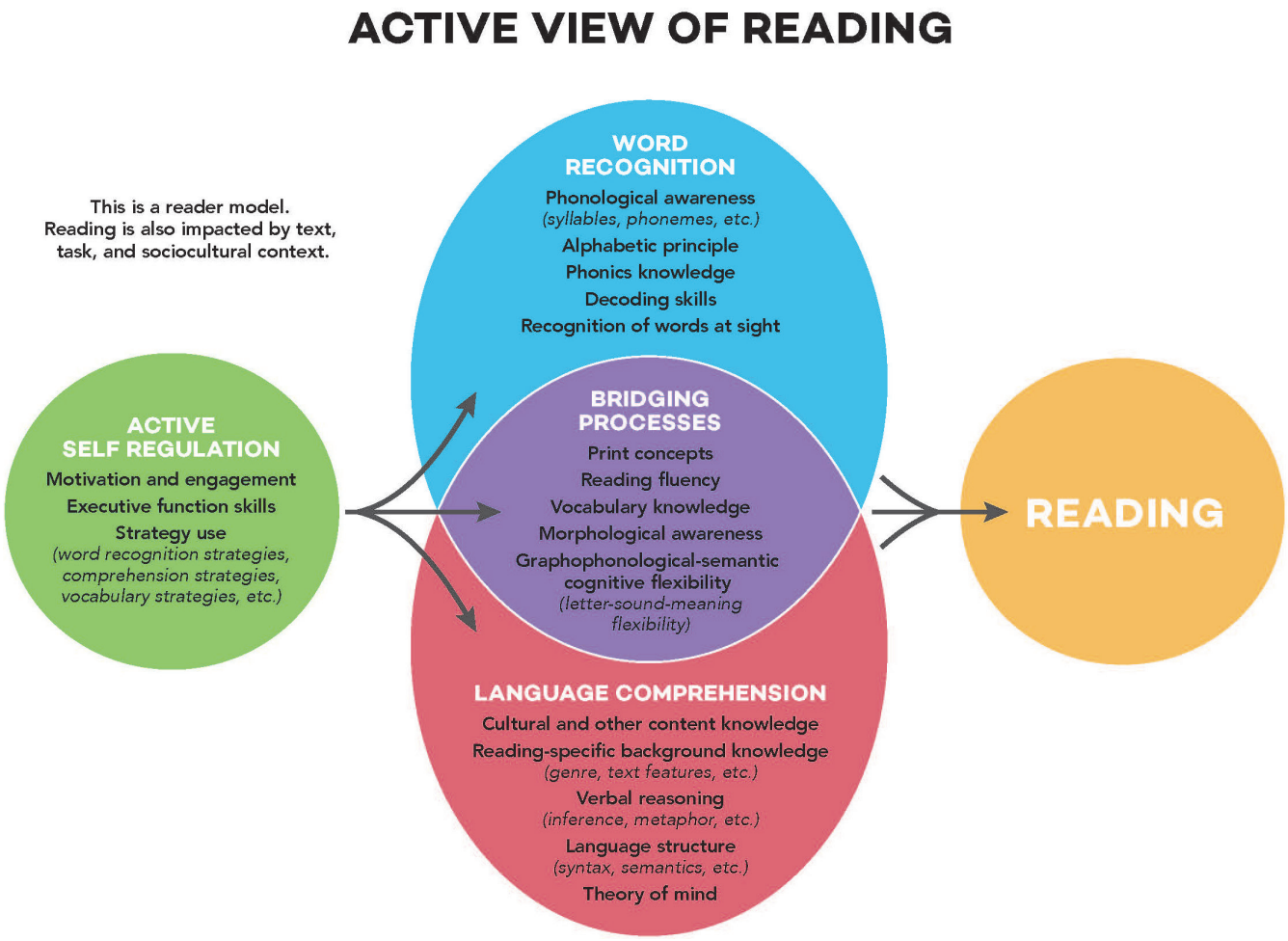
In a pivotal update of the Simple View of Reading (Gough & Tunmer, 1986), Scarborough (2001) integrated decades of research on decoding and language comprehension into a heuristic called the Reading Rope model (see Exhibit 1). This model, which has shaped how many districts and states approach literacy instruction, emphasizes that early literacy depends on both word recognition and language comprehension and represents these skills as distinct strands of a rope that must weave together for skilled reading to develop. However, the model does not provide detail about the relationship of these strands—how these components interact—during the act of reading.

Exhibit 1. The Reading Rope Model (Scarborough, 2001)



Duke and Cartwright's Active View of Reading (2021) offers an updated model that conceptualizes these connections as bridging processes (see Exhibit 2). In this model, bridging processes are the mechanisms that connect word recognition and language comprehension and operate through the overlap of the two. These processes—including print concepts, morphological awareness, vocabulary knowledge, reading fluency, and others—help explain reading development in ways that extend beyond earlier conceptual models and build on updated research. Duke and Cartwright (2021) identify them as potential sources of reading difficulty that are not fully captured when word recognition and language comprehension are considered separately.

Exhibit 2. The Active View of Reading (Duke & Cartwright, 2021) with the Bridging Processes



For example, some children demonstrate age-appropriate decoding and oral language skills yet still struggle to fully comprehend the meaning of grade-level text. In such cases, difficulty may not lie solely in either strand alone, but in the processes that connect them. Importantly, the bridging processes are instructionally malleable; that is, they can be strengthened through teaching (Burns et al., 2023). In this brief, we focus on the bridging processes of vocabulary knowledge and reading fluency.[1]

[1] While the other bridging processes are equally important, we do not focus on them here because they are less salient for grades K-2 (e.g., morphological awareness) or not captured by the TERI:FS (e.g., print concepts, graphophonological-semantic [letter-sound-meaning] cognitive flexibility).

Examples of bridging processes

Vocabulary knowledge refers to understanding the literal and implied meanings of words and phrases (Nagy & Herman, 2014). A foundational skills lesson that includes the bridging process of vocabulary knowledge might include sharing quick definitions of words with the targeted phonics pattern. For example, in reviewing when to use *-ai* and *-ay* vowel teams, a first-grade teacher might ask students to write the word *drain* on their whiteboards and tell them that a drain is a pipe where water can leave a sink. Then she might have children turn and tell their partner a sentence with the word *drain*. They might say, "A drain is the place where the water goes down," or "My bathtub has a drain." Then the lesson could continue with the children underlining the targeted phonics pattern of *–ai* in the middle of the word.

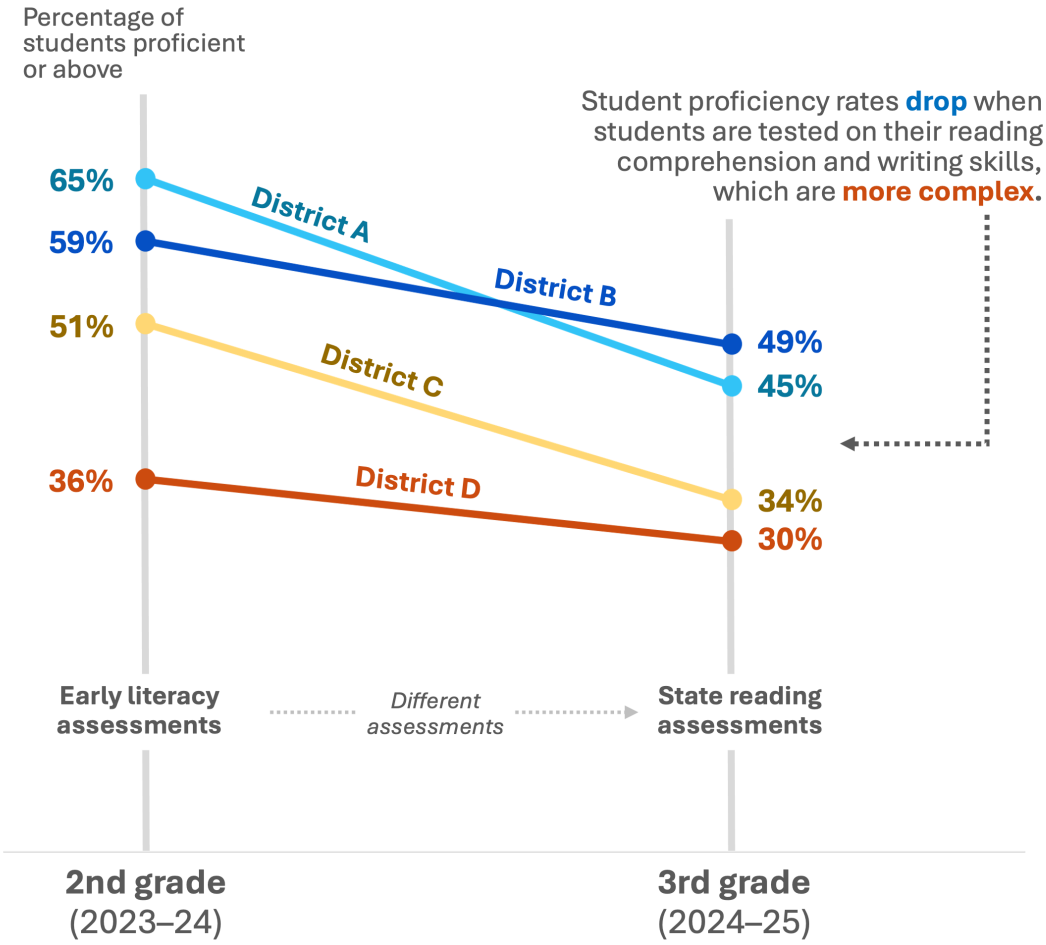
Reading fluency refers to the accuracy, automaticity, and prosody with which a person reads connected text (Kuhn & Stahl, 2003). A foundational skills lesson that includes an opportunity to build reading fluency through connected text might involve reading sentences that include words with the targeted phonics pattern. For example, continuing the lesson above, the teacher might put this sentence on the board: "We will wait at the main gate today." Students might read the sentence all together, whisper it into their palm, or read it in a spooky voice for repeated practice, and then be called up to underline the *–ai* and *–ay* vowel teams on the board. In this way, students have an opportunity to apply the targeted phonics pattern to connected text and build their reading fluency.

Why bridging processes matter

The study districts provide a strong case for why it is critical to help students develop bridging processes such as vocabulary knowledge and reading fluency. Looking back over the past three years (i.e., from 2022–23 to 2023–24 to 2024–25), for the most part, across the four districts the percentage of students reaching proficiency on third grade tests has increased over time. However, looking at the outcomes of a cohort of students as they progress through the grades (e.g., students who were in second grade in 2023–24 and third grade in 2024–25), a consistent pattern emerges: the percentage of students meeting reading proficiency benchmarks, as measured by early literacy assessments in second grade and state reading assessments in third grade, notably drop across all districts (see Exhibit 3). Importantly, these findings mirror national trends: Recent research relying on early literacy assessments indicates that 56% of K–2 students nationally are "on track" for learning to read (Amplify, 2025), but only 31% of fourth graders performed at or above the proficient level on the 2024 NAEP reading assessment, a test that requires students to comprehend with greater depth (National Center for Education Statistics, 2025). In other words,

even students who are meeting proficiency benchmarks based on early literacy assessments are not well prepared to comprehend what they are expected to be able to read by third grade (see text box for more information about the literacy assessments). Prior research suggests that these gaps may reflect a lack of alignment between early literacy assessments and state literacy assessments (Koon et al., 2020).

Exhibit 3. Change in the Percentage of Students Reaching Proficiency as They Progress from Kindergarten Through Third Grade



Note. *Three of the four districts used the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) to assess early literacy; the fourth district used the Phonological Awareness Literacy Screening (PALS) in 2021–22 through 2023–24 and the Virginia Language & Literacy Screening System (VALLSS) in 2024–25. In this analysis, K–2 students are identified as "proficient" if their DIBELS performance category was At or Above benchmark or Low or Moderate risk on the PALS/VALLS.*

Measuring Student Literacy Outcomes

To measure student literacy outcomes, districts use early literacy measures in grades K–2 and state literacy assessments in grades 3 and above. For early literacy measures in K–2, three districts in the study use Dynamic Indicators of Basic Early Literacy Skills (DIBELS; University of Oregon, 2018) and one uses the Virginia Language & Literacy Screening System (VALLS; Virginia Literacy Partnerships, 2024). Both early literacy assessments measure phonemic awareness (e.g., phoneme segmentation fluency), alphabet knowledge, phonics (e.g., nonsense word fluency, word reading fluency), and oral reading fluency. Starting in second grade, DIBELS adds a basic reading comprehension subtest. Across all grades, the VALLS additionally includes subtests for encoding, processing speed, and language comprehension (e.g., aural passage comprehension, nonsense sentences, and vocabulary).

In third grade, students begin taking their state reading assessments annually. The tests vary state by state but generally include comprehension of reading passages across genres of fiction, literary nonfiction, poetry, informational text, and persuasive text. They also may include writing, revising, spelling, vocabulary, multimodal literacies, and language usage tasks. State reading assessments require students to use their literacy skills across word recognition, bridging processes, and language comprehension.

These test scores underscore troubling trends in reading proficiency. Reading expectations become more complex as students progress through the grades, and once students are more thoroughly assessed on reading comprehension in third grade, only 30-49% of students in the focal districts were considered proficient. Bridging processes that develop students' vocabulary and reading fluency are one pathway to improving students' comprehension (Burns et al., 2023). The findings that follow explore how frequently these bridging opportunities were present in observed foundational skills lessons and point to implications for the organizational structures, professional learning, and teacher practices that support foundational skills literacy instruction.

What did we learn about bridging processes in foundational skills instruction?

The SRI research team examined foundational skills instruction in 29 schools across the four study districts during the 2024–25 school year. We used the Tools for Equitable Reading Instruction: Foundational Skills (TERI:FS) protocol to observe foundational skills instruction in 112 K–2 classrooms.[2] The TERI:FS, which can be used to observe instruction in English or Spanish, captures multiple dimensions of foundational skills instruction, with a focus on both word recognition and bridging processes. The majority of our team's 112 observations were in English medium classrooms; however, 14 observations occurred in dual language classrooms where students were engaged in Spanish language foundational skills instruction. While Spanish and English have some differences in phonemes and phonics patterns, the basic processes in the Active View of Reading (Duke & Cartwright, 2021) are similar. In particular, vocabulary and reading fluency are important constructs across both English and Spanish as students learn to read in either language.

[2] Observers double scored 20% of the classroom observations and were reliable 86% of the time. Observers are considered reliable if they score within one point of each other on the dimension score.

Two dimensions of the TERI:FS are relevant to this brief. The language development dimension (within the supportive learning opportunities domain) captures instructional moves that build **vocabulary knowledge**, such as providing definitions or meaningful context for decoded words. The text application dimension (within the lesson format domain) measures opportunities for students to apply phonics skills in connected text—an important means of building **reading fluency**. In this way, the TERI:FS allows us to examine how observed foundational skills instruction may or may not provide opportunities to strengthen bridging processes.

About the Tools for Equitable Reading Instruction: Foundational Skills (TERI:FS)

The TERI:FS captures the quality, frequency, and patterns of practice for foundational literacy skills instruction and can be used with different foundational skills curricula. TERI observers are trained to evaluate a 30-minute foundational skills lesson across four domains, including scoring dimensions related to:

- Lesson format (e.g., purpose and alignment, practice intensity, text application, and instructional focus)
- Explicit foundational skills instruction (e.g., explicit instruction, instructive feedback, and clarity and correctness of content)
- Supportive learning opportunities (e.g., peer learning, reasoning with skills, language development)
- Dispositions and stances (e.g., humanizing stance, engagement and motivation)

In addition to classroom observations and examining outcome data, we surveyed 279 teachers about their use of district-adopted foundational skills curriculum. The data reveal both promising patterns of curriculum implementation and instructional practice, as well as areas where more intentional attention to bridging processes may be warranted. Because of the breadth and rigor of this study and the popularity of the district-adopted foundational skills curricula, the findings are applicable to districts across the country. Moreover, these findings inform concrete action steps that educators can take to strengthen connections between word recognition and language comprehension in foundational skills instruction.

Finding 1: Foundational skills lessons consistently included clear purpose and explicit instruction

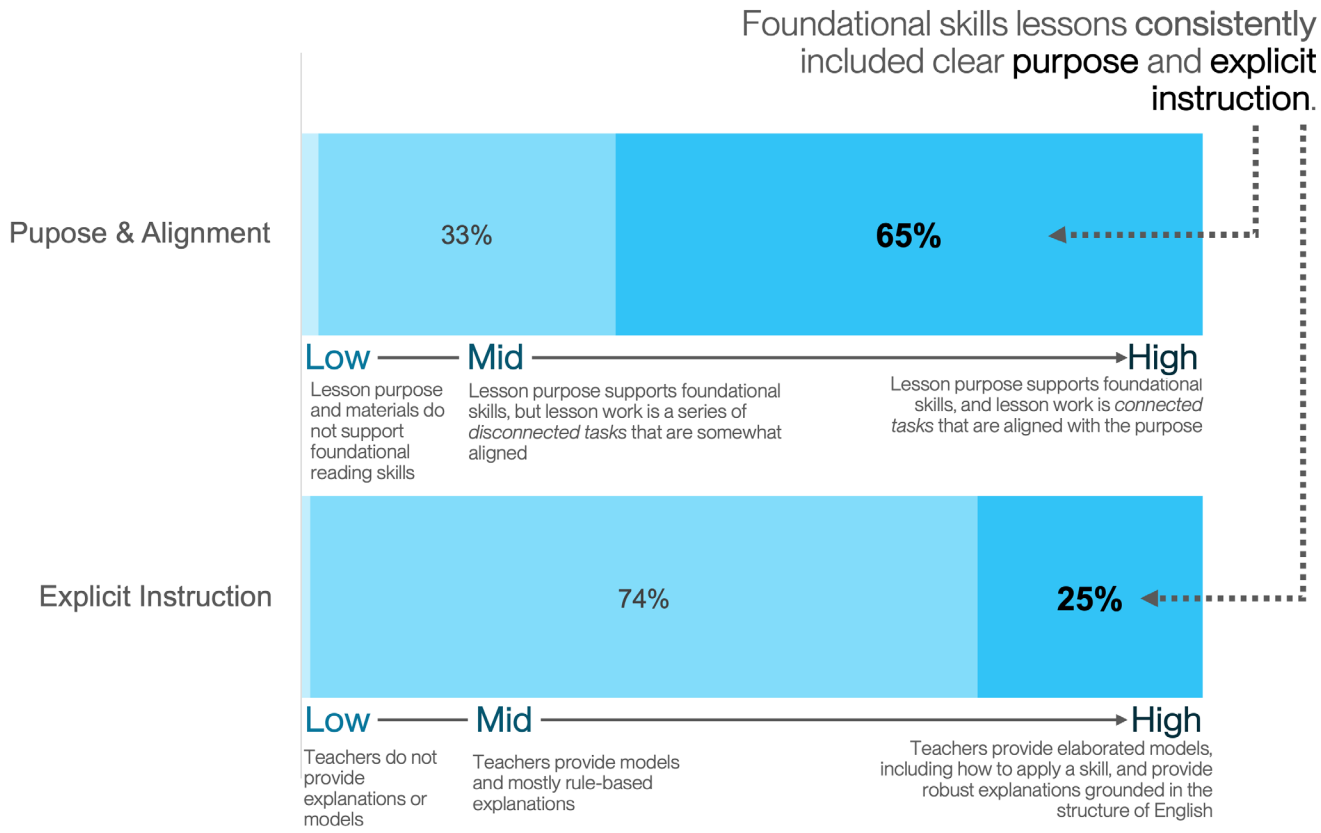
Observations confirmed that most teachers were consistently implementing their district-adopted foundational skills curriculum. On the survey, most teachers—from 88% to 94% across the four districts—reported almost daily use of their primary foundational skills curriculum. During classroom observations, which all featured each district's adopted foundational skills curriculum by request, we saw firsthand how implementing the curriculum built a high floor of consistent foundational skills instruction in the study districts.

In nearly all lessons, the *lesson purpose* and *alignment* supported foundational skills, and the work of the lesson was somewhat or closely aligned with the purpose (see Exhibit 4). In nearly two-thirds of lessons (65%), connected tasks aligned with a specific purpose. For example, a lesson sequence could include students reviewing a subset of letter-sound correspondences, then orally segmenting and blending only words with

/sh/, writing those words with /sh/, and sorting words with /sh/ and /ch/. An additional subset of lessons (33%) included tasks that were somewhat, but not fully, aligned with the lesson purpose. Such a lesson might include partially disconnected tasks like students reviewing all letter/sound correspondences for an extended time, practicing high-frequency words, orally deleting phonemes from words with a variety of phonics patterns, and then listening to a story with words with /sh/ and writing words with /sh/ (Cohen et al., 2022). In 2% of observed lessons, the lesson purpose and materials did not support evidence-based foundational skills at all.

In addition, teachers regularly provided students with explicit instruction in foundational skills during observed lessons (see Exhibit 4). In some especially strong lessons (25%), teachers provided models with explicit emphasis on how to apply the structure of English (or Spanish) and explanations that showed students how to do the same. For example, "B says /b/ like at the beginning of *ball*, *bike*, or *bush*. When I hear /b/ at the beginning of the word, I spell it with the letter B" (Cohen et al., 2022). In most observed lessons (74%), teachers still modeled and explained a specific skill but did not provide elaboration on how to apply that skill. For example, "I'm going to write the word *ball*. Ball.../b/...B [writes B]. The next part is /all/ - that chunk is A-L-L" (Cohen et al., 2022). Although there was room for growth in lesson alignment and richer explanations, these data verify that districts' foundational skills curriculum implementation laid a strong foundation in almost every lesson that can enable more bridging processes to happen.

Exhibit 4. Strengths in Foundational Skills Instruction Across All Districts



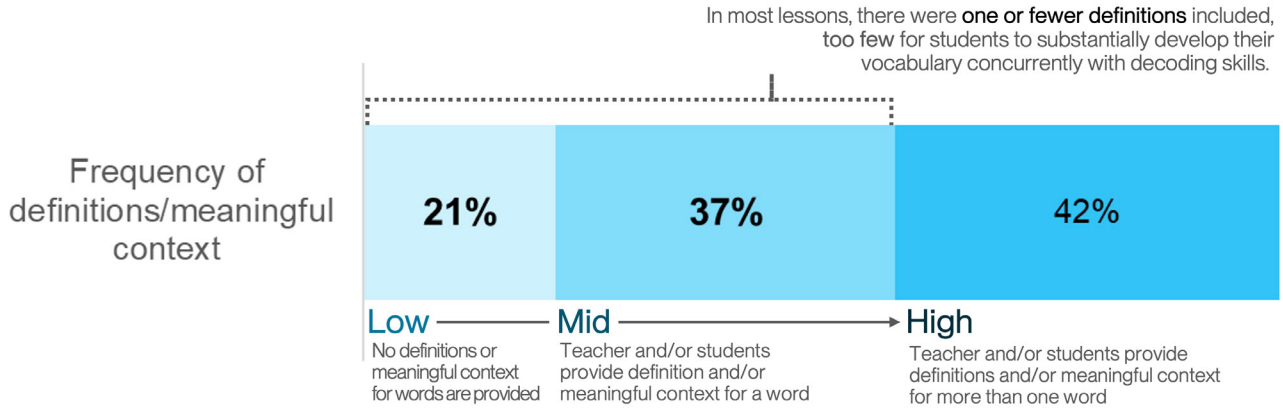
Source. *TERI:FS observations, 2024–25, n = 112*

Finding 2: Many lessons missed opportunities to embed vocabulary development within foundational skills instruction

The TERI:FS language development dimension is framed around this guiding question: *Does the teacher facilitate students' language development as a part of foundational skills instruction?* Importantly, this dimension does not encourage derailing phonics lessons into long vocabulary lessons but rather underscores the relationship between foundational skills and language development and measures the degree to which focusing on word meaning is succinctly embedded within foundational skills instruction.

We examined the *frequency* with which teachers provided definitions and/or meaningful context for focal words (an indicator within the TERI:FS language development dimension). In 42% of lessons, teachers provided definition/meaningful contexts two or more times, in 37% just once, and 21% of lessons no times (see Exhibit 5). In other words, in more than half of observed lessons, *word meaning was mentioned just once or not at all*. In this case, even a high rating on this dimension of the TERI:FS does not set a high bar.

Exhibit 5. Vocabulary Development Across All Districts



Source. *TERI:FS observations, Spring 2025, n = 112*

The limited frequency with which definitions/meaningful contexts were shared is concerning for all students, who need to hear and learn word meanings as they learn to decode (Austin & Boucher, 2022), and especially for emergent multilingual students (Morita-Mullaney et al., 2023), who will likely have fewer English words in their spoken vocabulary. While young emergent multilinguals may acquire basic English decoding skills without advanced English proficiency (Baker, 2008), those who receive foundational skills instruction infused with vocabulary development are far more likely to reach proficiency on early literacy assessments (Ventriglia-Navarrette & Moylan, 2025). Furthermore, research indicates that language development instruction is key for later outcomes in comprehension, and language development must be built over time using embedded vocabulary instruction and exposure (Baker et al. 2016; Wyse & Bradbury 2022).

While young emergent multilinguals may acquire basic English decoding skills without advanced English proficiency (Baker, 2008), those who receive foundational skills instruction infused with vocabulary development are far more likely to reach proficiency on early literacy assessments (Ventriglia-Navarrette & Moylan, 2025)

This research aligns with how the Active View of Reading defines the role of vocabulary as a bridging process linking children's understanding of the sounds, spellings, and meanings of words.[3]

Put another way, building phonics skills without simultaneously building vocabulary is like building a house on a foundation of sand—a foundation which will not support the work of reading comprehension. Exhibit 6 provides two examples—one from a Spanish phonics lesson and one from an English phonics lesson—of how observed teachers embedded vocabulary knowledge into a phonics lesson.

Exhibit 6. Examples of Embedding Definitions/Meaningful Contexts Within Foundational Skills Instruction, by Purpose

Purpose	Example
Remind students to connect sounds and spellings to meaning as they read	Kindergarten students read a text called "Como Sabe Beli." The text was projected on the whiteboard, and each child had a copy. The children read each word syllable by syllable, very slowly. "*El es Be/li. Be/li to/ma el ba/te. Be/li no le da a la bo/la.*" [He is Beli. Beli takes the bat. Beli misses the ball.] The teacher, sensing that her students were losing the meaning due to reading slowly, asked, "*¿Qué es una bola?*" [What is a ball?] "*¡Es una bola pequena!*" [It's a little ball!] replied one student. The teacher underlined the two syllables on the board (*–bo –la*) and modeled saying them with increasing fluidity (*–bo….–la….–bo/–la…. bola….la bola*). Then the students reread the sentence. This was an instance of a student providing a meaningful context for a word. It was not a clear definition, but it served the purpose to remind students, who mostly spoke Spanish fluently, that they were not just reading a string of nonsense syllables. It prompted students to think about the syllables as words and consider the meaning of the words as they read. *–Bo/–la* (two nonsense syllables) morphed into *la bola*, a ball that Beli missed in a baseball game.
Teach words likely not in students' spoken vocabulary that follow a targeted phonics pattern	A first-grade teacher (T) showed students (Ss) the following slide and had the students chorally read the words: **Words in Today's Story** oo stood, good, look, brook T: "Remember, double o has two sounds--short /oo/ and long /oo/. Even though they look alike, the double o has two sounds." Then she showed a vocabulary slide: **Vocabulary** **Brook** We went to fish in the brook. The teacher introduced the new vocabulary word brook, referring to a picture and sentence on the board. T: "A brook is a small stream, like a tiny river. Let's read the sentence to practice before we go in our reader." Ss: "We went to fish in the brook." T: "Does anyone have an example of a brook?" S: "I put my feet in the brook." T: "Great! And we see our /oo/ pattern in brook." This exchange took less than one minute, infusing meaning within the phonics pattern that students were about to apply to connected text.

[3] When reading words in connected text, children use phonological (sound), orthographic (spelling), and semantic (meaning) information as they decode (Seidenberg, 2005, 2017). This does not mean that educators should prompt children to guess words based primarily on semantic or pictorial information or use the *three-cueing system*.

Finding 3: Students primarily read words in isolation instead of connected text

In observed lessons, students primarily read words in isolation. In addition to building automaticity at the word level, students must read continuous text to build their reading fluency; this is measured in the TERI:FS text application dimension (see text box). For example, in one lesson, students read words like *rain*, *faith*, *bait*, and *jail* to practice the *–ai* spelling of long /ā/ but never read *–ai* words embedded in a simple decodable or encodable sentence, such as "We got wet in the rain" or "She put the bait on a hook." In fact, only 21% of observed lessons provided an opportunity for students to apply foundational skills to connected text beyond the single word level (see Exhibit 7).

Examples of Text Application in K–2

Text application looks different across the grades. In kindergarten, it can be as simple as reading a sentence, while in second grade, students read passages and books. Here are three grade-level examples:

- **Kindergarten** – When learning consonant-vowel-consonant words with short /o/, students read sentences like, "*He can mop.*"
- **First grade** – When learning long vowel-consonant-consonant words like *–old*, students read sentences like, "*There is mold in the old home.*"
- **Second grade** – When learning that the graphemes *–ie* and *–igh* spell the long /ī/, students read passages or sentences like, "*She did not lie because it was the right thing to do.*"

Moreover, we expected to see notable increases in opportunities for students to apply their developing reading skills to connected text as they progressed through the grades. For example, in kindergarten, children are commonly learning letter sounds and blending them to decode single words or simple phrases/sentences, but by second grade, students should be reading longer paragraphs with regularity. Unfortunately, we did not observe meaningful differences in students' text application opportunities between kindergarten, first, and second grades (see Exhibit 7). Supporting students to develop fluent reading skills requires that they have systematic opportunities to apply their phonics learning to connected text and that these opportunities become more frequent and complex as they progress through the grades.

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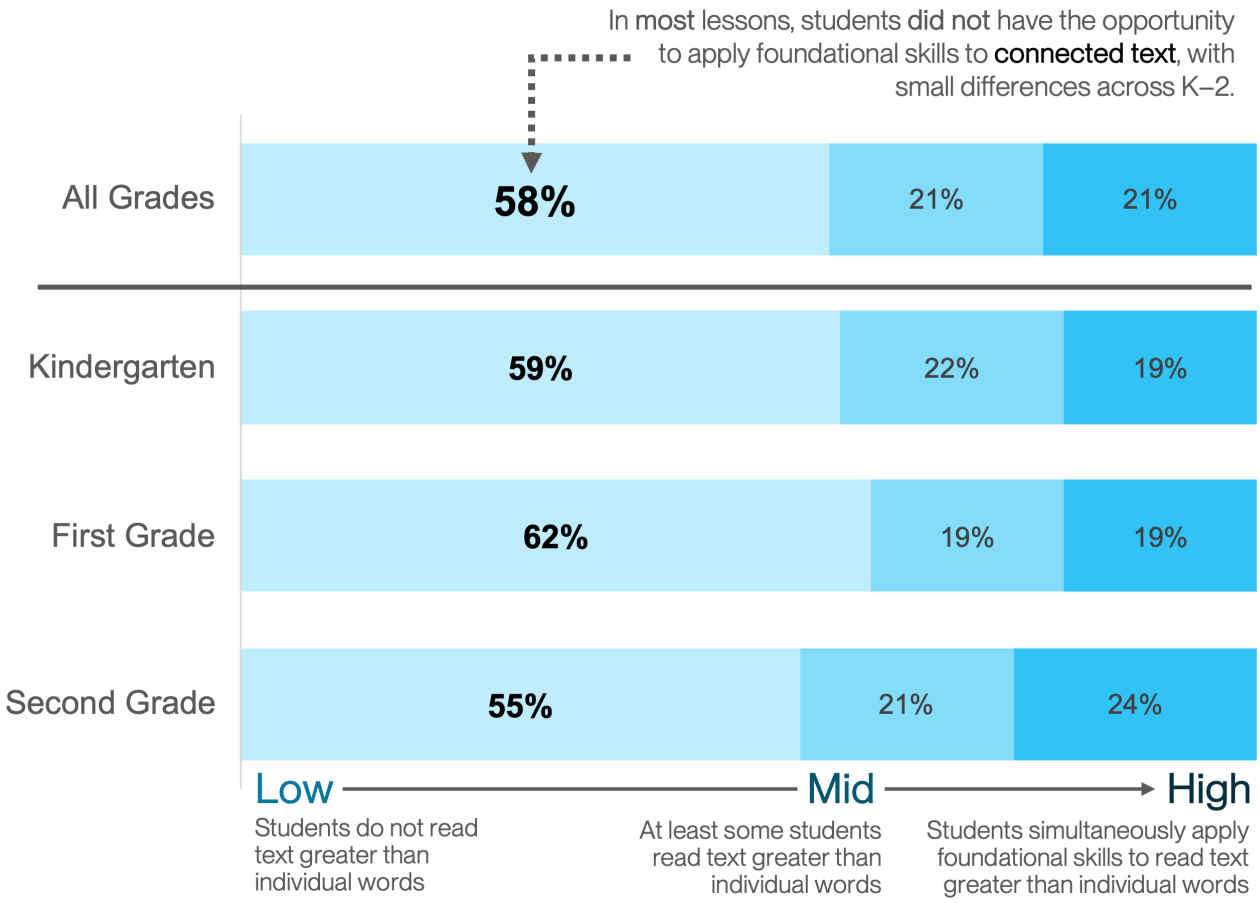
Exhibit 7. Text Application Distributions in Kindergarten, First, and Second Grade



Source. *TERI:FS observations, 2024–25, n=112. Kindergarten n=36, first grade n=42, second grade n=33.*

Note. *One lesson was multiage so it is not included in the breakdown of K, 1, or 2.*

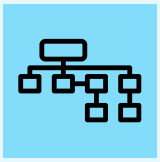
The Role of Curricula in Bridging Processes

While the study did not examine the relationship between specific curricula and instruction, it is important to recognize the role of curricula in driving teachers' practices. Specific designs of foundational skills curricula likely influence bridging skills instruction.

In an initial review of the curricula implemented in this study, there appear to be regular opportunities for text application and building reading fluency across most curricula. On the other hand, curricula varied widely in the degree to which they offered vocabulary development supports within foundational skills instruction. A close analysis of curricular materials can provide school systems with more information on how the materials are supporting bridging processes or what additional professional learning or system changes might foster the integration of bridging processes into foundational skills instruction.

What steps can educators take to bridge word recognition and language comprehension?

To improve literacy outcomes, districts must move beyond treating word recognition and language comprehension as separate—or expecting that they will naturally intertwine, as in the popular Reading Rope heuristic (Scarborough, 2001). Instruction must attend to the bridging processes that connect them, including vocabulary development and reading fluency. This adjustment will not require an entirely new approach to foundational skills instruction, but it will require intentional shifts in organizational structures, professional learning, and teacher practice. Below are specific actions that educators can take to strengthen bridging processes.



Organizational Structures: Shift systems to bridging, rather than separating, word recognition and language comprehension

District and school leaders may need to reexamine literacy instructional ecosystems built around separated processes of word recognition and language comprehension. Here are some ways that school systems can shift mindsets and systems to incorporate more recent research-based practices related to the crucial work of bridging processes.

Establish the importance of bridging word recognition and language comprehension. In many cases, particularly in districts that have separate foundational skills and comprehension curricula, leaders will need to explicitly assert and broadly communicate that bridging processes are core to foundational skills instruction. This articulation needs to make clear that word recognition and language comprehension instruction should intersect, since bridging the two early on will support students' comprehension.

Consider how systems and structures may undermine the bridging of word recognition and language comprehension. Separate curricula, assessments, and instructional blocks can unintentionally reinforce the idea that meaning making belongs outside foundational skills instruction. For example, three of the four study districts use different publishers' curricula for word recognition and language comprehension. In districts where this is the case, leaders will need to decide how to feasibly and systemically address this separation and support teachers to incorporate bridging processes within foundational skills. For instance, a district with distinct curricula may decide to keep the decoding and language comprehension/knowledge building blocks separate but educate teachers on how to incorporate small moments of vocabulary building during decoding lessons.

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Integrate bridging processes into existing school-based data structures. If K–2 data structures focus exclusively on phonemic awareness and phonics, teachers may internalize the belief that those are the only outcomes that matter. It is easy to follow this path since constrained skills, such as nonsense word reading and

letter naming fluency, are more easily measured than unconstrained skills like vocabulary or comprehension (Paris, 2005). However, school leaders and coaches can broaden data discussions in the early grades to include measures of bridging processes like vocabulary knowledge and reading fluency—and even measures of listening comprehension and oral language—to incorporate information beyond word recognition.

Align walkthrough and observation tools with bridging processes. Protocols that emphasize visible phonics routines but do not attend to how students make meaning of what they decode unintentionally reinforce a narrow conception of foundational skills instruction. Leaders may need to revise walkthrough and observation tools to incorporate bridging processes. Aligning tools with bridging processes reinforces that the goal of early instruction is not decoding in isolation but a simultaneous building of word recognition, language comprehension, and bridging processes.

Professional Learning: Strengthen professional capacity for incorporating bridging processes

All four study districts—and many districts across the country—have well-established professional learning structures that focus on word recognition and language development. But too often, these instructional areas are addressed separately, reinforcing the idea that phonics instruction (i.e., word recognition) and language comprehension should remain separate in the classroom. As a result, teachers may be unsure how to incorporate bridging processes, particularly vocabulary knowledge. School leaders and literacy coaches can leverage existing curriculum-based professional learning structures, like professional learning communities (PLCs) and coaching conversations, to support bridging processes like vocabulary development.

Provide professional learning that describes bridging processes and explains their importance for developing readers. District and literacy leaders may embrace the idea that integrating language comprehension and word recognition strengthens reading outcomes, but teachers need structured opportunities to examine and internalize this connection. Without a clear understanding of how bridging processes function within the Active View of Reading (Duke & Cartwright, 2021), foundational skills instruction may continue to focus primarily on phonological (sound) and orthographic (spelling) elements, with less attention to semantic (meaning) integration.

Model ways to develop vocabulary and reading fluency within word recognition instruction. Modeling succinct ways to embed language development into foundational skills instruction is a powerful method to make the vocabulary knowledge bridging process concrete. Coaches can use these opportunities to demonstrate how vocabulary development supports may already exist within the curriculum and how teachers can create them if needed. The key is modeling this work within an authentic lesson to show teachers they can attend to word meaning without derailing foundational skills instruction. Exhibit 8 provides succinct hypothetical examples of infusing meaning within word recognition lessons that literacy coaches could easily describe and model. These are possible strategies, and not all would be used within one lesson. Coaches can also model opportunities to build reading fluency and address pacing and other issues that may prevent teachers from incorporating connected text.

Provide opportunities for video recording, peer-to-peer observations, and coaching conversations.

Incorporating opportunities for teachers to rehearse bridging within the context of their own lessons during professional learning, video record and observe bridging in action, and discuss these processes with a coach would further elevate teachers' understanding of *how* to do to this work. For example, lesson rehearsal, when preceded by modeling and embedded within curriculum-aligned professional learning, creates space for teachers to try out bridging moves before bringing them into the classroom. Incorporating these practices into professional learning also increases the likelihood that attention to bridging processes becomes a routine part of foundational skills instruction.

Exhibit 8. Examples of Succinct Vocabulary Bridging Routines by Type

Type of support	Example
Provide definitions/ meaningful context	When practicing vowel-consonant-consonant (VCC) segments, students decode the word *lift*. The teacher pauses to define *lift* as "to pick something up." The teacher then uses it in a sentence: "We lift our backpacks up off the floor."
Non-linguistic representations - embodied	The teacher provides an embodied, non-linguistic representation of *lift* by going over to the classroom entryway and lifting a backpack of the floor, while saying, "I lift this backpack." She then asks the students if they can show *lift*. One student picks up a pencil and says, "I lift my pencil." Another picks up their water bottle and says, "I lift up my water bottle."
Non-linguistic representation - visual	The teacher shows a picture (digital or physical photo or drawing) of a parent lifting a child off the floor and says, "Parents lift their children off the floor." She shows a second picture of a person lifting weights and says, "My friend lifts weights every day."
Shades of meaning	The teacher explains that while "to pick up" or "to pick up and move" is the most common meaning of *lift*, there are other meanings as well. For example, she explains, some people use the word *lift* to mean to *steal* or *take*. The teacher provides an example of this meaning of *lift* in a sentence: "Pickpockets can lift people's wallets without them realizing." They might connect to the word *shoplift* or *shoplifter*.
Connection to students' languages or dialects	The teacher asks her students, who are mostly fluent Spanish speakers, how they would say *lift* in Spanish. "*Levantar*," calls out a student. "Yes, *levantar*," the teacher replies. "Can you use it in a sentence?" The student provides an example: "*No puedo levantar la bolsa porque es pesada. [I can't lift the bag because it's heavy.]*"
Morphemic and syntactic support	When a student says, "My dad lift weights yesterday," the teacher provides corrective feedback to the student and says "Great example of *lift*. Since your dad did it yesterday, in the past, you would say, 'My dad *lifted* weights yesterday.'" The teacher then writes this sentence on the board. The teacher goes on to explain that if something happens in the past, for most verbs we add the word part *–ed* and underlines this morpheme.
Morphology brainstrom	A teacher has students brainstorm words that include *lift*. They may come up with *liftable*, *ski-lift*, *uplift*, *deadlift*, *lifter*, *forklift*, *lift-off*. The teacher chooses one word, divides it into morphemes, and connects to word meaning (e.g., lift/able – something that is able to be lifted). With additional vocabulary support outside of phonics instruction, students can build a generative vocabulary system to learn thousands of words with affixes (e.g., *–ing*, *–able*, *–er*, *up–*) and root/base words.
Would you rather	The teacher asks a low-stakes "Would you rather?" question using the target word. "Would you rather lift your little cousin into the air or lift your team's spirits after losing a game? Why?" Students turn and talk to a partner with their answer, beginning with the sentence frame, "I would rather lift... because..." This provides all students an opportunity to engage with the word and practice using it in oral language.

Teacher Practice: Prioritize instructional time for bridging processes

Teachers do not need to wait for aligned systems or updated professional learning to incorporate bridging processes into their practice today. It is up to teachers to provide time and scaffolds for their students to take advantage of the vocabulary development and text application opportunities in their curricula. Here are some immediate actions teachers can take to implement bridging processes into their foundational skills instruction.

Examine foundational skills curriculum for vocabulary and connected text practice opportunities. To strengthen students' opportunities to engage in vocabulary and reading fluency bridging processes, teachers should ask themselves: Do lessons attend at all to word meaning? Are practice sentences or passages provided at the end of each lesson? While Exhibit 8 shows ways to integrate vocabulary into foundational skills, Exhibit 9 offers text application examples that we observed in first-grade classrooms. While all the adopted curricula offer opportunities for text application and developing fluency, if those opportunities are not deemed sufficient, teachers also can work with their literacy coaches to augment the reading fluency bridging processes.

Be mindful of pacing so there is time for vocabulary and connected text practice opportunities. While quick vocabulary development opportunities can be integrated throughout lessons, curricula often provide opportunities for students to read connected text at the end of a lesson. If teachers find they are routinely running out of time and cannot fit in these reading fluency opportunities, they should examine what parts of the lesson are running too long and how they might adjust pacing. For example, in our observations, routines for reviewing letter sounds or general segmenting and blending sometimes took longer than necessary and precluded time for reading connected text at the end of the lesson.

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Provide opportunities for all students to read connected text and attend to word meaning. Teachers can ensure that all students have access to grade-level connected text that will support their developing bridging processes. Targeted instructional moves can scaffold access to connected text without reducing the rigor of the task. Students can take turns with a peer who has more advanced literacy skills, for example, each reading a portion of the connected text (Breadmore et al., 2026). Teachers can also help "debug" a text before students read it by pre-teaching vocabulary, reviewing orthographic patterns, and using texts that build upon relevant content knowledge.

Exhibit 9. Examples of Text Application Opportunities from Observations of First Grade Classrooms

Routine	Text application opportunities to build reading fluency
Reading and writing short sentences	After reviewing short /a/, /i/, and /o/, students read the sentence on the board all together: "He got to band camp at six." Then the teacher dictated a new sentence: "Is it the last stop?" and reminded the students to stretch each word as they each wrote it on their whiteboard.
Partner reading	After students practiced reading words with double o, they got out their readers and sat knee to knee with their partner. Partners were intentionally paired with one student who had stronger reading skills and one student who was more striving. The teacher reminded them, "Even if it's slow and steady, do your best." The students read a decodable text about three hares who *stood* in the grass, wishing they were not scared of a splash in the *brook*. If a child was stuck on a word, they asked their partner or raised a hand for the teacher's help. Every child had their own book, and every child was applying their new phonics skills to the story.

Reinforcing Bridging Processes and Building Stronger Readers

Although incorporating bridging processes into foundational literacy instruction may be challenging for districts, attending to bridging processes in organizational structures, professional learning, and teacher practice offers a clear pathway towards improving students' reading. Prioritizing stronger connections between word recognition and language comprehension—and intentionally integrating vocabulary development and reading fluency into foundational skills instruction—creates more consistent opportunities for students to apply decoding in meaningful contexts. Over time, such integration builds the knowledge and skills required for robust comprehension and sustained reading success.

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