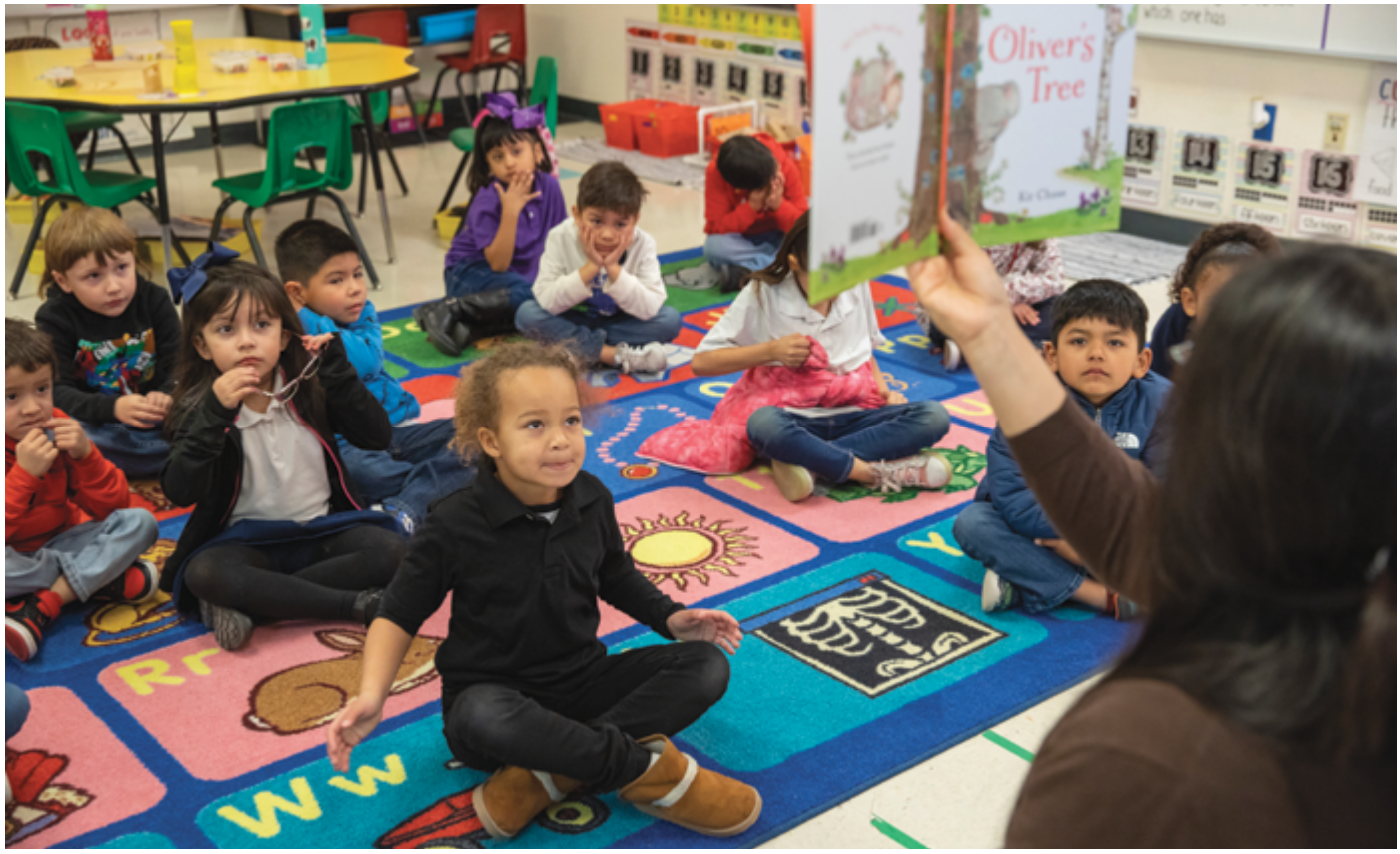
Creating Confident Readers

How LETRS Supports Teachers—and Their Students



At Vado Elementary School in Vado, New Mexico, students have been thriving since their teachers participated in LETRS professional development. Here, kindergartners in Patricia Ramos's class are listening to a whole-group read-aloud.

PHOTOS BY PAMELA WOLFE

By Louisa C. Moats

In 1999 and again in 2020, I was honored to write *Teaching Reading* Is *Rocket Science* for the AFT. This report (which is available for free at go.aft.org/keo) summarizes key findings from reading science and their implications for teaching literacy. It also outlines what all early childhood and elementary teachers should know about language, reading, and writing development—a challenging set of concepts that teachers should be studying from the beginnings of their teacher preparation programs to the ends of their careers. I'm heartened that the AFT's reading courses* are grounded in this science, but my hope has long been that *all* teacher preparation programs across the country would be informed by science and structure their literacy courses accordingly. Although there has been significant progress in the last 20 years,[1] we are still far from that goal. Consequently, the students who would benefit the most, including struggling readers and English learners, continue to fall behind at unacceptable rates.

To remedy that, I'm hoping to reach all teachers who have not yet had an opportunity to learn this science with LETRS (Language Essentials for Teachers of Reading and Spelling) professional development.[2] Yes, this is a commercially available program published by a for-profit company. And yes, as the lead author of the program, I have a financial stake in it. However, as a former teacher, psychologist, and researcher, my primary goal is to ensure that every child learns to read—because I know that most children can and will if they are well taught.[3]

Several decades ago (yes, I'm also past retirement age), I hoped that the then-emerging science of reading would be widely adopted by professors, state and district policymakers, textbook publishers, and professional development providers. When I saw resistance in some areas and slow progress in others, I sought ways to improve

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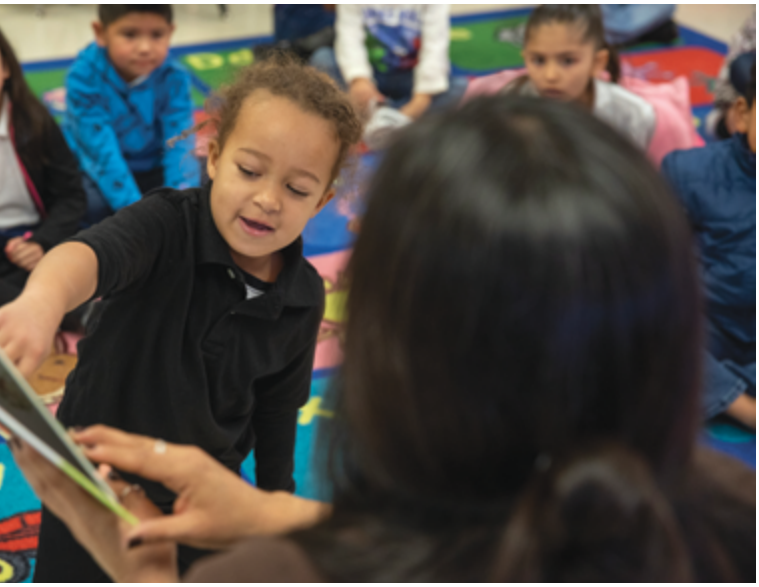
*To learn about the AFT's courses, see go.aft.org/0ki.



and distribute the courses I had been creating for my graduate students. LETRS was the eventual result.

No information presented in LETRS is unique or proprietary—it just breaks down the "rocket science" of reading instruction into carefully sequenced units so that teachers build the insights and knowledge necessary to succeed. Although LETRS has become popular in recent years, my sincere hope is that in the near future it becomes unnecessary because teachers are already masters of this science as they graduate from their preparation programs and are routinely supported by well-informed administrators and science-based materials. Until that day comes, LETRS is my best effort to give our nation's teachers the information they need. In this article, I explain the origin and development of LETRS and the rationale for the course content.

Investing in Teachers' Expertise

LETRS is not a program of instruction for teaching reading to children. It is a professional development course of study in which more than 200,000 educators are currently participating. At least four states and 2,500 districts require or suggest that K–3 teachers take LETRS, and the number of participants continues to grow. The goals of LETRS are, in a nutshell, to build teachers' knowledge of language structure and the processes involved in learning to read words, spell, and comprehend, and then to help teachers apply these understandings in their classrooms. Unlike some program developers who believe that fidelity to a curriculum in a box makes teacher expertise unnecessary, my LETRS colleagues and I believe that teachers are indispensable facilitators of students' learning, and thus, teachers must know enough to be good decision makers and problem solvers. Our favorite saying, adapted from Maya Angelou, is, "When we know better, we do better."

Teaching reading is complex. Consider the choices teachers are faced with daily: How do I parcel out instructional time? Which students require more work on which essential components of literacy? How do I use assessments to learn what I really need to know to differentiate instruction? How do I organize and sequence information for instruction in various component skills? How can I integrate the various components? How can I stimulate growth in my students' language comprehension? Published instructional programs are helpful tools, but it is teachers who confront and resolve these challenges. Instructional problems can only be solved by those who know a fair amount about how print represents language, how children learn to read and write, why some may have difficulty, and what kind of instruction is likely to help students succeed. LETRS was developed in response to evidence that teachers, for the most part, were not receiving enough of this vital information in their pre-service or in-service training—and were eager to learn more.

How Did LETRS Evolve?

I created the prototype for LETRS in the early 1990s—not as a published program but as two graduate courses I pieced together for teachers earning master's degrees at Saint Michael's College in Colchester, Vermont. At the time, working as a psychologist specializing in language-based learning disorders, I was conducting clinical evaluations of people of all ages who were experiencing dyslexia and other learning difficulties. Through those case consultations, I observed that teachers on the receiving end of my reports seldom had the background, training, or contextual support to implement the recommendations. Those reports often called for systematic, explicit teaching of language skills, including phoneme awareness, phonics, spelling, vocabulary, syntax, text reading comprehension, and writing, both in the regular classroom and in intervention settings.

> LETRS breaks down the "rocket science" of reading instruction into carefully sequenced units.

I petitioned Saint Michael's, where I was a part-time instructor, to offer two electives—Language 1 and Language 2. The first course focused on understanding and teaching word recognition, and the second course focused on oral language and teaching language comprehension. Through informal surveys of teacher knowledge that included such tasks as counting phonemes, identifying orthographic patterns, identifying morphemes, parsing sentences, or recognizing characteristics of narrative text structure, I found that most of the teachers who took the courses (and who were otherwise competent and dedicated) had not previously studied this content. Most were eager to learn and knew that their pre-service preparation in literacy had been inadequate.[4] Simultaneously, a growing body of research (which I summarized in the original *Teaching Reading* Is *Rocket Science* report and which was authoritatively set forth in the National Reading Panel's report *Teaching Children to Read*[5]) affirmed that reading and writing were dependent on language skills that, if explicitly taught, would make a critical difference in children's literacy growth.

I later offered these Language 1 and 2 courses during the 1990s and into the 2000s at the Greenwood Institute in Putney,

Lee Anna Vasquez, a reading interventionist, uses a sound wall to teach students the articulatory features of phonemes. Here, she shows students how to produce /i/ sounds as in *itch* (top) and *ice* (bottom).

Vermont, and at Simmons College (now Simmons University) in Boston, where my colleagues and I taught graduate students. I also adapted the courses for teachers in the Washington, DC, Early Interventions Project,[6] where I was site director for a project funded by the National Institutes of Health in nine schools that primarily served students of color from low-income families. At the end of that project, the teachers had raised their students' relative standing between grades K–4 from the 17th percentile on average to the 48th percentile in overall reading achievement.[7] Data analyses at the conclusion of that project indicated that the professional development component was instrumental in both teacher and student growth.

Through that first decade of teaching both courses to teachers in varied settings, I modified the pace of learning and the activities used to reinforce critical concepts. I discovered, for example, that the most difficult component of instruction for teachers to grasp in sufficient detail was phonology and phoneme awareness. Multimodal phoneme awareness activities and analysis of spelling errors turned out to be extremely important in understanding how speech is represented by print. I also learned that the querying process expected of teachers during text reading—the indispensable teacher's tool for building a mental model of the text—took a great deal of practice and coaching. On the whole, the evolution of course content and pedagogy (which continues to this day) has involved slowing down the pace, giving tons of varied practice, and increasing the frequency with which concrete activities are linked with theory and research. The third edition of LETRS that is now in use was thus refined over about three decades.

LETRS, Year 1: Foundational Reading and Spelling Skills

The LETRS courses, which are designed for teachers in grades K–3, are to be implemented over two years. In the first year of LETRS (book 1, units 1–4), teachers learn how to teach phoneme awareness, beginning and advanced decoding, word recognition, and spelling. In the second year (book 2, units 5–8), participants shift their focus to oral language, vocabulary, reading comprehension, and writing in response to reading. Several theoretical frameworks for understanding reading and writing in grades K–3 provide conceptual cohesion and are woven throughout the eight units. Each unit, however, allows teachers to focus on one important aspect of teaching at a time. The courses build knowledge in a progressive sequence in which one topic supports and is connected to the next—a feature that distinguishes LETRS from professional development offered as a patchwork of various options that teachers can self-select.

Theoretical Frameworks and Illustrations

LETRS continually references several widely accepted, scientifically validated models of reading acquisition and reading processes. The two-part organization of LETRS parallels a well-validated construct called the Simple View of Reading.[8] The Simple View states that reading comprehension is the product of word recognition and language comprehension (WR x LC = RC). Proficient reading requires competence in each skill domain. Thus, each major component of reading receives equal time in professional development, including the subskills integral to each part of the equation. Allocation of instructional time across these domains and integration of basic skills with meaning making are constantly reinforced throughout LETRS.

Other models and frameworks that provide conceptual glue are Linnea Ehri's phase theory of reading development,[9] Hollis Scarborough's rope model,[10] Mark Seidenberg's triangle model of word recognition,[11] and Jane Oakhill and Kate Cain's research on reading comprehension.[12] Research from brain science is also referenced, especially in discussions of learners with dyslexia and related reading difficulties.[13]

Children must gradually differentiate the sounds in spoken words and map them to letters and letter sequences.

Phoneme Awareness

The ability to recognize printed words out of context, quickly and accurately, is gained *not* by a visual imprinting process, but by building a mental map connecting speech with print. By learning incrementally how graphemes (letters and letter combinations) represent speech, novice readers and spellers gradually build a mental storehouse of known words that can be instantly recognized and recalled.[14] Every phase of this process depends on the ability to recognize and mentally manipulate the phonemes or

speech sounds that make up words (phoneme awareness). From pre-alphabetic, to partial alphabetic, to full alphabetic, and then to consolidated word recognition and recall, children must gradually differentiate the sounds in spoken words and map them to letters and letter sequences.

The second unit of LETRS is all about phonemes and phoneme awareness. While many sources on teaching reading name phoneme awareness an essential component of instruction and give examples of activities that help students build awareness in K–1, LETRS appears to be unique in its requirement that teachers learn the phonemes of English—not as sounds represented by letters of the alphabet, but as building blocks of speech that are distinguished by articulatory properties or features. Learning the consonant and vowel sound systems in English allows teachers to understand why certain phonemes are more difficult to perceive and learn than others, why many students confuse specific phonemes, and why English learners typically benefit from explicit instruction in how the sounds of their home language differ from, and overlap with, English.

Referencing charts with the 25 consonant phonemes and the 18 vowel phonemes in English (plus schwa, the unstressed vowel), teachers learn how to pronounce, describe, and compare them. The charts we use (below) show clearly which consonants differ only in voicing and which share a place of articulation (e.g., the tongue is behind the teeth with /t/, /d/, /n/, /s/, /z/, and /l/). The vowel chart shows that each vowel differs from its neighbor by subtle changes in the position of tongue, jaw, lips, and air flow. Armed with this information, teachers are in a better position to select easier or harder examples of contrasting sounds (for example, the vowels /ĭ/ and /ŭ/ are easier to distinguish in speech than the vowels /ĭ/ and /ĕ/, and the consonants /ch/ and /b/ are easier to distinguish than the consonants /ch/ and /j/).

Figure 1: English Vowels by Order of Articulation

Front, High (Smiley)

/ē/ (equal)
/ĭ/ (itch)
/ā/ (apron)
/ĕ/ (edge)
/ă/ (apple)
/ī/ (ice)

[ə] (sofa)

Back, High

/y//ū/ (unicorn)
/ū/ (moon)
/o͝o/ (book)
/ō/ (open)
/aw/ (saw)
/ŭ/ (up)
/ŏ/ (octopus)

(Rounded)

Middle, Low (Open)

/oi/ (boy)
/ow/ (cow)

/er/ (her, bird, turn)
/ar/ (star)
/or/ (born)

Figure 2: English Consonant Phonemes by Place and Manner of Articulation

	Bilabial (Lips Together)	Labiodental (Teeth on Lip)	Interdental (Tongue Between Teeth)	Alveolar (Tongue on Ridge Behind Teeth)	Palatal (Tongue Pulled Back on Roof of Mouth)	Velar (Back of Mouth)	Glottal (In the Throat)
Stops Unvoiced Voiced	 /p/ /b/			 /t/ /d/		 /k/ /g/	
Nasals	/m/			/n/		/ng/	
Fricatives Unvoiced Voiced		 /f/ /v/	 /th/ /th/	 /s/ /z/	 /sh/ /zh/		/h/
Affricates Unvoiced Voiced					 /ch/ /j/		
Glides Unvoiced Voiced	 /wh/ /w/				 /y/		
Liquids				/l/	/r/		

Because students learning English disproportionately have a hard time learning to read English, and because students whose home language is Spanish comprise 75 percent of English learners in the United States,[15] we deliberately contrast the phonemes of English with those of Spanish using the consonant and vowel charts. When Spanish-speaking students learn a sound in English that is not in Spanish, such as /z/, instruction should be explicit and systematic and refer to articulation. There are many phonological differences between the two languages, as well as differences in the way letters are used to represent sounds (e.g., the letter *j* represents the sound /h/ in Spanish); explicit instruction in how each system works is extremely helpful to teachers of multilingual learners and to their students.

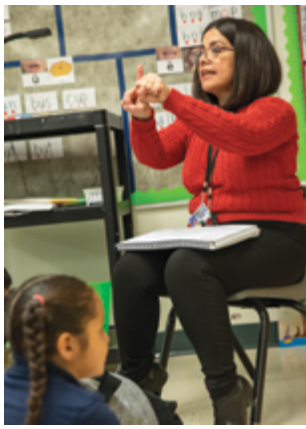
Building Teacher Knowledge of Phonology

Learning the phoneme charts and the pronunciation of the phonemes is only the beginning step. Literate adults store words in their memories by consolidating each word's sound(s), spelling, and meaning into an amalgamated unit. We often observe that it is quite difficult and requires much practice for teachers to uncouple their awareness of the sounds in a word from their knowledge of its spelling. The number of letters in a printed word often does not correspond to the number or the identity of its phonemes. For example, *box* has four phonemes (/b/, /o/, /k/, /s/) and *scratch* has five (/s/, /k/, /r/, /a/, /ch/). Teachers must direct their attention away from print to identify phonemes, or else they will continue to confuse letters with sounds and to be unclear about the sounds in words during phoneme manipulation practice. They will also continue to teach students misleading information such as the idea that English has "five vowels" (*a*, *e*, *i*, *o*, *u*) or that the *qu* combination is "one sound." English has 18 vowel sounds and five letters to represent them (plus a few helpers: *w*, *y*, and *gh*). The *qu* combination is actually a consonant blend (/k/, /w/) in which the letter *u* represents a consonant glide. If *u* always represented a vowel, then the word *quick* would have two syllables (two different vowel sounds); obviously, it does not.

In LETRS, we engage participants in several activities that help them uncouple their phonological (sound) processing systems from their orthographic (print) processing systems. For example, we have teachers write out a phonetic transcription of the sounds in the names of the 26 letters, to see where there is overlap and where letter names differ substantially from the sounds they represent (such as *w*, /w/). Clarity about which is which—phoneme or letter name—allows teachers to put themselves in the shoes of the novice learner who comes to reading armed with oral language and who must figure out how spoken words match up with print. The step after a phoneme awareness "warm-up" in a code-focused lesson is teaching how the elements and patterns of our writing system represent language at several levels: the sounds, meanings, and grammatical roles of words.

Decoding and Spelling

Once the first reference point for learning the print system—identification and sequencing of phonemes in spoken words—has been thoroughly explored by teachers, the next two units of LETRS address phonics and spelling instruction. We want teachers to integrate phoneme awareness, decoding, spelling, and word reading for automaticity in their foundational skill lessons, but we build teachers' competence with one element at a time before expecting that integration to occur. We emphasize the value of a structured phonics lesson plan that progresses through an "I do, we do, you do" format for teacher-led instruction. As they learn the phonics lesson sequence, teachers see and practice many specific activities for the purpose of explaining concepts, providing practice, and applying concepts to text reading and writing. Demonstrations occur through embedded videos and role-play sessions. We also ask participants to apply what they are learning with at least three students in their classes through "bridge to practice" assignments.



One goal of LETRS is to equip teachers with knowledge of English orthography sufficient to explain why words are spelled the way they are. To do so, teachers are encouraged to draw upon any of the following five distinct sources of information:

Reading should be undertaken for a purpose, and that purpose should serve a larger, knowledge-building goal.

1. *Language of origin.* English is a richly expressive language largely because it has adapted words from many languages; learning about those languages helps unlock some spelling mysteries. For example, words of French origin often use *ch* for the sound /sh/ (*charade*, *brochure*, *Charlotte*), but words of Greek origin often use *ch* to represent /k/ (*character*, *chorus*, *scholar*).
2. *Phoneme-grapheme mapping.* Graphemes are letters and letter groups that represent phonemes. For example, the graphemes in *sleigh* are *s-l-eigh*, while the graphemes in *thatch* are *th-a-tch*. Some letters, like *e*, have many jobs to do in this sound-letter correspondence system.
3. *Position-based spellings.* Noting the position of a sound makes the spelling far more predictable. For instance, "long a" is represented by *ai* in the middle of syllables, but *ay* is used at the ends of syllables (*gain/gay*, *bail/bay*, *paid/pay*). The same pattern holds for the slider vowel (diphthong) /oi/, which is spelled *oi* if it is followed by a consonant but *oy* if it is not (*toil/toy*, *coin/coy*).
4. *Arbitrary rules of letter use.* Although English spelling is more rule governed than many people believe, there are some arbitrary patterns that must be learned either explicitly or implicitly. For instance, no words in English end in the letters *v* or *j*; the let-

ters *c*, *u*, and *x* are among those that are not doubled; and certain letter sequences do not occur within syllables, such as *cw* or *ngk*.

5. *Morphology*. The meaningful parts of words (morphemes) are preserved in spelling even though they may not match pronunciation very closely. For example, in *ex-press-ion*, *ex* is a prefix, *press* is a root, and *ion* is a suffix. If students have not learned these morphemes, they may write "ekspreshun," which is the way the word sounds.

When teachers have not had ample opportunities to learn how to explain words' spellings, they are much more inclined to believe—and teach—that the English writing system is chaotic and nonsensical.* Believing that is the case too often leads educators to rely on "sight" word methods such as "using your eyes like a camera," drilling with flash cards, telling students to look at pictures and use context to guess an unknown word, or reciting letter sequences to memorize words.

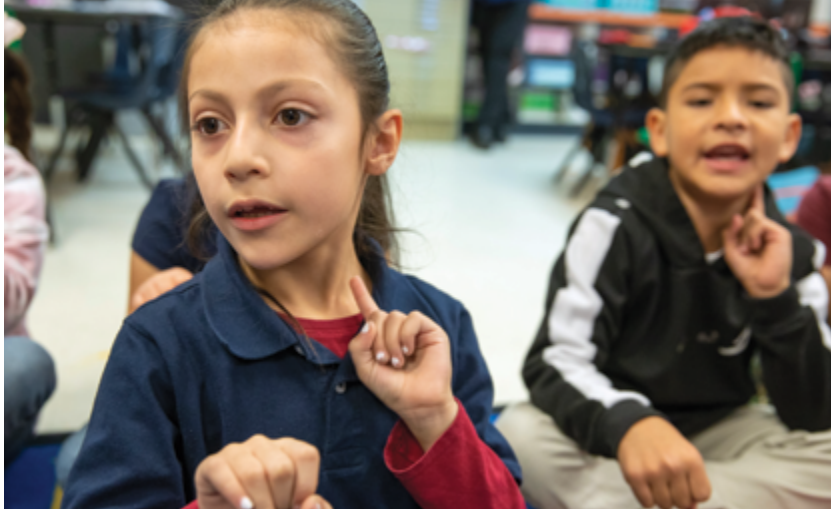
One central goal of LETRS is to put meaning over rote memorization. That's why part of the phonics lesson plan is working with the meanings of words that students are learning to decode or spell. Our theoretical frameworks emphasize the importance of connecting sound, meaning, and spelling while the mental code-mapping process is under construction. Decodable words, phrases, sentences, and stories should be targets for practicing what has been directly taught and should be used for activities such as multiple-meaning webs, antonym and synonym pairings, segmenting and blending words by morpheme (e.g., *play-ful*, *play-ful-ness*, *re-play-ed*), sentence anagrams, sentence sequencing, and summarizing.

One of the skills we help teachers develop is selecting different kinds of texts for varied purposes. To that end, we ask participants to analyze and compare the words in leveled texts, predictable texts, "sight word" texts, and decodable texts (which are designed to reinforce the use of phonics to tackle unknown words). Careful analysis of texts is eye-opening for many participants who have not realized that leveled and predictable books require students to try to read many words whose spelling-sound correspondences have not been directly taught. While analyzing decodables, teachers can identify the specific correspondences that will enable students to read the words independently—without relying on contextual guesswork.

Understanding of the process of reading development, combined with knowledge of the writing system itself, usually results in teachers shifting toward using decodable books to reinforce instruction in phonics. The transition away from leveled texts may pose challenges if schools have limited funds, but some free or inexpensive materials are available online.†

Assessments

Differentiation of instruction and assignment of students to flexible, needs-based small groups is only valuable if relevant data are driving the grouping process. Within book 1 of LETRS, teachers learn to use a phoneme awareness screening test,‡ the LETRS Phonics and Word Reading Survey, and the LETRS Spelling Inventory (a diagnostic survey). In addition, we encourage the use of Acadience Reading's screeners, progress-monitoring tools, and supplementary diagnostic tests.§ These informal measures provide enough data to make initial decisions about student grouping. We have teachers work through case studies with student and classroom data from these sources so they can learn how to use the data to meet students' needs.



In Keren Buenfil's first-grade class, two students change the initial sound of *save* from /s/ to /c/, making the word *cave*.

We also coach teachers on interpretation of spelling and reading errors. Students' errors or naive attempts at word reading or spelling are windows into their processing of both speech and print. Linnea Ehri's phase theory, combined with error analysis, can indicate whether a student needs additional work on phoneme awareness and, if so, which sounds need practice and at what level of challenge. Likewise, the data can indicate which phonics concepts should be targeted, which morphemes the student is ready to learn, and whether the student is receiving sufficient practice to become fluent and automatic in word reading and/or spelling.

LETRS, Year 2: Vocabulary, Language Comprehension, and Writing

Referring again to the Simple View of Reading (Word Recognition x Language Comprehension = Reading Comprehension), participants in the second year of LETRS focus on the language comprehension part of the equation. Beyond the translation of the written alphabetic code into speech, comprehension of written text involves very much the same verbal capacities as comprehension of spoken language. Those include background knowledge, knowledge of word meanings, understanding of complex sentence structures, awareness of text structures (such as narrative and informational text formats), and abstract reasoning (including inferencing). Furthermore, the process of comprehension during reading begins with literal meanings and builds to a mental model of deeper meanings and associations. We envision the teacher playing a very active role in facilitating text comprehension through careful pre-reading preparation, purposeful questioning during reading, and use

*To learn more about English spelling, see "How Words Cast Their Spell" in the Winter 2008–2009 issue of *American Educator*: go.aft.org/uxe.

†For free decodable texts, see opensourcephonics.org.

‡We use the Phonological Awareness Screening Test, which is available for free (along with guidance for using it) at thepasttest.com.

§Acadience's materials are available for free at acadiencelearning.org/acadience-reading/k-grade6.

of various after-reading activities to help students deepen and consolidate their understandings. All of this, we recommend, should occur with high-quality texts selected for their knowledge-building potential.

Oral Language and Literacy

Throughout LETRS, we emphasize the intricate interaction between and interdependence of oral language competence and literacy. We review data on early language development and the contextual factors that facilitate it, especially the verbal behavior of caretaking adults, such as taking turns while talking about shared experiences, enthusiastically answering children's questions, and purposefully mixing in new vocabulary. (This aspect of early childhood experience is a major focus of LETRS for Early Childhood Educators,[16] which is aimed specifically at the needs of children 0–5 years of age.)

A common reaction of participating teachers is, "Why didn't anybody teach me these things before?"

Vocabulary

Book 2 of LETRS begins with a unit on understanding and teaching vocabulary. Teachers learn that knowledge of individual word meanings is a major factor in overall reading comprehension outcomes. To bring the issue home, teachers complete exercises designed to challenge their own comprehension, such as reading passages with obscure words. Book 2 reviews research on the relationship between word-learning opportunities and overall language and reading growth between infancy and third grade, with an emphasis on how to narrow gaps that arise early in development. During the unit, participants are also expected to acquire and then evaluate how well they have retained relevant professional terms so that they expand their own vocabulary while they are learning principles of instruction to apply with students.

Like many other professional development sources, we discuss routines for in-depth teaching of selected words.[17] The needs of multilingual learners for expanded vocabulary support are addressed throughout. Teachers use example texts to select, plan, model, and share how they would teach key terms to their students. Through practice exercises, they also apply techniques such as teaching multiple meanings of words, categorizing, scaling words on a qualitative dimension (e.g., *miserable* to *ecstatic*), and using semantic feature analysis. In addition to promoting students' use of new words, a goal of the unit is to upgrade the complexity and precision of teacher talk in the classroom so that students will be continually exposed to richer and less common vocabulary.

Text-Driven Comprehension Instruction

Units 6 and 7 of LETRS prepare teachers to facilitate their students' understanding of complex and worthwhile texts. We do not want teachers to equate comprehension instruction with reading a text silently and applying comprehension strategies to answer multiple-choice questions. Reading should be undertaken for a stated purpose, and that purpose should serve a larger, knowledge-building goal.* Our aim is for teachers to view themselves as chief navigators—active guides who will help students make connections between what they know and what the text says. To prepare teachers for that role, we ask them to distinguish the mental *processes* involved in constructing a text's meaning and the visible *products* that students generate along the way. We examine what occurs in the mind during reading and review research showing where comprehension can and does break down. We ground this discussion with a graphic illustration depicting the contributions of long-term memory and working memory as we make sense of language.†

Our emphasis is not so much on teaching traditional strategies (such as making predictions, finding the main idea, questioning, and summarizing), but on selectively employing such techniques in the service of exploring the meanings in a specific text. Research-supported strategies are embedded within three distinct phases of teaching a text for a defined purpose: before, during, and after the reading. Our comprehension planning guide addresses key considerations and actions to take in each phase. Here are some activities teachers rehearse during these LETRS units:

Preparing the text (before reading):

- Decide and state the "enduring understandings" you want your students to take away from the reading.
- Preview the text to identify and select key vocabulary for in-depth instruction.
- Preview the text to find challenging forms of academic language, such as unusual syntax, word use, figures of speech, or pronoun references.
- Prepare an introduction to the content that will build sufficient background knowledge to begin the reading.
- Anticipate where you will probably ask questions that will help students make inferences and build their mental models of what the text says.

During the reading:

- Inject clarifications as necessary, such as brief definitions of topic-specific terminology.
- Pose queries to help students clarify, associate, summarize, and predict what might happen.

After the reading:

- Use graphic organizers, two-column note charts, story boards, and/or illustrations to review, retell, or summarize the reading.
- Structure writing tasks that respond to the reading.

*For more on the importance of this larger goal, see "Building Knowledge: What an Elementary Curriculum Should Do" in the Summer 2020 issue of *American Educator*: aft.org/ae/summer2020/wexler.

†For details on long-term memory and working memory, see "How Knowledge Helps: It Speeds and Strengthens Reading Comprehension, Learning—and Thinking" in the Spring 2006 issue of *American Educator*: go.aft.org/ap4.

Writing in Response to Reading

The final unit of LETRS addresses beginning writing instruction. We discuss why writing is challenging for many students and review research showing that mastery of writing foundations (handwriting, spelling, punctuation, basic grammar) facilitates composition of longer and higher-quality text. This unit devotes more time to a topic introduced in unit 6: how to recognize and construct simple, compound, and complex sentence structures, and how to link sentences together in a cohesive paragraph or composition. To wrap up the unit, we review writing samples with the help of an evaluation rubric and use them to pull together many other concepts taught throughout the whole LETRS course of study.

Impact of LETRS

LETRS professional development is designed to be implemented over two years so that teachers have time to absorb, integrate, and apply the concepts. Teachers often experience complex emotional reactions as they learn more about the science of reading and the structure of language. Some teachers express grief and regret over their past use of ineffective (but widespread) practices and anger that their prior opportunities to learn about teaching reading were inadequate or even misinformed. A common reaction of participating teachers to their experience in LETRS is, "Why didn't anybody teach me these things before?" The value of the information is readily apparent when students begin to make progress. Student growth quickly validates teachers' efforts to teach language, reading, and writing explicitly.

In translating concepts and guidance from research, we encourage teachers to confront and abandon ideas, practices, and programs that many have used or been taught—often under district or state standards and requirements—that do not align with current understandings grounded in evidence. For example, many districts are still wedded to programs and approaches based on "cueing systems," a tenet of guided reading that does not recognize the central role of phonology or phonic decoding in learning to read and spell. An underlying assumption that reading is primarily a visual imprinting activity drives other misconceived but all-too-common practices, such as posting "sight" words on an alphabetic word wall regardless of the beginning sounds in the words (e.g., posting *out*, *once*, *only*, and *often* under *o*). Many district and state standards require kindergarten and first-grade readers to memorize dozens of words on flash cards or spell lists of words by rote visual memory, even though in reading science, all words are eventually learned "by sight" through a process of speech-to-print mapping, beginning with phoneme-level processing.[18] Turning away from common but unsupported practices poses dilemmas for teachers and schools because the misconceived ideas have been established in reading education for so long. Many published programs have yet to catch up to the science, and relatively few incorporate good instruction with both components of the Simple View equation. The transition from status quo to new approaches can be fraught with problems of curriculum alignment and time allocation that have no easy solutions. Nevertheless, many schools and districts have reported significant gains after deciding to move ahead, such as the Cedar Rapids Community School District in Iowa, Enid Public Schools in Oklahoma, and the Cullman City Primary School in Cullman, Alabama. As several educators at Vado Elementary School in New Mexico explain (see page 12), the transition away from unsupported practices can be difficult—but the rewards are soon apparent. As kindergarten teacher Patricia Ramos put it, "Now with explicit teaching, the light bulb moments are brighter for sure."

Perhaps the dramatic gains in Mississippi between 2014 and 2019 are the best example of what can happen when all aspects of a system are working toward the same goal. Mississippi was the only state to make significant progress on fourth-grade reading on the National Assessment of Educational Progress in 2019, after a five-year effort that included LETRS training for K–4 teachers, K–8 special education teachers, elementary-grades administrators, and most professors of reading.[19]

In my experience, knowledge-building through LETRS is more likely to result in student improvement if it is supported with in-class coaching, training for school leadership, alignment of instructional materials, and assessments that enable teachers to differentiate instruction. It is very frustrating for teachers to participate in LETRS if these supports are not provided by a school or district, and certainly the impact of the training will be diluted if teachers are left on their own to do the best they can with materials that are not based on the science of reading.

A lesson we have learned many times over is that schools with low-performing students can "beat the odds" when instruction aligned with scientific research is consistently delivered and supported.[20‡] Although it has taken decades for many textbook publishers, college faculty members, and organizations to embrace reading science, we are optimistic that, finally, our collective efforts may be paying off. □

For the endnotes, see aft.org/ae/spring2023/moats.

‡For more on teaching struggling readers, see "Identifying and Teaching Students with Significant Reading Problems" in the Winter 2020–21 issue of *American Educator*: aft.org/ae/winter2020-2021/vaughn_fletcher.

During small-group instruction, students build consonant-vowel-consonant (CVC) words.