



# The Need for Research-Based Literacy Professional Development

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What Research Says about the Need for Impactful Literacy  
Professional Development, and How **LETRS** Meets the Challenge

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# Introduction

Teachers matter more to student success than any other aspect of schooling. They, not programs, teach students how to read. In fact, the National Reading Panel Report determined that explicit training for new and experienced teachers improves overall student outcomes. Yet, a study of teacher-training institutions found that many do not require coursework in all five essential components of reading instruction determined by the National Reading Panel.

With the latest NAEP Reading Report Card showing that 63 percent of fourth grade students are not performing at proficient reading levels, teachers need access to deeper knowledge, skills, and practice to successfully prevent and address reading difficulties.

This guide focuses on the need for professional development that fills gaps in teacher preparation and translates the extensive body of research about language and literacy development into effective classroom practice.

# The Science of Teaching and Learning to Read

School leaders across the United States face a critical literacy challenge—preservice teacher education has largely been inadequate to prepare teachers to deliver effective literacy instruction. The National Reading Panel (NRP) report and subsequent research have established a solid evidence base for essential components of reading instruction. However, survey research indicates that classroom teachers are not receiving sufficient preservice preparation in order to implement the NRP’s research-based recommendations regarding the science of teaching and learning to read (Joshi, Binks, Hougren, Dahlgren, Ocker-Dean, & Smith, 2009; National Institutes of Child Health and Human Development, 2000; Walsh, Glaser, & Wilcox, 2006).

In their meta-analysis of research on the teaching of reading, the NRP determined that the components of effective reading instruction include explicit, systematic teaching of phonemic awareness and phonics, guided oral reading to improve fluency, direct and indirect vocabulary building, and exposure to a variety of comprehension strategies. . . . Finally, and importantly, the panel [noted] that explicit preparation in reading for “both new and established teachers” had been shown to produce higher student achievement. (Walsh et al., 2006, p. 8; also see National Institutes of Child Health and Human Development [NICHD], 2000)

## Research Studies

Subsequent research has further supported the case for the science of reading as the foundation for teaching reading (e.g., Walsh et al., 2006, citing Rayner, Foorman, Perfetti, Pestscky, & Seidenberg, 2001). Unfortunately, the findings from this research are not reflected in the typical teacher preservice education curriculum.

For example, Walsh et al. (2006) initiated an investigation into the knowledge that preservice teachers were receiving (or not receiving) relative to the findings of the National Reading Panel, based on an earlier study by Steiner and Rozen (2004). The Walsh team analyzed each course from a representative sample of 72 higher education institutions to determine what preservice teachers were learning in their required reading courses and the extent to which the NRP’s five components of reading were included in the courses. Only 15% (11 out of 72 institutions) taught all of the components of reading (Walsh, 2006, p. 22). Furthermore, review of the most frequently used textbooks found “mistakes and misrepresentations of the reading process” (p. 38).

In 2009, another research team conducted their own survey of 78 college and university professors who taught reading education classes to preservice reading teachers. They wanted to understand how knowledgeable higher education instructors were in the science of reading (Joshi et al., 2009, p. 395). One of the key findings of their research was that only 54% of the college and university instructors correctly recognized the definition of phonemic awareness (p. 37). Mean percentages of assessment items answered correctly by the reading instructors by category include: phonology: 79%; phonics: 56%; morphology: 34%; and comprehension: 58% (p. 396).<sup>1</sup>

## The Team’s Findings

The Joshi team determined that while evidence-based reading practices are available, many classroom teachers have not received adequate preservice or in-service professional development to apply the knowledge. The results of the study also indicated that “instructors at many teacher training institutions may. . . not be knowledgeable about the basic linguistic constructs needed for literacy development” (Joshi et al., 2009, p. 400).

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<sup>1</sup> The data are rounded to the nearest percent.

# The Need for Deep Teacher Knowledge of Language

To be effective teachers of literacy, teachers must be knowledgeable about the structure of oral and written language, language and literacy skill development, and related pedagogy. Yet most teachers lack the academic preparation necessary to support their students' language and literacy development. The fact that preservice teachers are not receiving adequate instruction in the science of reading points to the need for robust professional development for in-service teachers.

Teachers of reading must be teachers of language, according to Moats (2010). In her research-based textbook on literacy instruction, Moats concludes that, to be effective teachers of literacy, they must be knowledgeable about the structure of oral and written language, how literacy is acquired, and related pedagogy (2010, p. 2, citing Brady & Moats, 1997; Moats, 1999; Moats & Lyon, 1996; Snow, Griffin & Burns, 2005). She maintains that reading teachers must study the systems and forms of language—both oral and written—so they are prepared to incorporate critical language skills into direct, systematic, and sequenced lessons (pp. 8, 15). More specifically, Moats asserts that teachers need expertise to deliver direct teaching of “phonological skills, sound-symbol correspondence (phonics), fluent word recognition and text reading, vocabulary, text comprehension, and literature appreciation” (Moats, 2010, p. 17).

In their research review, Cunningham and her colleagues similarly found a “growing consensus” that elementary school teachers of reading “must understand the theoretical and empirical underpinnings of reading development.” (Cunningham, Zibulsky, and Callahan, 2009, citing multiple research studies). Cunningham et al. point to the vital role that word recognition skills play in early reading acquisition and development—“how phonological awareness and the alphabetic principle are at the very foundation of learning to decode accurately and, later, how phonologic, orthographic, syntactic, and semantic knowledge lead to automatic and fluent reading which, in turn, leads to making meaning from text,” (p. 491). Cunningham warns that just recognizing the key role that language, text structure, and vocabulary development play in word recognition and comprehension is not enough. Elementary teachers also need a “wide range of [associated literacy] content knowledge in order to effectively scaffold students' reading development” (pp. 491-492).

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# The Importance of **Expertise** in Teaching a Broad Range of Reading Skills

## **Phonological awareness and phonics**

Both phonological awareness and phonics are essential for reading acquisition (Cunningham et. al., 2009, p. 499, citing Dickinson & Tabors, 2001; NICHD, 2000). Thus, as Moats noted above, teachers need specific expertise in order to deliver direct teaching of phonological skills, phonics, [and] fluent word recognition. (Moats, 2010, p. 17). More explicit level of teacher knowledge is needed to “explain pronunciation and spelling, where the words came from, and how spelling is related to meaning” (p. 9).

## **Morphology**

It is also important for teachers to understand morphology—knowledge of the smallest significant units of words, such as prefixes, suffixes, roots, and inflections. Since the same root morphemes are found in multiple words, learning a morpheme in one word can open the meaning to many new words that contain that morpheme (Oakhill, Cain, & Elbro, 2014, p. 66). In a review of 22 studies, Bowers, Kirby, and Deacon (2010) found that teaching morphology to children had significant effects on the development of both vocabulary and reading comprehension. Such effects were enhanced if teaching did not just focus on the analysis of single words but was combined with comprehension instruction (Oakhill et. al., 2014, p. 66).

## **Vocabulary development**

In their overview of research on reading comprehension, Oakhill, Cain, and Elbro (2014) found that vocabulary development is critical to reading comprehension, and they advised that it be taught both directly and indirectly (p. 67; also see Walsh et. al., 2006, and NICHD, 2000). Oakhill et al. (2014) note that direct vocabulary instruction is needed to pre-teach key words and terms that are likely to be unknown to readers of a text. Indirect vocabulary development focuses on enhancing “the reader’s ability to infer and refine word meanings from a text” (Oakhill et al., 2014, p. 67). In teaching vocabulary, Oakhill et al. recommend aiming for “deeper levels of vocabulary knowledge... [which] means that children should not just learn word definitions, but also how unfamiliar words relate to other words” (Oakhill et. al., p. 65).

## **Comprehension**

As noted previously, the National Reading Panel found that “exposure to a variety of comprehension strategies” was key to effective reading instruction (Walsh et. al., 2006, p. 8; also see NICHD, 2000). According to Oakhill et. al.’s (2014) research review, there are many aspects of language in text that should be taught explicitly in order to support reading to learn—such as how syntax and meaning are related and how text is organized and structured. These researchers affirm that educators can teach children how to derive meaning from context by searching the text for clues about meaning.



# Addressing Reading Difficulties

## **Skillful teaching can prevent most reading problems.**

According to the findings of numerous studies, “classroom instruction that builds phoneme awareness, phonic decoding skills, text reading fluency, vocabulary and various aspects of comprehension is the best antidote for reading difficulty” (Moats, 2010, p. 15, citing multiple sources). Multiple researchers have found that “explicit teaching of oral and written language remains the core principle of effective instruction for both novice and struggling readers” (Moats, 2010, p. 2, citing Aaron, Joshi, & Quatroche, 2008).

These findings suggest that teachers who work to strengthen students’ areas of weakness are most likely to help their students improve (Moats, 2010, p. 16). It also suggests the importance of using diagnostic assessment to identify students’ areas of weakness.

Like most students, readers with dyslexia or dyslexia-like tendencies also benefit from direct, explicit systematic, and intensive instruction (Washburn, Joshi, & Binks-Cantrell, 2011, p. 167, citing Torgesen, 2002; Vellutino et al., 1996). Washburn et al. found that “students who had teachers who were both knowledgeable and devoted more time to explicit decoding instruction made significantly higher gains in word reading” (p. 168). Similarly, Piasta et al. (2009) provided evidence that the “teachers who are most effective with struggling readers have both content knowledge and practical skill and are more inclined to use direct systematic, explicit, structured language methods for those who do not learn easily” (Moats, 2010, p. 16, citing Piasta, Connor, Fishman, & Morrison, 2009). Unfortunately, Washburn et al.’s (2011) review of the research led to the conclusion that teachers do not have the knowledge they need to work with struggling readers, particularly children with dyslexia (p. 177).



# How **LETRS** Develops Deep Teacher Knowledge of Language

**LETRS**®—*Language Essentials for Teachers of Reading and Spelling*—provides the professional development teachers need to acquire deep knowledge of language and literacy development, in order to be effective in helping students become highly capable readers.

**LETRS** provides a systematic process to educate teachers about the science of reading, the development of oral and written language, and how to incorporate knowledge of language into effective reading instruction—knowledge that teachers do not receive during preservice education. Throughout the **LETRS** course of study, teachers are exposed to evidence-based research on reading and explore systems of oral and written language that are critical to literacy development:

- Phonology
- Orthography
- Morphology
- Semantics
- Syntax
- Discourse
- Pragmatics

The following chart defines and provides examples of these important systems of language.

System of Language: Definitions and Examples		
LANGUAGE SYSTEM	DEFINITION	EXAMPLES
Phonology	The rule system within a language by which phonemes can be sequenced, combined, and pronounced to make words	No English word begins with the sound /ng/; the sounds /p/ and /k/ are never adjacent in the same syllable.
Orthography	A writing system for representing language	Every English word ending in /v/ is spelled with -ve, the letter x is never doubled.
Morphology	The study of meaningful units in a language and how the units are combined in word formation	<i>Nat-</i> is a root. <i>Nature</i> is a noun; <i>natural</i> is an adjective; <i>naturalist</i> is a noun; <i>naturally</i> is an adverb.
Semantics	The study of word and phrase meanings and relationships	The word <i>rank</i> has multiple meanings. The words <i>order</i> and <i>sequence</i> have similar meanings.
Syntax	The system of rules governing permissible word order in sentences	"Our district recruits new teachers" is a sentence; "New teachers our district recruits" is not a sentence.
Discourse	Written or spoken communication or the exchange of information and ideas, usually longer than a sentence, between individuals or between writer and reader	Discourse includes paragraph structure, cohesive ties, and genre conventions such as story structure.
Pragmatics	The system of rules and conventions for using language and related gestures in a social context	To one person I say, "That is my seat!" To another, I say, "Excuse me, my ticket has that seat number."

One of the fundamental ideas in **LETRS** is that language processing underlies reading and writing, and students' difficulties with reading and writing are most effectively addressed if the structures and functions of language are taught directly.



# A Comprehensive Course of Study

**LETRS** is a comprehensive course of study that helps translate the body of language and literacy research into effective classroom practice. It covers the five essential components of reading as recommended by the National Reading Panel: phonemic awareness, phonics, vocabulary, reading fluency, and reading comprehension. In addition, **LETRS** addresses oral language, spelling, and writing; helps teachers understand how language, reading, and writing are related to each other; and presents the strategies that are most helpful in improving reading outcomes.

## In **LETRS** Unit 1, teachers learn:

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- What the brain does while reading
- The many skills that are gradually integrated while learning to read
- The relationship between learning to read and learning to spell
- Major types of reading difficulties
- The role of assessment in prevention of reading difficulties, early intervention, and differentiating instruction

## In Unit 2, **LETRS** targets children's development of phonological skills:

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- The role and importance of phonological processing and development and phonemic awareness in reading
- How to teach and assess phonological skills

## Unit 3 focuses on teaching beginning phonics, word recognition, and spelling, including:

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- The importance of phonic code-emphasis instruction
- English orthography and phonics
- How to begin teaching phonics and word recognition
- Effective word practice routines
- The relationship between reading and spelling, and how to teach spelling
- Use of decodable texts

## In Unit 4, teachers expand their knowledge of phonics, word study, and spelling, including:

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- Why and how to teach syllable patterns
- When and how to teach morphology
- The meaning of reading fluency and how to build fluency

## In Unit 5, teachers explore the domain of vocabulary development:

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- The importance of vocabulary development for oral language proficiency and reading comprehension
- Effective vocabulary instruction and practice
- How to foster independent word-learning strategies in a language-rich classroom

## In later units, **LETRS** focuses on reading comprehension and writing, including:

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- The importance of constructing a mental model while reading
- Preparing students for reading
- The role of syntax and sentence structure
- The role of cohesive devices
- The role of text structure
- Effective comprehension strategy instruction
- The reading-writing connection: foundational writing skills and using writing to support reading comprehension

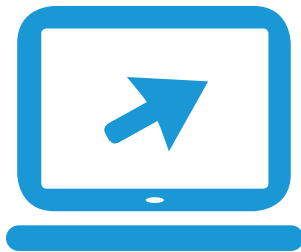
# Where Research Meets Practice

Despite strong research evidence pointing to the most effective methods of teaching reading, most new teachers are not equipped with sufficient knowledge to put evidence-based reading strategies into practice. Preservice teachers rarely receive this kind of instruction in their college experience, and practicing teachers rarely receive systematic, comprehensive in-service professional development on language and literacy. It is essential that today's reading teachers have access to professional development that increases their content knowledge about the science of reading and enhances their understanding of effective strategies for teaching students how to read, write, and spell.

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**LETRS** was developed to meet this need—to help teachers of reading acquire the deep knowledge of language and literacy development they need for classroom success. It is a systematic, comprehensive course of study based on more than 30 years of reading research to help teachers become effective in developing student literacy. The **LETRS** curriculum addresses the five areas essential to successful reading instruction identified by The National Reading Panel—phonemic awareness, phonics, vocabulary, reading fluency, and comprehension—plus oral language, spelling, and writing. The program not only provides teachers with a deeper understanding of what causes reading difficulties, but how to overcome them.

**LETRS** has been designed to fill a gap in teacher knowledge that can have a dramatic impact on literacy success for our students. It incorporates successful teaching and learning strategies that are evidence-based and have proven themselves over time.



For more information, visit:  
<https://www.voyagersopris.com/professional-development/leters/try-it>

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