

# **The Science Behind the “Next Steps” Guided Reading Framework**

**By Jan Richardson, Ph.D.**

## **Introduction**

Scientific research has yielded several models that attempt to simplify and explain the complexity of the reading process. This paper will review the primary reading processing models and explain how the components of the Next Steps Guided Reading Lesson Framework support the valid science behind these models.

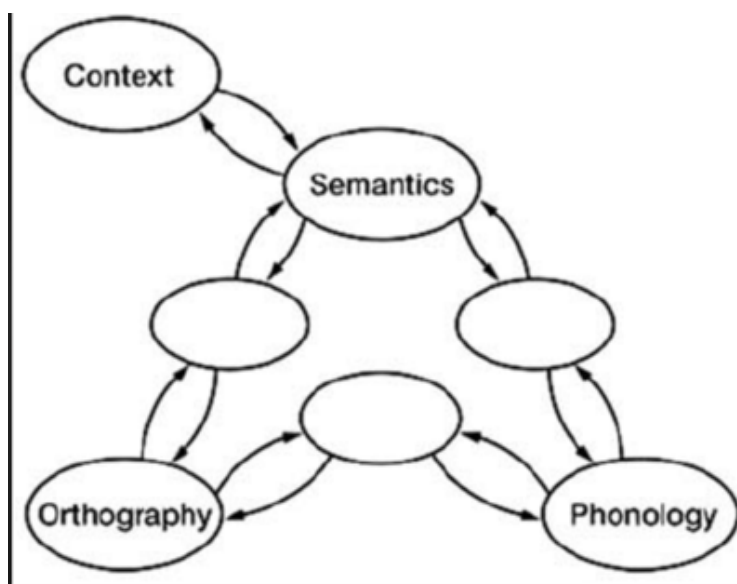
## **What is the Next Steps Guided Reading Framework?**

The Next Steps Guided Reading framework is a research-based, comprehensive, small group lesson design that provides explicit and systematic reading instruction (Richardson, 2009, 2016). The lesson plans provide targeted, differentiated instruction in phonemic awareness, alphabetics, phonics, decoding, fluency, vocabulary, comprehension, and writing—all critical elements in a science-based reading program.

## **Scientific Models of the Reading Process**

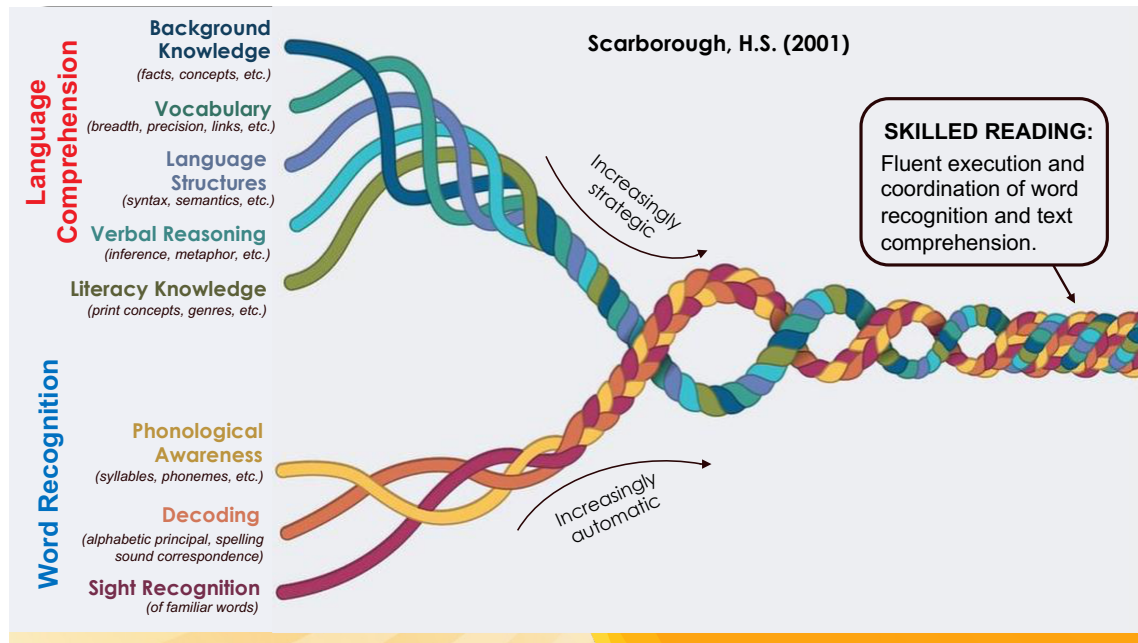
Reading is a complex process of constructing meaning from print. “In reading, we have numerous theories because it is a complex behavior, the product of multiple skills and capacities because reading is not a uniform activity but rather varies depending on purpose, skill, type of materials, and context, and because it can be viewed from multiple intersecting perspectives (e.g., biological, behavioral, social, developmental, cross-cultural)” (Seidenberg, 2020, p.23 ). The most widely accepted scientific models of the reading process are the Reading Triangle (Seidenberg & McClelland, 1989), the Reading Rope (Scarborough, 2001), and the Literacy Processing Theory (Clay, 1991, 2001, 2005). The following is a brief overview of the similarities and differences among these theories.

**The Reading Triangle** (Seidenberg and McClelland, 1989) – The Reading Triangle model represents the work of Dr. Mark Seidenberg, a psychologist and professor at the University of Wisconsin-Madison a senior scientist at Haskins Laboratories, New Haven, Connecticut. The triangle illustrates how three cognitive facilities form a network of phonology (sounds), semantics (meaning) and orthography (spelling). “There is more to reading,” says Seidenberg, “than computing the meanings and pronunciations of isolated words” (p. 147). As the following diagram indicates, readers must also use the context to decode and comprehend.



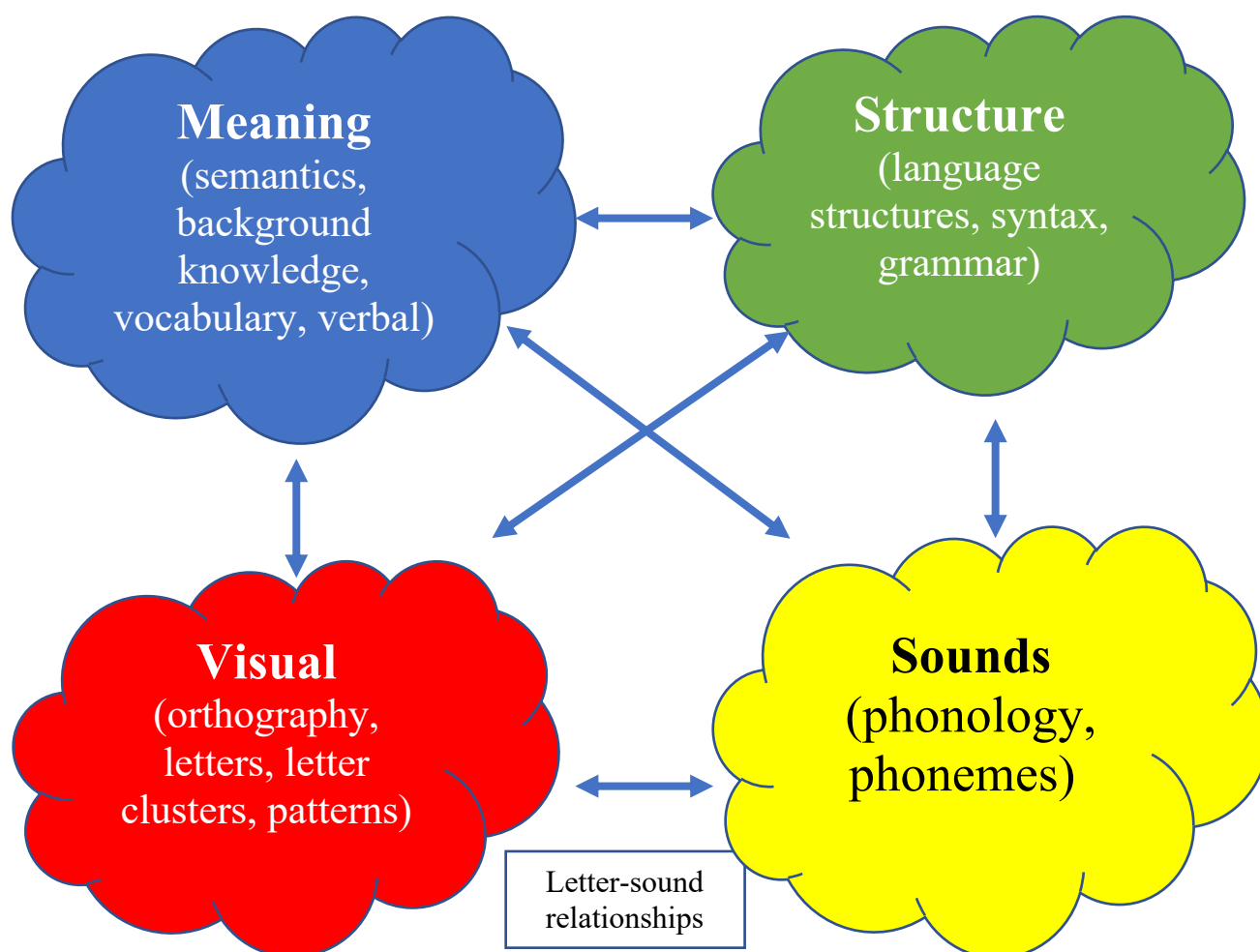
Reading Triangle. (Seidenberg & McClelland 1989)

**Reading Rope** (Scarborough, 2001) – The Reading Rope was created by Dr. Hollis Scarborough, a psychologist and a senior scientist at Haskins Laboratories. Scarborough’s Reading Rope expands upon the “simple view of reading” developed by Gough and Tunmer (1986) and illustrates the complexity of learning to read. According to Scarborough, beginning readers use their background knowledge, vocabulary, language structures, verbal reasoning and literacy knowledge to build language comprehension. When readers develop phonological awareness, decoding skills and sight recognition, they build a system for recognizing words. As they become increasingly strategic in language comprehension and more automatic with word recognition, they develop into skilled readers.



Reading Rope. (Scarborough 2001)

**Literacy Processing Theory** (Clay, 2001, 2005) - Dr. Marie Clay, a child psychologist and founder of Reading Recovery®, studied children in their earliest stages of reading acquisition. Clay (2001) defined reading as “a message-getting, problem-solving activity, which increases in power and flexibility the more it is practiced” (p. 1). Her Literacy Processing Theory depicts a network of complex neural processing systems readers use when reading continuous text. The following infographic illustrates four types of information young readers must use during the reading process: Meaning, which is their background knowledge, vocabulary, and verbal reasoning; Structure, which includes language syntax and the grammar that governs it, Phonology, which involves hearing units of sounds such as syllables and phonemes; and Visual information, which includes letters, letter clusters, orthographic patterns, and automatic recognition of high-frequency words. According to Clay (2005) the ultimate goal in literacy processing is the interaction and integration of these four information systems.



### Literacy Processing Theory (Clay, 2005)

These three models employ different approaches but similar terms to simplify the complexities of the reading process. Each is science-based and includes hearing the sounds of language (phonology, phonological awareness) and decoding visual information in print (orthography, word recognition). Most important, each model stresses understanding the message (meaning, semantics, language comprehension). Although hearing the sounds of language and decoding visual information are important elements in learning to read, the heart and soul of reading is comprehension. Without comprehension, there is no reading.

## What is Guided Reading?

Researcher Anita laquinta describes guided reading as one of the “most important contemporary reading instructional practices in the United States” (Fawson & Reutzel, 2000). Informed by 40 years of research drawing from cognitive science and linguistic principles, guided reading supports all readers, including striving, advanced and English learners (Pearson 2019, Scharer 2019, Clay 2001, 2005, Fountas & Pinnell 2017). The small-group guided reading model allows teachers to target specific learning needs, provide appropriate scaffolding, and gradually reduce support to promote independence.

The primary features of the Next Steps Guided Reading Framework are small, flexible groups, challenging text, and responsive feedback. Each is backed by scientific research that verifies guided reading’s positive effects on student learning and reading proficiency.

*Small flexible groups.* Guided reading utilizes small groups, which allows teachers to more easily target the individual needs of students. Teachers regroup students as their needs change. The Center for the Improvement of Early Reading Achievement (CIERA) studied the practices of accomplished teachers who were helping striving readers beat the odds and achieve. They discovered that “time spent in small-group instruction for reading distinguished the most effective schools from the other schools in the study” (Taylor, 2000).

*Challenging texts.* During guided reading children should read texts that are appropriately calibrated to their needs. Research has shown that there is a “sweet spot” for learning—the task should not be too easy or too hard. As students read, errors are “expected and celebrated because they are opportunities for learning” (Fisher, Frey, and Hattie, 2016, p. 31). Tomlinson (2005) noted, “Our best understanding suggests that a student only learns when work is moderately challenging that student, and where there is assistance to help the student master what initially seems out of reach” (p. 22).

*Responsive Feedback.* During each guided reading lesson, teachers listen to and prompt students as they read. The small-group context provides opportunities for teachers to observe individual students and make in-the-moment instructional decisions that help move that student’s learning forward. “When students are engaged in appropriately challenging tasks, they are more likely to

respond to feedback because they need that information to continue growing and learning” (Fisher, Frey, & Hattie, 2016, p. 23).

### **Guided Reading and Reading Research**

In 1997, Congress convened a National Reading Panel (National Institute of Child Health and Development [NICHD] 2000) to assess the status of research-based knowledge related to the various approaches to teaching children to read. The panel’s analysis of reading research concluded that the best approach to reading instruction is one that incorporates what they described as the Five Pillars of Reading:

- Phonemic awareness – the ability to hear, recognize, and manipulate sounds
- Phonics – matching sounds to letters and letter patterns
- Vocabulary – understanding the meaning of words
- Fluency – the ability to read accurately and expressively
- Comprehension – the ability to understand and retain important information to create meaning from text

The following chart demonstrates how the instructional components in the Next Steps Guided Reading lesson addresses each of the Five Pillars of Reading (National Reading Panel, 2000).

Correlation of Next Steps Lesson Components and the Pillars of Reading

Lesson Component	Description	Pillar of Reading
Read and Discuss a New Book	After a brief introduction, students read and discuss a challenging book with the teacher’s feedback and support.	Phonics Fluency Vocabulary Comprehension
Reread Familiar Books	Students reread books to build reading accuracy and fluency. The reading is followed by a group discussion that delves into deeper levels of comprehension and vocabulary.	Phonics Fluency Comprehension Vocabulary
Learn Sight Words	Students use multisensory activities	Phonics

	to gain automaticity with reading and writing high frequency words.	Fluency
Word Study	Students receive explicit, systematic instruction in phonemic awareness, phonics, spelling, vocabulary, and morphology.	Phonemic awareness Phonics Vocabulary
Guided Writing	Students extend their comprehension by writing about the book. They are encouraged to include the new vocabulary from the book in their writing.	Phonemic awareness Phonics Vocabulary Comprehension

### **Guided Reading and the Science of Reading**

The Science of Reading is a theory derived from research by psychologists, neuroscientists, linguists, and educators. It is not a reading program or a specific component of instruction (such as phonics). Nor is it a one-size-fits-all curriculum (<http://whatisthescienceofreading.org>).

The Next Steps guided reading lesson framework orchestrates the complexities of skilled reading that align with the Science of Reading. Each of the elements in Scarborough's Reading Rope (2001) is systematically and explicitly taught during a small group lesson. Dr. Scarborough has a close relationship with the International Dyslexia Association, and her Reading Rope is often used by the Science of Reading proponents.

### **The Science of Reading at Work in Guided Reading**

<b>Scarborough's Elements (2001)</b>	<b>Next Steps Guided Reading</b>
<b>Background knowledge</b>	Teachers should select culturally relevant texts across a variety of topics, text structures, and genres. As students read and discuss the book, they expand their knowledge of the world and increase their understanding of

	academic concepts.
<b>Vocabulary</b>	Teachers should use texts that increase in complexity and expose students to challenging vocabulary and new concepts. The new words are explicitly taught during the book introduction, and vocabulary strategies are modeled and practiced during the reading of the book.
<b>Language Structures</b>	During reading, students are prompted to use syntax (language structures and grammar) along with meaning and visual information (letters, letter clusters and word parts) to problem-solve unfamiliar words.
<b>Verbal Reasoning</b>	Students are taught to monitor their comprehension and intentionally apply a variety of comprehension strategies when meaning breaks down. After reading, the teacher guides students in discussions that explore literal and inferential meanings about texts. (See Appendix A for a complete listing of the comprehension strategies described in <i>The Next Step Forward in Guided Reading</i> (Richardson, 2016).
<b>Literacy Knowledge</b>	Nascent readers learn print conventions such as directionality, the concept of a letter and word, punctuation, and capitalization. They also learn that the print and the illustration communicate the author's message. Students are exposed to a variety of topics and genres.
<b>Phonological Awareness</b>	During the word study component, children use manipulatives such as picture sorting cards, magnetic letters, ABC charts, and sound boxes to isolate, segment, manipulate, and blend sounds.
<b>Decoding</b>	Decoding, the process of using phonics to problem-solve unfamiliar words, is explicitly taught during the reading of the book. To facilitate rapid word solving, children are taught to break words in useful and flexible ways (Kay, 2006). During word study, students learn letter-sound relationships, spelling patterns, and orthographic mapping. They also learn to generalize spelling rules and patterns to other similar words. There is a scope and sequence for teaching phonics in Appendix B.
<b>Sight Recognition</b>	High frequency words are explicitly taught during the word study component. Children are then expected to transfer their knowledge of these words during reading and writing.



## **Other Literacy Skills Taught during Next Steps Lessons**

In addition to Scarborough's eight elements of the Reading Rope (Scarborough, 2001), Next Steps lessons teach the following important literacy skills:

*Fluency.* Repeated reading is embedded in the lesson framework. Research shows that rereading text improves word accuracy, fluency and comprehension (LaBerge and Samuels, 1976; Rasinski, 2012). Students are also encouraged to reread the books at home with a parent or caregiver.

*Writing.* Extensive research has revealed positive effects for integrating reading and writing (Lehr, 1981, Clay, 2001). The complexities of reading merge during Guided Writing as children use phonics, orthography, language structures, and newly learned vocabulary to write about the text.

## **Closing thoughts**

The Next Steps Guided Reading is a research-based framework designed to support teachers as they help children become better readers. In addition to being research-based, the strongest argument for Next Steps Guided Reading is that it facilitates balanced learning (reading, writing, phonics). Teaching phonics and words in isolation won't automatically transfer to authentic reading and writing. As phonics expert Wiley Blevins (2019) stated, "Students progress at a much faster rate in phonics when the bulk of instructional time is spent on applying the skills to authentic reading and writing experiences, rather than isolated skill-and-drill work" (page 6). He recommends that at least half of phonics instruction should be applying the skills to authentic reading and writing. The Next Steps Guided Reading framework teaches phonics and spelling and provides for an engaging, purposeful transfer of those skills to reading and writing. Phonics and word study activities are part of the daily lessons. The goal of guided reading is simple: Help all students become proficient readers who just can't wait to read another book!

## Appendix A: Comprehension Strategies Taught in Next Steps Guided Reading

<b>Comprehension Focus</b>	<b>The reader ..</b>
<b>Comprehension Monitoring</b>	is aware when meaning breaks down and applies strategies to improve understanding.
<b>Retelling</b>	<ul style="list-style-type: none"> <li>• recalls information in nonfiction.</li> <li>• retells important events in sequence and describes story elements.</li> </ul>
<b>Developing Vocabulary</b>	uses a variety of strategies to understand the meaning of unfamiliar words or phrases.
<b>Asking and Answering Questions</b>	asks and answers literal and inferential questions.
<b>Identifying Main Idea and Details</b>	is able to identify the main idea and most important details.
<b>Analyzing Characters</b>	uses text clues to identify character feelings, traits, and motives.
<b>Analyzing Relationships</b>	understands the relationships between people, events, or ideas (e.g., cause-effect, compare and contrast).
<b>Inferring</b>	makes an inference or draws a conclusion from details in the text.
<b>Summarizing</b>	synthesizes important information and prepares a summary that covers the main points.
<b>Evaluating</b>	understands the theme, author's purpose, point of view, and fact versus opinion.
<b>Using Text Features</b>	uses the Table of Contents, glossary, index, headings, illustrations, diagrams, etc., to clarify and extend understanding.
<b>Understanding Text Structure</b>	understands how the author organizes the information within the text: description, problem/solution, cause-effect, compare and contrast, and time order/sequence.
<b>Strategies for Test Taking</b>	understands how to read a test passage and apply strategies for answering multiple-choice questions.

Richardson, J. (2016)

## Appendix B: Guided Reading Scope and Sequence for Teaching Phonics

Word Study Skills by Text Level and Reading Stage				
Text Level	Reading Stage	Skill Focus		
<b>A</b>	<b>Emergent</b>	• Initial consonants	• Long vowels	
<b>B</b>		• Initial and final consonants	• Short a and o	
<b>C</b>		• All short vowels	• CVC words	
<b>D</b>	<b>Early</b>	• Digraphs	• Onset-rime	
<b>E</b>		• Initial blends	• Onset-rime	
<b>F</b>		• Final blends	• Onset-rime	
<b>G</b>		• Initial and final blends	• Silent e	• Onset-rime
<b>H</b>		• Silent e	• Vowel patterns	• Inflectional endings
<b>I</b>		• Silent e	• Vowel patterns	• Inflectional endings
<b>J–K</b>	<b>Transitional</b>	• Silent e • Vowel patterns • <i>r</i> -controlled vowels	• Inflectional endings with spelling changes	• Compound words
<b>L–M</b>		• Vowel patterns • <i>r</i> -controlled vowels	• Inflectional endings with spelling changes • Compound words	• Prefixes • Suffixes
<b>N–P</b>		• Vowel patterns	• Inflectional endings with spelling changes	• Prefixes • Suffixes
<b>Q–Z</b>	<b>Fluent</b>	• Affixes and roots		

Richardson, J. and Dufresne, M. (2018)

## References

- Clay, M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.
- Clay, M.M. (2001). *Change over time in children's literacy development*. Portsmouth, NH: Heinemann.
- Clay, M.M. (2005). *Literacy lessons designed for individuals: Part two: teaching procedures*. Portsmouth, NH: Heinemann.
- Developing early literacy: Report of the National Early Literacy Panel*. (2008). Retrieved from <http://lincs.ed.gov/publications/pdf/NELPReport09.pdf>
- Ford, M., & Opitz, M. (2011).
- Fisher, D., Frey, N., and Hattie, J. (2016). *Visible Learning for Literacy: Implementing the practices that work best to accelerate student learning*. Thousand Oaks, CA: Corwin.
- Fawson, P. and Reutzel, R. (2000). But I only have the basal: Implementing guided reading in the early grades. *The reading teacher*, 54 (1), 84-97.
- Fountas, I. and Pinnell, G. S. (2017). *Guided Reading: Responsive Teaching across the Grades*. New York, NY: Scholastic.
- Gough, P. and Tunmer, W. (1986). Decoding, reading, and reading disability. *Remedial and special education*, 7, 6-10.
- Iaquinta, A. (2006). Guided reading: A research-based response to the challenges of early reading instruction. *Early Childhood Education Journal*, 33(6), 413-418.
- Kay, E. (2006), Second Grade Reading Behaviors: A Study of Variety, Complexity, and Change, *Literacy Teaching and Learning*. 10 (2), 51-75.
- LaBerge, D. and Samuels, S.A. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6, 293-323.
- Rasinski, T. (2012). Why reading fluency should be hot! *The Reading Teacher*, 65:8, 516-522.
- Report of the National Reading Panel. (2006, August 31). Retrieved from <https://www.nichd.nih.gov/publications/pubs/nrp/Pages/findings.aspx>
- Richardson, J. (2009). *The next step in guided reading: Focused assessments and targeted lessons for helping every student become a better reader*. New York, NY: Scholastic.
- Richardson, J. (2016). *The next step forward in guided reading: An assess-decide-guide framework for supporting every reader*. New York, NY: Scholastic.

Richardson J. and Dufresne, M.(2018). *The Next Step Forward in Word Study and Phonics. Reading*. New York, NY: Scholastic.

Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97–110). New York, NY: Guilford Press.

Seidenberg, M. S., Borkenhagen, M.C., and Kearns, D. M. (2020). Lost in translation? Challenges in connecting reading science and educational practice, *Reading Research Quarterly* 55, S1:S119-S130.

Seidenberg, M. (2017). *Language at the speed of sight: How we read, why so many can't, and what can be done about it*. New York, NY: Basic Books.

Taylor, B. M., Pearson, P. D., Clark, K., and Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low- income schools. *Elementary School Journal*, Vol. 101, pp. 121–165.

Wiley, Blevins (2019). *Meeting the Challenges of Early Literacy Instruction*. International Literacy Association Literacy Leadership Brief.