



TEACHING THE FOUNDATIONS:

Best Practices for Emergent Readers

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Introduction

According to the United States Department of Education (2002), instructional programs and materials used by a state educational agency or school district must focus on the five key areas that scientifically based reading research has identified as essential components of reading instruction: phonics, phonemic awareness, fluency, vocabulary, and reading comprehension. Two other critical foundational skills—alphabetic knowledge and high-frequency words—have been identified by Adams (1990) and Fry, Kress, and Fountoukidis (2000). Together, these seven key areas are critical for students to master so they can read to learn or read for pleasure. Learning A–Z’s reading resources are informed by the best practices identified in research on teaching foundational skills. Our resources guide students in building and practicing these foundational skills so they are prepared for more advanced skills as they advance through grade levels.

I. Alphabetic Knowledge

Alphabet instruction involves teaching naming, recognition, and formation of the 26 uppercase and lowercase letter symbols in the English language. Letter recognition is one of the strongest predictors of early reading success (Adams, 1990; Schatschneider, Fletcher, Francis, Carson, & Foorman, 2004). Research on alphabetic knowledge, including knowledge of letter names and sounds, has shown strong positive correlations with later decoding, reading comprehension, and spelling skills (Hammill, 2004; National Early Literacy Panel, 2008; Shanahan & Lonigan, 2010). Although research investigating causal relations between alphabetic knowledge and other early literacy skills has been inconclusive, studies on letter naming instruction have shown a small but significant impact on knowledge of letter sounds (Piasta & Wagner, 2010).

Instruction and practice are especially important for students who do not enter preschool or kindergarten with fluent letter recognition skills. Research has found that using letter/keyword/picture displays when introducing letters and that incorporating writing or printing into letter instruction are effective ways to help students develop letter recognition (Adams, 1990). In addition, research supports frequent, targeted practice of letter names and sounds (Jones & Reutzel, 2012; Reutzel, 2015) and has shown that instruction in letter names and sounds may be enhanced when combined with phonological instruction (National Early Literacy Panel, 2008; Piasta & Wagner, 2010).

Learning A–Z Resources that Support Instruction in Alphabetic Knowledge

Raz-Plus and Reading A–Z

- **Alphabet Books** introduce each letter of the alphabet in uppercase and lowercase and pair the letter with names and pictures of objects that begin with that letter.
- **Alphabet Flashcards** support practice in fluently naming and recognizing letters.
- **Alphabet Chants** are alliterative rhymes that highlight words beginning with a letter of the alphabet.
- **Letter Formation Practice Sheets** are ruled practice sheets for each letter of the alphabet that provide practice in uppercase and lowercase letter formation.
- **Alphabet Letter Naming Assessments** evaluate recognition of uppercase and lowercase letters.

II. Phonological Awareness

Phonological awareness focuses on the sounds of language rather than the symbols that represent sounds. Instruction in phonological awareness includes awareness of sound at the word, rhyme, syllable, and phoneme levels. It is one of the most important, if not the most important, early predictors of reading success (Schatschneider et al., 2004; Stanovich, 1996).

In particular, studies have shown that phonemic awareness—an aspect of phonological awareness that involves awareness and manipulation of phonemes—is one of the best predictors of how well children will learn to read and is an important component of early reading instruction (Melby-Lervåg, Lyster, & Hulme, 2012). A meta-analysis of 52 published studies found that instruction in phonemic awareness had a significant effect on both reading and spelling (Erhi et al., 2001; National Institute of Child Health and Human Development, 2000). This effect remains over time: studies on the long-term impacts of instruction in early reading skills have shown that instruction in phonemic awareness has long-term positive effects on prereading, reading, comprehension, and spelling skills (Suggate, 2016).

Effective teaching strategies for phonemic awareness include teaching students to identify a particular sound in a word; recognize the same sound in different words; recognize one word that begins or ends with a different sound from a group of three or four words; segment and blend the sounds in a word; and manipulate sounds in a word through substitution, addition, and deletion (NICHD, 2000).

Phonemic Awareness Skills for Effective Reading Instruction	
Skill	Definition
Isolation	recognizing individual phonemes in words
Identification	recognizing the same phoneme in multiple words
Categorization	identifying a word with odd (different) phonemes in three- to four-word sequences
Blending	listening to a sequence of separated phonemes and blending them together to form a word
Segmentation	breaking words into phonemes
Manipulation	adding, deleting, or substituting phonemes to create new words

Learning A–Z Resources that Support Phonological Awareness

Raz-Plus and Reading A–Z

- **Phonological Awareness Lessons** teach students to notice, differentiate, think about, and manipulate sounds and provide explicit instruction on word awareness, onset and rime awareness, rhyme awareness, syllable awareness, and phonemic awareness. In these lessons, students:
 - Identify and produce rhyme
 - Blend and segment syllables and onset and rime
 - Discriminate initial, final, and medial sounds
 - Blend and segment phonemes
 - Manipulate initial, final, and medial sounds
- **Read-Aloud Books** target specific sounds and build critical phonemic awareness skills. Alliteration with consonants or repetition of vowel sounds in each book provides opportunities for students to demonstrate listening for particular phonemes in the initial, medial, and final positions of words.

- **Phonological Awareness Assessments** can be used to evaluate students’ onset and rime, rhyme, syllable, and phonemic awareness skills. Phonemic awareness assessments include identifying initial, final and medial sounds in words as well as blending, segmenting, and manipulating phonemes.

Headsprout

- **Headsprout Early Reading** consists of 80 online lessons where students put sounds together, hear sounds slowly blended, say sounds slowly blended, hear the sounds said quickly together as whole words, and eventually say the words quickly themselves. Students learn that words can begin or end with the same sound and that words can be broken down into onsets and rimes. Students discover that some sounds can have other sounds inside them and that sound units can be combined to make new sounds. Students also segment single and multi-syllable real and nonsense words into separate sounds and blend multiple sounds to make real and nonsense words.

III. Phonics

Phonics is a natural follow-up to phonemic awareness instruction. Teaching children the graphemes (letters) associated with the phonemes (sound units) that they have learned enables children to decode printed words. The most effective instruction quickly moves students from awareness of a particular sound to an association of that sound with a letter symbol. When letter symbols are introduced, students can manipulate the sounds within words by using their knowledge of sound/symbol relations.

From a meta-analysis of 38 studies on reading, the National Reading Panel concluded that, as measured by students’ ability to read words, systematic phonics instruction was more effective than other approaches to teaching reading. Phonics instruction also had a positive impact on students’ reading comprehension and spelling and was most effective when begun early—in kindergarten and first grade (NICHD, 2000; Stuebing, Barth, Cirino, Francis, & Fletcher, 2008). A later meta-analysis also found positive effects of phonics instruction on prereading, reading, comprehension, and spelling skills (Suggate, 2016).

Learning A–Z Resources that Support Phonics Instruction

Raz-Plus and Reading A–Z

- **Decodable Books and Phonics Lessons** are systematically organized phonics lessons that provide direct and explicit instruction in sounds and their corresponding symbols with practice in blending, segmenting and word manipulation. Each phonics lesson is built on research-based strategies for introducing, teaching, and practicing a sound (phoneme) and its related symbol or symbols (graphemes). Lessons include activities using manipulatives, such as letter cards, phonogram cards, work mats, decodable and high-frequency word cards, games, and worksheets that support instruction and practice with skills such as phonemic awareness, sound/symbol relationships, writing and spelling, blending and segmenting, decoding, word families, and high-frequency words.

Designed to support the Orton-Gillingham approach to reading instruction, the Decodable Passages Packs emphasize systematic, sequential, multisensory, synthetic, and phonics-based instruction. The short passages with decodable words and various activities pair with supplementary, multisensory lessons, to provide multiple pathways for students to understand the sound/symbol relations as well as the “how” and “why” behind reading.

- **Sound/Symbol Books**, featuring simple pictures with labels, can be used to practice the sound/symbol relations introduced in phonics lessons. In Sound/Symbol Books, the target letter-sound combination might be shown in the initial, medial, or final position within words, and sometimes in more than one position for a particular letter-sound relation.

- **Phonics Assessments** include two types of assessments: the first type measures students' ability to associate a sound with a given symbol, and the second type measures students' ability to decode nonsense words.

Headsprout

- **Headsprout Early Reading** teaches sound-letter correspondence, segmenting, and blending through 80 online lessons. Students learn 94 carefully chosen phonetic elements to maximize their decoding repertoire. The sounds taught in early parts of the program are those that maintain a consistent pronunciation in over 85% of the words in which they appear, and thus maximize students' early success in sounding out words. Students read single- and multi-syllable words with common short and long vowel spelling patterns and words from common word families. Students also practice reading entire stories while decoding novel words in context.

Research on Headsprout Early Reading has shown that students who complete the program make gains on standardized tests compared to control groups, including the Diagnostic Reading Analysis (DRA) and Word Recognition and Phonic Skills (Tyler, Hughes, Beverley, & Hastings, 2015); the Woodcock-Johnson III-R Letter-Word Identification subtest and the Iowa Test of Basic Skills (ITBS) Word Analysis and Reading Words subtests (Twyman, Layng, & Layng, 2011); DIBELS Nonsense Word Fluency and Nonsense Word Reading subtests (Watkins et al., 2016) and DIBELS Phonemic Segmentation and Nonsense Word Fluency subtests (Clarfield, 2006).

IV. High-Frequency Words

High-frequency words are those that occur often in text. Frequent, cumulative exposure to these words leads to decreases in the time it takes to read them, and this difference has been shown in readers as young as eight years old (Joseph, Nation, & Liversedge, 2013). Mastering a repertoire of high-frequency words accelerates fluent and meaningful reading and helps students learn other words that contain similar parts (Fry et al., 2000; Pikulski & Chard, 2005).

Many words that occur frequently in written language cannot be sounded out because they are phonetically irregular (e.g., *the*, *have*). However, most still contain regularities in their letter-sound relations, and these regularities can be utilized in learning these words—for example, as when most letters in a word have regular letter-sound relationships with one or two exceptions, or when a pattern of letters has the same sound such as in *could*, *would*, and *should* (Ehri, 1995; Pikulski & Chard, 2005).

Learning A–Z Resources that Support Learning High-Frequency Words

Raz-Plus and Reading A–Z

- **High-Frequency Word Books** include the most commonly used sight words in printed texts.
- **Most Common Words Flashcards** include 220 of the most commonly used words, including sight words.
- **High-Frequency Words Assessments** help measure a student's ability to recognize and read high-frequency words.

Vocabulary A–Z

- **Sight Word Lists** include Dolch Sight Word Lists, Fry's 1,000 Most Frequently Used Words List, High-Frequency Words, Marzano Words Lists, and Spache Words Lists. These lists can be used to create custom lessons and practice materials directly from the website.

Headsprout

- **Headsprout Early Reading** teaches many common sight words, including *the, said, could, would, should, are, does*, and more. As students advance through the program, they practice recognizing and fluently reading high frequency sight words. In addition, Headsprout teaches students a strategy called “ballparking” to help them read words that are slightly irregular, such as *work*. In ballparking, students use the letter-sound relationships they have learned to sound out the slightly irregular word.

V. Fluency

Reading fluently involves reading accurately at a high rate and with expression or prosody (Kuhn, Schwanenflugel, & Meisinger, 2010; NICHD, 2000). Pikulski and Chard (2005) proposed that, in addition, reading fluency involves “efficient, effective word-recognition skills that permit a reader to construct the meaning of a text” (p. 510). Research suggests that children who read haltingly expend so much energy on word naming that few resources are left for comprehension. The work of many researchers has shown that repeated practice with familiar reading passages at a student’s independent reading level can improve fluency and lead to improved comprehension (Hudson, Lane, & Pullen, 2005; Padeliaadu & Giazitidou, 2018; Samuels, 2002; Suggate, 2016). Findings from the National Reading Panel’s meta-analysis and review of reading research along with other research reviews have shown that oral reading practice such as repeated reading can have a positive effect on students’ word recognition and reading fluency as well as comprehension (NICHD, 2000; Therrien, 2004).

Learning A–Z Resources that Support Fluency Practice

Raz-Plus and Reading A–Z

- **Fluency Practice Passages** are short passages designed to improve automaticity and inflection. Through repeated one-minute readings, students can increase their reading rate and accuracy while also working on proper expression and smoothness.
- **Fluency Timed Readings** assess reading fluency with two types of assessments. The first is a one-minute timed reading of a passage to measure the number and accuracy of words read. The second has a student perform a timed reading of a series of sentences and then answer true/false statements about the sentences to demonstrate comprehension.
- **Fluency Standards Tables** can help set research-based fluency targets for students. Learning A–Z provides suggested targets from some of the leading researchers in the field, including Rasinski (2005) and Hasbrouck and Tindal (2017).

Headsprout

- **Headsprout Early Reading** includes specially designed fluency exercises at the sound and word level as well as at the sentence and passage level. Fluency exercises at the sound and word level include finding sounds within words, saying sounds, and saying words. At the passage level, students build oral reading fluency through repeated readings of passages that gradually increase in difficulty. The narrator models appropriate pace and intonation, while students do repeated readings of familiar and unfamiliar passages to build reading rates. Benchmark Reading Assessments provide the opportunity for teachers to record oral reading rate and additional reading opportunities are provided through the use of over 90 printable books.

VI. Vocabulary

Vocabulary is an important component of reading achievement. When first learning to read, students sound out written words and recognize them when they correspond to known words—that is, words already in their oral vocabulary. As reading skills increase, reading vocabulary becomes important for comprehending text (NICHD, 2000).

Reviews of research on vocabulary and reading comprehension have found that vocabulary instruction can lead to increases in both vocabulary knowledge and reading comprehension and that a variety of instructional methods can be effective to teach vocabulary (Elleman, Lindo, Morphy, & Compton, 2009; NICHD, 2000; Snow, 2002; Stahl & Fairbanks, 1986). While some vocabulary acquisition comes from incidental learning (NICHD, 2000; Swanborn & de Glopper, 1999), research has shown that instructional strategies such as repeated exposure to words, pre-teaching vocabulary, and using context clues, are also effective—especially when these strategies happen in combination. Most students are capable of learning eight to 10 new words a week, according to the National Institute for Literacy (Armbruster, Lehr, & Osborn, 2009). Even brief instruction in word meanings can improve comprehension of text containing taught words, although studies have found that active processing tends to be more effective than passive receipt of definitions (NICHD, 2000; Stahl & Fairbanks, 1986; Wright & Cervetti, 2016).

Learning A–Z Resources that Support Vocabulary Instruction

Vocabulary A–Z

- **Word Lists** include lists of vocabulary words organized by function; content area, tier; specialized sets such as Dolch, Fry, and Marzano word lists; and connection to other resources, including those for ELL learners. Teachers can access these word lists or create their own from a pool of over 17,000 words. Once a word list is created, its contents populate a printable **5-Day Lesson Plan** to introduce and practice the words in multiple modalities, including games. The five days in these teaching plans need not be consecutive – teachers can use this plan for spaced practice.
- **Game-based practice** is a series of online activities where students apply their knowledge of new words in game-like tasks and receive immediate feedback for their answers. In this online practice, students apply their vocabulary words by matching words to definitions, context sentences or images; filling out context sentences with the correct words; and using definitions, context sentences, and cloze sentences as clues to find or spell vocabulary words. Teachers can also digitally assign game-based practice for vocabulary words from texts in Reading A–Z, Raz-Plus, Science A–Z, and popular basal programs.
- **Quizzes** are printable or interactive tools that allow teachers to quickly gauge student knowledge of target words.
- **Premade Vocabulary Lessons** are 5-Day Lesson Plans that include words found in specific texts from Reading A–Z, Raz-Plus, Science A–Z, and popular basal programs. Through their connection with specific texts, these lessons help to ensure that students also have a wider context for the target words. The words in premade vocabulary lessons can be assigned digitally to students in the form of game-based practice.

Raz-Plus and Reading A–Z

- **Vocabulary Graphic Organizers**, such as picture dictionaries and word meaning maps, are visual tools that support vocabulary learning.

Headsprout

- **Headsprout Early Reading** includes vocabulary activities throughout its 80-lesson sequence. Students begin to add words that are likely to be in their spoken vocabulary to their reading vocabulary. Through the use of character names and other less common words, they learn that words they may have never before encountered have meaning as well. New vocabulary words are also integrated into a variety of contexts, including online and printed stories.
- **Headsprout Reading Comprehension** explicitly teaches vocabulary words as well as strategies to derive word meaning from context. Students are directly taught target vocabulary words before reading a passage, and learn other word meanings through structured exercises in which they match words, pictures, and definitions. While reading a text, students are also able to select words to hear the word's pronunciation and meaning. Students learn an explicit strategy to derive the meaning of a word from its surrounding context, and vocabulary words are used throughout the program in multiple contexts, so students are exposed to and use the word multiple times.

VII. Comprehension

Comprehension is the ultimate goal of all reading instruction. When students comprehend text, they can extract meaning from the printed word and derive knowledge or pleasure from what they read. The Rand Reading Study Group defined reading comprehension as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002).

Instruction in the other foundational reading skills—phonemic awareness, phonics, fluency, and vocabulary—all have an effect on reading comprehension. Learners need to be able to decode, fluently read, and understand words in order to understand a text (Suggate, 2016; Wright & Cervetti, 2016). However, research has shown that explicit instruction in reading comprehension skills and strategies also has a positive effect on reading comprehension and that these effects maintain over time (NICHD, 2000; Suggate, 2016).

Reading comprehension strategies are procedures that teachers can teach learners through modeling and guidance and that learners can then ultimately apply independently while they read to increase their understanding of a text. For example, a reader might generate *who*, *what*, *how*, *when*, or *where* questions as they read (NICHD, 2000).

The National Reading Panel (2000) reviewed 205 studies investigating the effect of instructional strategies on reading comprehension and found that seven individual methods—monitoring understanding, answering questions, generating questions, summarizing, analyzing story structure, using graphic organizers, and cooperative learning—had positive effects on reading comprehension. Of these individual strategies, generating questions had the strongest evidence of effectiveness. However, strong effects were shown when multiple strategies were incorporated into a teaching model in which the teacher explained and modeled the use of combinations of strategies. The National Reading Panel's recommendation was therefore to combine the individual comprehension strategies when teaching their application.

Based on a review of 27 studies on reading comprehension in students in grades K to 3, Shanahan et al. (2010) also identified teaching reading comprehension strategies as having the strongest evidence base. In addition, Shanahan et al. recommended (1) teaching students to identify the organizational structure of the text, (2) guiding students through quality discussions of text, (3) selecting texts specifically for the purpose of supporting the learning and application of comprehension skills, and (4) establishing an engaging and motivating learning environment.

Strategies and Methods for Teaching Reading Comprehension	
Strategy/Method	Description
Monitoring understanding	Monitoring understanding means being an active, thoughtful reader. Readers are aware of their thought processes and their use of reading strategies.
Answering questions	Teachers ask questions to guide student understanding.
Generating questions	Students generate their own questions regarding who, what, where, when, why, and how.
Summarizing	Students identify main ideas and relevant details of the text.
Analyzing story structure	Students examine story elements such as sequence, setting, characters, and events.
Graphic organizers	Students use visual devices to represent elements and ideas embedded within the text.
Cooperative grouping	Students work together while learning and using comprehension strategies.
Incorporating multiple strategies	Teachers model how to apply a combination of the strategies above to extract meaning from text.

Learning A–Z Resources that Support Comprehension Instruction

Raz-Plus and Reading A–Z

- **Shared Reading Books** provide opportunities for teachers to model close reading, text-dependent questioning, and strategies for asking and answering questions with each projectable “big” book as they follow a five-day lesson.
- **Reading Graphic Organizers** help students visually sort new information into familiar categories, analyze relations between old and new information, and create a simple structure for thinking about information in new ways.
- **Close Reading Packs and Passages** help students practice analyzing, evaluating, and thinking critically about a text as they read it multiple times. The Close Read Question Guides include text-dependent questions that help teachers guide students to use annotation and other close reading skills to find the layers of meaning within a text.
- **Comprehension Skill Packs** include short passages to model and practice specific comprehension skills. Each lesson plan follows the “teach, practice, and apply” instructional approach to support students as they build meaning from texts.

Headsprout

- **Headsprout Early Reading** uses comprehension indicators to test whether students understand the text they are decoding. Comprehension activities within the program include: choosing which picture (from an array of three) “goes with” the sentence the student just read; constructing meaning by building sentences that result in an animated picture depicting the sentence; and expressing meaning by building sentences that describe a picture. Printable stories provide further opportunities for story-based discussion and questions.
- **Headsprout Reading Comprehension** provides explicit instruction and practice in reading comprehension strategies to answer literal, inferential, main idea, and derived meaning (vocabulary) questions. Students also learn to organize information using Venn, sequence, cluster, and hierarchical diagrams and to use resources such as tables of contents and different types of illustrations.

References

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge: MIT Press.
- Armbruster, B. B., Lehr, F., & Osborn, J. (2009). *Put reading first: The research building blocks of reading instruction: kindergarten through grade 3* (3rd ed.). Washington, D.C.: National Institute for Literacy.
- Clarfield, J. (2006). *Examining the efficacy of two computerized reading programs for kindergarten students at-risk for reading and behavior problems* (Doctoral dissertation). University of Massachusetts Amherst, Amherst, MA.
- Ehri, L. C. (1995). Phases of development in learning to read words by sight. *Journal of Research in Reading, 18*(2), 116-125.
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghub-Zadeh, Z., & Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly, 36*(3), 250-287.
- Elleman, A. M., Lindo, E. J., Morphy, P., & Compton, D. L. (2009). The impact of vocabulary instruction on passage-level comprehension of school-age children: A meta-analysis. *Journal of Research on Educational Effectiveness, 2*(1), 1-44.
- Fry, E. B., Kress, J. E., & Fountoukidis, D. L. (2000). *The reading teacher's book of lists*. San Francisco: Jossey-Bass.
- Hammill, D. D. (2004). What we know about correlates of reading. *Exceptional Children, 70*(4), 453-468.
- Hasbrouck, J., & Tindal, G. (2017). *An update to compiled ORF norms* (Technical Report No. 1702). Eugene, OR: Behavioral Research and Teaching, University of Oregon.
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how? *The Reading Teacher, 58*(8), 702-714.
- Jones, C. D., & Reutzel, D. R. (2012). Enhanced alphabet knowledge instruction: Exploring a change of frequency, focus, and distributed cycles of review. *Reading Psychology, 33*, 448-464.
- Joseph, H. S. S. L., Nation, K., & Liversedge, S. P. (2013). Using eye movements to investigate word frequency effects in children's sentence reading. *School Psychology Review, 42*(2), 207-222.
- Kuhn, M. R., Schwanenflugel, P. J., & Meisinger, E. B. (2010). Aligning theory and assessment of reading fluency: Automaticity, prosody, and definitions of fluency. *Reading Research Quarterly, 45*(2), 232-253.
- Melby-Lervåg, M., Lyster, S. A. H., & Hulme, C. (2012). Phonological skills and their role in learning to read: A meta-analytic review. *Psychological Bulletin, 138*(2), 322-352.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy.
- National Institute of Child Health and Human Development. (2000). Report of the National Reading Panel. *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
- Padeliadu, S., & Giazitzidou, S. (2018). A synthesis of research on reading fluency development: Study of eight meta-analyses. *European Journal of Special Education Research, 3*(4), 232-256.
- Piasta, S. B., & Wagner, R. K. (2010). Developing early literacy skills: A meta-analysis of alphabet learning and instruction. *Reading Research Quarterly, 45*(1), 8-38.
- Pikulski, J. J., & Chard, D. J. (2005). Fluency: Bridge between decoding and reading comprehension. *The Reading Teacher, 58*(6), 510-519.

- Rasinski, T., & Padak, N. (2005). *3-Minute Reading Assessments*. New York, NY: Scholastic Inc.
- Reutzel, D. R. (2015). Early literacy research: Findings primary-grade teachers will want to know. *The Reading Teacher*, 69(1), 14-24.
- Samuels, S. J. (2002). Reading fluency: Its development and assessment. In A. E. Farstrup and S. J. Samuels (Eds.), *What research has to say about reading instruction*. Newark: International Reading Association.
- Schatschneider, C., Fletcher, J. M., Francis, D. J., Carlson, C. D., & Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology*, 96(2), 265-282.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from whatworks.ed.gov/publications/practiceguides
- Shanahan, T., & Lonigan, C. J. (2010). The national early literacy panel: A summary of the process and the report. *Educational Researcher*, 39(4), 279-285.
- Snow, C. E. (2002). *Reading for understanding: Toward a research and development program in reading comprehension*. Santa Monica, CA: RAND.
- Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56(1), 72-110.
- Stanovich, K. E. (1996). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360-407.
- Stuebing, K. K., Barth, A. E., Cirino, P. T., Fancis, D. J., & Fletcher, J. M. (2008). A response to recent reanalyses of the National Reading Panel Report: Effects of systematic phonics instruction are practically significant. *Journal of Educational Psychology*, 100(1), 123-134.
- Suggate, S. P. (2016). A meta-analysis of the longer-term effects of phonemic awareness, phonics, fluency, and reading comprehension interventions. *Journal of Learning Disabilities*, 49(1), 77-96.
- Swanborn, M. S. L., & de Glopper, K. (1999). Incidental word learning while reading: A meta-analysis. *Review of Educational Research*, 69(3), 261-285.
- Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading: A meta-analysis. *Remedial and Special Education*, 25(4), 252-261.
- Twyman, J. S., Layng, T. V. J., & Layng, Z. (2011). The likelihood of instructionally beneficial, trivial, or negative results for kindergarten and first grade learners who complete at least half of Headsprout Early Reading. *Behavioral Technology Today*, 6, 1-19.
- Tyler, E. J., Hughes, J. C., Beverley, M., & Hastings, R. P. (2015). Improving early reading skills for beginning readers using an online programme as supplementary instruction. *European Journal of Psychology in Education*, 30(3), 281-294.
- United States Department of Education. (2002). *Guidance for the Reading First program*. Retrieved from <http://www.ed.gov/programs/readingfirst/legislation.html>
- Watkins, R. C., Hulson-Jones, A., Tyler, E., Beverley, M., Hughes, J. C., & Hastings, R. P. (2016). Evaluation of an online reading programme to improve pupils' reading skills in primary schools: Outcomes from two implementation studies. *Wales Journal of Education*, 18(2), 81-104.
- Wright, T. S., & Cervetti, G. N. (2016). A systematic review of the research on vocabulary instruction that impacts comprehension. *Reading Research Quarterly*, 52(2), 203-226.