CHAPTER ONE

Overview of Reading Comprehension

STUDY GROUP PROMPTS

1. How do good and poor readers differ when they talk about text they have read? Think of ways good readers respond to text that you might use in adapting your instruction for all learners. Can you determine from students' responses to text whether they really understood what they read?
2. What are some of the possible explanations when students with reading difficulties and disabilities have trouble with comprehension? Are there other factors related to reading comprehension that might need to be considered?
3. Determining how well students understand what they read is difficult because so much of it occurs "in the head" and isn't readily observable. What can you do to better determine how well your students understand what they read?
4. How would you describe the science of reading as it relates to reading comprehension? How might you assure your school principal that the practices you are using to enhance reading comprehension are aligned with the science of reading?

How is it that children learn to understand what they read? How do some students get lost in their reading and enter new worlds, build knowledge, and improve vocabulary, whereas others find reading a constant struggle that rarely nets comprehension? As teachers of students with reading difficulties and disabilities, we asked these questions anew each year with each incoming group of students. Few of the students we taught who had learning disabilities also read well and with comprehension. In this chapter, we present an overview of reading comprehension and related factors, particularly as they relate to students with significant reading and learning disabilities.

Understanding text, learning from it, and enjoying reading are the ultimate goals of learning to read. Although fundamental skills such as phonics and fluency are important building blocks of reading, reading comprehension is the "sine qua non of reading" (Beck & McKeown, 1998). Knowing how to read words has ultimately little value if the student is unable to construct meaning from text. Ultimately, reading comprehension is the process of constructing meaning by coordinating a number

of complex processes that include word reading, word and world knowledge, and fluency (Cornoldi & Oakhill, 2013; McKeown et al., 2009; Rasinski et al., 2012; Wise et al., 2007).

The phonological awareness and decoding skills of students with reading disabilities have been identified as serious inhibitors to successful reading (Ball & Blachman, 1991; Bridges & Catts, 2011; Herrera et al., 2015; Wise et al., 2007). Although there is little question that difficulties in these foundational skills impede successful growth in reading for many students, it is also true that many students with learning disabilities have significant challenges understanding and learning from text even when they are able to decode adequately (Williams et al., 2016). Explicit and highly structured development of beginning reading skills is required, as is highly structured instruction in reading comprehension.

In a landmark reading study, Durkin (1978–1979) conducted a series of observations of reading comprehension instruction. She revealed that typical comprehension instruction wasn't very engaging or likely to improve reading comprehension. She summarized reading comprehension instruction as following a three-step procedure: mentioning, practicing, and assessing. That is, teachers would *mention* the skill that they wanted students to use, then they would give them opportunities to *practice* that skill through workbooks or skill sheets, and finally they would *assess* whether or not the students used the skill successfully. Instruction was noticeably missing. Perhaps of even greater concern than the quality of comprehension instruction was the dearth of reading instruction observed. Based on more than 4,000 minutes of reading instruction observed in fourth-grade classrooms, only 20 minutes of comprehension instruction was recorded. This study significantly influenced research in reading comprehension. However, subsequent observation studies revealed little influence on classroom practice (Klingner et al., 2010; McKenna et al., 2015; Swanson & Vaughn, 2010). The Common Core State Standards (CCSS) for English language arts were constructed, in part, to address the issue of opportunity to read text. The goal is that students spend adequate time reading and responding to highly challenging and engaging text.

In an attempt to improve reading comprehension instruction, several theories have been proposed that suggest ways to influence understanding of the teaching of reading comprehension: schema theory, reader response theory, direct instruction, and the simple view of reading. A brief description of each of these influential theories provides the background for interpreting the instructional practices related to teaching reading comprehension that are presented in more detail elsewhere in this book.

Schema theory suggests that what we know about a topic or construct influences how much we can or will learn by reading a passage that addresses that topic (Anderson & Pearson, 1984). Thus, our knowledge and experiences related to key ideas in a text influence what we learn and remember about what we read. World knowledge and word meaning influence our understanding of texts we read. The more we read and learn about the topic, the easier the next passage on that topic will be for us to understand.

From a reader response constructivist perspective (Beach, 1993), understanding what is read is related to the individual's experiences and interpretations of these

experiences. This subjective component makes for a dynamic interaction between the reader and the text. Thus, what readers learn or how they respond to text is individualistic. Teachers and peers can facilitate and interact with other readers to enhance and extend learning.

Direct instruction approaches have been associated with improved outcomes in reading comprehension for students with learning disabilities, though outcomes are typically more robust for the foundation skills like phonics and word reading (Roman et al., 2009; Stockard et al., 2018). Direct instruction approaches provide for more explicit and systematic instruction related to the key ideas associated with improved reading comprehension. For example, because word meaning relates to understanding text, a direct instruction approach would ask teachers to identify key words in a passage and teach their meaning prior to reading.

The simple view of reading (SVR; Hoover & Gough, 1990) posits that reading comprehension is a product of decoding (accurate and efficient word reading) and linguistic comprehension (semantic and syntactic understanding often measured with listening comprehension). The proposition, which has been generally well supported through research, is that there is a multiplicative relationship between decoding and linguistic comprehension such that very low decoding even with high linguistic comprehension will yield low reading comprehension, and vice-versa. While research has largely supported the SVR model (Catts et al., 2006; Francis et al., 2018; Lonigan et al., 2018), there has been extensive work also arguing for additional components, such as active self-regulation, motivation, and engagement (Duke & Cartwright, 2021).

HOW DO THE READING COMPREHENSION SKILLS OF GOOD AND POOR READERS DIFFER?

Many of the instructional practices suggested for poor readers were derived from observing, questioning, and asking good and poor readers to "think aloud" while they read (Dole, 1991; Jiménez et al., 1995, 1996). Reports of how good readers understand and learn from text suggest that they coordinate a set of highly complex and well-developed skills and strategies before, during, and after reading that assist them in understanding and remembering what they read (Paris et al., 1991). Good readers monitor their understand while they are reading and think about how what they are reading contributes to what they already know. The skills and strategies that good readers use include:

- Rapid and accurate word reading: Reading effortlessly allows these readers to think about what they are learning and make connections.
- Setting goals for reading: Whether it is to read for pleasure, read to learn, or read to take action—good readers read with a purpose.
- Noting the structure and organization of text: Whether inferentially or deliberately good readers look at how the text is organized and structured, and this information helps them better understand what they are reading.

- Monitoring their understanding while reading: Good readers consistently monitor their understanding, asking whether the text makes sense and rereading or repairing to improve understanding.
- Creating mental notes and summaries: Good readers write notes or mentally keep track of characters, events, or key ideas, which promotes comprehension.
- Making predictions: Good readers make predictions about what will happen, check them as they go along, and revise and evaluate them as needed.
- Capitalizing on what they know: Good readers capitalize on what they know about the topic and integrate that with new learning.
- Making inferences: Making inferences is a key skill, and good readers follow up their inferences by checking them.
- Using mental images: Visualization can assist good readers in remembering or understanding events or characters.

As you think about the reading comprehension of good and poor readers, consider whether you think of poor readers as homogeneous, with many shared reading difficulties. There is increasing evidence that fewer than 15% of readers have adequate and accurate word reading (above 90 standard score) but demonstrate poor comprehension (below 90 standard score). This subgroup of students likely demonstrates significant oral language difficulties, and preliminary evidence suggests that they benefit from a language-based reading intervention program (Kelso et al., 2022; Snowling & Hulme, 2011).

In contrast with the integrated and strategic approaches to understanding text applied by good readers, poor readers use few effective strategies for understanding and remembering what they read (Berkeley & Larsen, 2018; Edmonds et al., 2009). There may be many explanations for this. First, poor readers are less interested in reading, as the task is challenging for them. Second, they may view reading as a task to finish rather than understand. Third, they often have significant word-reading difficulties, which make processing text slow and laborious, and they have inadequate vocabulary and background knowledge with which to connect and link new ideas to previous learning. Furthermore, unlike good readers, poor readers lack the decoding, word-reading, and fluency skills to free up cognitive functioning so that their full attention can be focused on learning from reading.

Students with learning disabilities are often the poorest readers; they demonstrate multiple problems associated with low comprehension, including poor decoding, fluency, and comprehension (Berkeley & Larsen, 2018). These students also exhibit characteristics of inactive learners who do not monitor their learning or use strategies effectively. Yet, students with learning disabilities can improve their reading comprehension if teachers:

1. Teach strategies that have been documented as effective in promoting reading comprehension.
2. Design instruction that incorporates effective principles of direct instruction and strategy instruction.

3. Provide modeling, support, guided instruction, practice, attributional feedback, and opportunities to practice across text types.
4. Monitor students' progress and make adjustments accordingly.

Many of the reading comprehension strategies that have been associated with the highest effect sizes for students with learning disabilities are those that teach students by prompting them to monitor and reflect before, during, and after reading. These strategies ask students to (1) consider their background knowledge on the topic they are reading and use that background knowledge to integrate with text information, (2) summarize key ideas, and (3) self-question while they read (e.g., Gersten et al., 2001; Scammaca et al., 2016; Wanzek et al., 2010) (see Figure 1.1).

WORD READING, FLUENCY, AND VOCABULARY: ESSENTIAL FEATURES OF READING COMPREHENSION

The majority of students with reading disabilities are likely to demonstrate difficulties with decoding, fluency (reading words quickly and accurately), and vocabulary; however, a small subgroup of students demonstrates only difficulties with reading

Explicit instruction, strategy instruction, or a combination of both are associated with the highest effect sizes in reading comprehension for students with reading disabilities. Both explicit instruction and strategy instruction have the following components in common:

1. Assessment and evaluation of learning objectives, including orienting students to what they will be learning
2. Daily reviews of learning objectives to assure mastery
3. Teacher presentation of new material, including giving examples and modeling expected student performance
4. Guided instruction, including asking questions to determine understanding
5. Feedback and correction
6. Independent practice and review
7. Monitoring student progress

The instructional components that contribute the most to improved effect sizes in reading comprehension include:

1. Teacher and students questioning
2. Interactive dialogue between teachers and students and between students and students
3. Controlling task difficulty and scaffolding instruction
4. Elaboration of steps or strategies and modeling by the teacher
5. Small-group instruction
6. Use of cues to help students remember to use and apply what they learn
7. Monitoring student progress and providing opportunities to chart progress
8. Reading a range of text types (e.g., narrative, biography, information) and across a range of reading levels

FIGURE 1.1. Key ideas in reading comprehension. Information in this figure is adapted from work conducted by Swanson and colleagues (Swanson, 1999, 2001; Swanson et al., 1999).

comprehension (Cirino et al., 2013). This subgroup has language-based reading comprehension difficulties, and initial evidence suggests that they may differentially benefit from instruction with a language focus (Snowling & Hulme, 2011). Students with significant difficulties in decoding, fluency, and vocabulary will demonstrate problems with reading comprehension. One reason for this interference is that readers have only so much short-term cognitive, or thinking, capacity for a task. If too much effort is allocated to decoding, little capacity is available for focusing on comprehension.

Myra, Laticia, and Jorge are sixth-grade students identified with learning disabilities who demonstrate significant problems understanding text. Myra has difficulty reading multisyllabic words and still confuses basic sight words such as *from*, *where*, and *laugh*. Although she has difficulty with decoding, Myra is interested in many topics related to social justice and is motivated to read and learn. Her difficulties decoding words slow down her reading and often require her to read slowly and to reread text in order to understand it. Myra's text reading improves when key words are reviewed and taught to her prior to reading. Laticia, though an accurate word reader, reads very slowly (about 60 correct words per minute). This slow reading negatively influences comprehension and also makes it difficult for her to read widely. Jorge reads quickly as long as he is very familiar with the words. Jorge's challenge is that he does not know the meanings of many words that appear in his expository text for science and social studies. Because he does not enjoy reading, he does not read often, and thus his knowledge of new words and ideas is limited. His limited vocabulary and world knowledge prevent him from fully understanding what he has read because he either lacks sufficient background knowledge or misses the meaning of so many words that comprehension on all but a superficial level is difficult.

Myra, Laticia, and Jorge provide examples of the difficulties that many students with learning disabilities have with reading comprehension and illustrate the value of teaching critical foundational skills such as word reading (decoding), fluency (accuracy and speed of reading), vocabulary (knowing what the words mean in context), and world knowledge (having sufficient background knowledge to benefit from reading text). Many students with learning disabilities have challenges in more than one area that influence their text comprehension. Teachers who are aware of the many elements that contribute to comprehension are more likely to consider these when assessing students' reading comprehension difficulties and implementing targeted instruction.

What Can Teachers Do If Older Students Have Poor Word Reading (Decoding)?

Knowing how to read, or decode, words is not a small part of the reading process—it is a critical link whose absence inhibits understanding. The common belief is that word-reading and decoding problems only occur with students in the early grades (K–2), yet the vast majority of students with reading difficulties in grade 3 and above demonstrate difficulties reading words accurately. When students are beginning to read, they may have difficulty with such words as *saw*, *them*, and *their.* As students progress through reading, they may have difficulty reading such words as *challenge*, *fascinate*, and *immune*. The goal is to identify, prior to reading, the key words that

students are likely to have challenges decoding and to teach these words so that students can read these words and use them in discussions and written expression. Achieving this goal with students with learning disabilities is no easy matter.

Teachers can provide support by teaching the decoding skills students need initially to read more basic words. After students can read basic words and have the fundamental phonics principles to decode words, then teachers need to provide instruction in the decoding of more complex and multisyllabic words. A few pointers to facilitate decoding in older students include the following:

- Practice decoding with very complicated, multisyllabic words. Break these words into syllables and then treat each syllable as a separate word type for decoding.
- Ask students to locate words that they cannot read. Keep these words in a word bank or on a word wall and use them for activities on teaching decoding.
- Teach students common rules for decoding and remind them to use these rules when reading multisyllabic words. Review rules using key words from the text. For example, in the word *reduction*, show students that there are three word parts: *re duc tion*. Use the rules students know and the words they currently can read to help them decode each word part and then read the entire word.
- Teach students common prefixes, suffixes, and affixes so that reading multisyllabic words is easier and more meaningful.
- Demonstrate that some words are "irregular" and do not conform with the typical rules of our language. Keep a word wall of irregular words that students need to practice.
- Indicate that proper nouns, such as the names of people, places, and things, are often difficult to read. Teaching what these names refer to in the chapter before students read and connect them, so that students know who the story is about, where it takes place, and other related issues, facilitates word reading and comprehension.
- Teach students to read complex high-frequency words that are phonetically irregular (e.g., *through*) and give them many opportunities to read these words in text correctly.

The What Works Clearinghouse (WWC) has released a guidance document on teaching reading comprehension to students in grades 4–9 with significant reading difficulties (Vaughn et al., 2022). They identify multisyllabic word reading as a useful technique to promote success. Students can learn to read and remember difficult words by selecting syllables from each of three columns to build multisyllabic words. For example, students can have a list of eight syllables in column 1, eight syllables in column 2, and eight syllables in column 3 and figure out how to select and combine them to make complex words. For example, the syllables *fre*, *quent*, and *ly* are combined to make *frequently*. The syllables *in*, *fec*, and *tion* are combined to make *infection*. Figure 1.2 provides a list of resources to assist with teaching decoding. Table 1.1 is a summary of practices identified in the WWC guidance document for teaching multisyllabic word reading (Vaughn et al., 2022).

Building Words: A Resource Manual for Teaching Word Analysis and Spelling Strategies (2001) by T. G. Gunning. Boston: Allyn & Bacon.

Making Sense of Phonics: The Hows and Whys (2nd ed.) (2013) by I. L. Beck & M. E. Beck. New York: Guilford Press.

Phonics From A to Z, 3rd Edition: A Practical Guide (3rd ed.) (2017) by W. Blevins. New York: Scholastic Professional Books.

Phonics They Use: Words for Reading and Writing (7th ed.) (2017) by P. Cunningham. Pearson.

Teaching Word Recognition: Effective Strategies for Students with Learning Difficulties (2nd ed.) (2014) by R. E. O'Connor. New York: Guilford Press.

Word Journeys: Assessment-Guided Phonics, Spelling, and Vocabulary Instruction (2nd ed.) (2013) by K. Ganske. New York: Guilford Press.

Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction (6th ed.) (2020) by D. R. Bear, M. Invernizzi, S. R. Templeton, & F. Johnston. Pearson.

FIGURE 1.2. Resources for teaching decoding.

What Can Teachers Do If Students Have Poor Fluency?

Reading words automatically and with accuracy allows students to "free up" their thinking so that they can concentrate on text meaning (Kuhn et al., 2010; Perfetti, 1985). Students who read by decoding too many words or with reduced accuracy also demonstrate difficulties keeping up with class expectations in reading and learning and have more difficulty remembering what they read. You can imagine how reading very slowly and laboriously might discourage students and reduce interest in reading and learning from print.

How fast should students read? Starting at fourth grade the correct words read per minute for 25th, 50th, and 75th percentile are 75, 94, and 125, respectively. The same data for fifth grade are 87, 121, and 153; and for sixth grade: 112, 132, and 169 (Hasbrouck & Tindal, 2017). To achieve this goal, students need to know how to read words automatically, without a lot of pauses to figure out the word.

Teachers can provide support by teaching fluency skills that students need in order to read for comprehension. A few pointers to facilitate fluency include the following:

- Monitor students' progress in reading by asking them to read informational passages at the grade level you are teaching. Calculate the correct words read per minute. Ask students to monitor their progress by graphing results.
- Model reading challenging passages while students follow along and then ask them to read them.
- Ask students to reread difficult passages.
- Ask students to work with peer partners to read and reread passages.
- Identify key words and proper nouns and preteach prior to asking students to read text.
- Have students listen to an audio version of the text prior to reading independently.

TABLE 1.1. WWC Recommendations on Building Skills for Multisyllabic Word Reading (Vaughn et al., 2022)

#	Recommendation	Steps to implement
1	Build students' decoding skills so they can read complex multisyllabic words.	1. Identify the level of students' word-reading skills and teach vowel and consonant letter sounds and combinations, as necessary. 2. Teach students a routine they can use to decode multisyllabic words. 3. Embed spelling instruction in the lesson. 4. Engage students in a wide array of activities that allow them to practice reading multisyllabic words accurately and with increasing automaticity.
2	Provide purposeful fluency-building activities to help students read effortlessly.	1. Provide a purpose for each repeated reading. 2. Focus some instructional time on reading with prosody. 3. Regularly provide opportunities for students to read a wide range of texts.
3	Routinely use a set of comprehension-building practices to help students make sense of the text.	1. Develop world knowledge that is relevant for making sense of the passage. 2. Teach the meaning of a few words that are essential for understanding the passage. 3. Teach students how to derive meanings of unknown words using context. 4. Teach prefixes and suffixes to help students derive meanings of words. 5. Teach the meaning of Latin and Greek roots.
3B	Consistently provide students with opportunities to ask and answer questions to better understand the text they read.	1. Explicitly teach students how to find and justify answers to different types of questions. 2. Provide ample opportunities for students to collaboratively answer questions. 3. Teach students to ask questions about the text while reading. 4. After students demonstrate comfort with reading stretch texts with the group, provide students with electronic supports to use when independently reading stretch text to assist with pronunciation of difficult words and word meanings.
3C	Teach students a routine for determining the gist of a short section of text.	1. Model how to use a routine to generate gist statements. 2. Teach students how to use text structures to generate gist statements. 3. Work collaboratively with students to generate gist statements.
3D	Teach students to monitor their comprehension as they read.	1. Help students determine when they do not understand the text. 2. Teach students to ask themselves questions as they read to check their understanding and figure out what the text is about. 3. Provide opportunities for students to reflect on what they have learned.
4	Provide students with opportunities to practice making sense of stretch text (i.e., challenging text) that will expose them to complex ideas and information.	1. Prepare for the lesson by carefully selecting appropriate stretch texts, choosing points to stop for discussion and clarification, and identifying words to teach.

- Give opportunities for students to showcase their reading by asking them to prepare a passage or dialogue to read aloud to the class. Advance preparation allows students time to read and reread material—an effective practice for improving fluency.
- Names of people, places, and things are often difficult to read; teach these names prior to reading.

Table 1.2 provides a list of resources to assist with teaching fluency.

WHAT IS INVOLVED IN READING COMPREHENSION?

Reading comprehension involves much more than readers' responses to text. Reading comprehension is a multicomponent, highly complex process that involves many interactions between readers and what they bring to the text (previous knowledge, strategy use) as well as variables related to the text itself (interest in text, understanding of

TABLE 1.2. Resources for Teaching Fluency

For evidence-based curricula, check: What Works Clearinghouse
Website: *https://ies.ed.gov/ncee/wwc/FWW*

Peer-Assisted Learning Strategies—Reading (PALS) (Classwide Peer Tutoring)
Contact: PALS Outreach
Vanderbilt University
228 Peabody
110 Magnolia Circle, Suite 418
Nashville, TN 37203-5721
Website: *https://frg.vkcsites.org/what-is-pals*

Read Naturally
Contact: Read Naturally
1284 Corporate Center Drive, Suite 600
Saint Paul, MN 55121
651-452-4085
Website: *www.readnaturally.com*

Great Leaps
Contact: Great Leaps
P.O. Box 357580
Gainesville, FL 32635
Website: *www.greatleaps.com*

Corrective Reading
Contact: McGraw Hill
McGraw Hill
P.O. Box 182605
Columbus, OH 43218
Website: *www.mheducation.com/prek-12/program/corrective-reading-2008/MKTSP-URA04M0.html*

Quick Reads: A Research-Based Fluency Program
Contact: Savvas Learning Company
Website: *www.savvas.com*

Wilson Reading System
Contact: Wilson Reading System
Wilson Language Training
47 Old Webster Rd.
Oxford, MA 01540
Website: *www.wilsonlanguage.com/programs/wilson-reading-system*
Email: *eorders@wilsonlanguage.com*

Into Reading/Literature and Reading 180
Contact: HMH
Website: *www.hmhco.com*

Voyager Passport
Contact: Voyager Sopris
Cambium Learning Group
17855 Dallas Parkway, Suite 400
Dallas, TX 75287
800-547-6747
Website: *www.voyagersopris.com/literacy/voyager-passport/overview*

text types). Effective reading comprehension also involves regulating thinking while reading as well as good working memory to hold the key ideas together.

Cognitive Processes

What is actually happening when we comprehend what we are reading? Irwin (1991) describes five basic comprehension processes that work together simultaneously and complement one another: microprocesses, integrative processes, macroprocesses, elaborative processes, and metacognitive processes. We describe each of these next. While reading about these different cognitive processes, keep in mind that the reader uses these different strategies fluidly, going back and forth from focusing on specific chunks of text, as with microprocessing, to stepping back and reflecting about what has been read, as with metacognition.

Microprocesses

Microprocessing refers to the reader's initial chunking of idea units within individual sentences. *Chunking* involves grouping words into phrases or clusters of words that carry meaning and requires an understanding of syntax as well as vocabulary. For example, consider the following sentence:

Michelle put the yellow roses in a vase.

The reader does not picture *yellow* and *roses* separately, but instead immediately visualizes roses that are the color yellow. The good reader processes *yellow roses* together.

Selective recall is another aspect of microprocessing. The reader must decide which chunks of text or which details are important to remember. When reading only one sentence, it is relatively easy to recall details, but remembering becomes more difficult after reading a long passage. For example, the reader may or may not remember later that the roses were yellow. To some extent, whether this detail is remembered will depend upon its significance in the passage. In other words, does it matter in the story that the roses were yellow, or is this just an unimportant detail?

Integrative Processes

As the reader progresses through individual sentences, they are processing more than the individual meaning units within sentences. The reader is also actively making connections across sentences. This process of understanding and inferring the relationships among clauses is referred to as *integrative processing*. Subskills involved in integrative processing include being able to identify and understand pronoun referents and being able to infer causation or sequence. The following two sentences demonstrate how these subskills are applied:

Michael quickly locked the door and shut the windows.
He was afraid.

To whom does *he* apply? Good readers seem to automatically know that *he* in the second sentence refers to *Michael* in the first sentence. And good readers infer that Michael locked the door and shut the windows *because* he was afraid.

Macroprocesses

Ideas are better understood and more easily remembered when the reader is able to organize them in a coherent way. The reader does this by summarizing the key ideas read. The reader may either automatically or deliberately (i.e., subconsciously or consciously) select the most important information to remember and delete relatively less important details. The skillful reader also uses a structure or organizational pattern to help them organize these important ideas. More proficient comprehenders know to use the same organizational pattern provided by the author to organize their ideas (e.g., a story map that includes characters and setting/problem/solution in a narrative or a compare-and-contrast text structure for an expository passage).

Elaborative Processes

When we read, we tap into our prior knowledge and make inferences beyond points described explicitly in the text. We make inferences that may or may not correspond with those intended by the author. For instance, in the two sentences provided above about Michael, we do not know why he was afraid. But we can predict that perhaps he was worried that someone had followed him home, or maybe a storm was brewing and he was concerned about strong winds. When making these inferences, we may draw upon information provided earlier in the text or upon our own previous experiences (e.g., perhaps at some point the reader was followed home and hurried inside and quickly shut and locked the door). This process is called *elaborative processing*.

Metacognitive Processes

Much has been made of the importance of *metacognition*, that is, thinking about thinking. Metacognition is the reader's conscious awareness or control of cognitive processes. The metacognitive processes the reader uses are those involved in monitoring understanding, selecting what to remember, and regulating the strategies used when reading. The metacognitive strategies the reader uses include rehearsing (i.e., repeating information to enhance recall), reviewing, underlining important words or sections of a passage, note taking, and checking understanding.

The Science of Reading Comprehension

When people refer to the science of reading they are typically referring to phonics instruction and effective word reading (Shanahan, 2020). While many of the arguments in the so-called reading wars refer to the efficacy of phonics instruction, when

we think about the science of reading it is beneficial to think beyond the foundation skills of reading and to consider that the ultimate goal is reading comprehension. In this book, we emphasize the findings from the science of reading as they relate directly to significantly improving reading outcomes for students.

The CCSS and Reading Comprehension

How do the CCSS for English language arts relate to students with reading comprehension difficulties? The CCSS were developed by governors, state education agencies, local education agencies, and other professional groups working together to determine what knowledge and skills students needed to succeed in reading and language arts (as well as other content areas). The intention was to establish common standards across the United States so that whether students were attending school in Iowa, Georgia, Maine, or New Mexico, teachers and educational leaders would hold the same expectations for them. As of now, 35 states have full implementation of the Common Core standards, with Minnesota adopting only the English standards (Editorial Projects in Education, 2021). For the schools and districts in Common Core states the content of the CCSS will look very familiar. The foundation skills of phonemic awareness, phonics and word study, fluency, vocabulary, and comprehension are central to teaching students to read. Highlighted within the CCSS is an increased emphasis on more challenging and difficult texts and greater amounts of expository or informational text. What is the influence of the CCSS emphasis on challenging texts for students with learning and reading difficulties? For one thing, it means that all students, including students with reading problems, will be held to increasingly more challenging reading comprehension expectations. It also means that students are likely to be reading more "original texts" rather than texts that were rewritten at lower readability levels. It means that all students will be reading more informational texts. Furthermore, there is considerably less emphasis on teachers reading the text and increasingly more emphasis on students both reading and then rereading more challenging texts. While we learn more about what this means for all learners in the classroom as the CCSS are implemented, we can expect that students with reading comprehension problems will need the following:

- Opportunities to read text on a range of reading levels, including text on their level, text that is slightly too difficult for them, and grade-level text.
- Scaffolds and supports from highly knowledgeable teachers to appropriately access and learn from challenging texts.
- Opportunities to read text that is "required" but also text that is self-selected.
- Increased knowledge of academic vocabulary and key ideas to support access to understanding and learning from complex informational texts.

Several websites provide additional information about the CCSS for teachers. For teacher lessons with the Common Core, see *www.sharemylesson.com*. For information about the Common Core see *www.corestandards.org*.

CONCLUSION

This book describes activities and assessments for reading comprehension that can be used to enhance reading comprehension outcomes for students with learning difficulties and disabilities. It is intended for general and special education teachers interested in assessing and intervening with students at risk for reading difficulties. We provide an up-to-date summary of what we have learned, as a field, from research on the reading comprehension of students with learning disabilities. We know that reading comprehension is a complex process of constructing meaning by coordinating a number of skills related to decoding, word reading, and fluency and the integration of background knowledge, vocabulary, and previous experiences. We know that improving reading comprehension is not about focusing on one thing (e.g., word reading), but about addressing the complex array of components that contribute to understanding reading—everything from word reading, to word meaning, to world knowledge. In this book, we address each of these components with the hope that they can be integrated into effective teaching.

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