FUNDAMENTALS OF

SECOND EDITION

Literacy Instruction & Assessment

PRE-K-6



Fundamentals of Literacy Instruction & Assessment, Pre-K-6

Second Edition

edited by

Martha C. Hougen, Ph.D.

and

Susan M. Smartt, Ph.D.

with invited contributors



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Dr. Wilson studies ways to improve the teaching and learning of writing and how automated writing evaluation software programs may be used to achieve those goals. A former special education teacher, Dr. Wilson is particularly interested in improving writing achievement for students with or at risk for learning disabilities. He regularly partners with school districts that are piloting automated writing evaluation, supporting districts' efforts to study the resulting outcomes on writing instruction and learning.

Preface

Dear Reader.

Why did we write this book? Why should you read it? Because...

- · Competency in literacy is necessary if we are to have an informed, knowledgeable citizenry.
- Reading and writing achievement scores in the United States are not improving, particularly for students who struggle with learning to read and write.
- Teachers are not well prepared to teach reading effectively or to address the diverse needs of each student
- Teacher educators in a large number of educator preparation programs are not teaching teacher candidates the science of reading: what it is and how to implement the concepts in the classroom.
- It is more effective and beneficial for students if we prevent learning failure rather than try to provide remediation when students are older. There is no need to "wait until they fail" before providing intervention instruction.

Our goal is to communicate the urgency of the current state of literacy instruction and to support educators in pre-K-12 schools, education specialists, and teacher educators to better support our young readers.

In the last decade, there has emerged a convergence of scientific evidence about how to teach literacy and how to intervene with students who struggle to learn. The editors and contributors to this text are passionate about sharing this evidence and instructional strategies that are supported by the research. Teachers and administrators, and those who prepare them, must have knowledge of the research and evidence-based practices to meet the needs of each student. Support personnel, such as instructional coaches, school psychologists, speech and language therapists, and reading specialists, will provide more effective support if they are aware of these precepts.

We consider this the first text in a series you will study on your path to becoming an effective literacy teacher. Our intention is to provide you with a broad overview of how to teach each student to read and write with proficiency. This text is intended for the general education teacher and support personnel responsible for teaching the majority of students in a school. We include information about how to teach students who are typically developing students, accelerated students, and English learners. Because students with disabilities spend most of their school day in general education classrooms, we have included how best to assess and instruct students with mild disabilities such as dyslexia, other reading disabilities, and language impairments. We place an emphasis on vulnerable students who depend on excellent teachers to teach them and prevent their failure.

There are several themes that are woven throughout the text and addressed in each chapter. These themes include the following:

- · Learning and applying the science of how students learn to read and write
- Using guiding questions to encourage consideration and evaluation of the content and supporting research
- Using assessment data to measure student progress and inform your instruction

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- · Implementing interventions with fidelity, as the interventions were designed to be taught
- · Applying the features of effective instruction to evaluate and improve instruction
- $\bullet \quad Learning your \ role \ and \ responsibilities \ in \ the \ implementation \ of \ a \ Multi-Tiered \ System \ of \ Supports.$

We encourage you to make use of additional materials provided online (see the About the Online Materials page for information on how to access these). Among the materials included are numerous sources for additional information, guides to resources for professional development as well as classroom instructional activities, examples of syllabi for teacher educators teaching the early literacy courses, and examples of lesson plans for teachers illustrating how to organize their day and design instruction to best meet the needs of each student.

We are hopeful that this text will contribute to improved literacy achievement for all our children, leading to increased educational and occupational opportunities so that all our students can live fulfilling and productive lives.

Thank you for your dedication to our children.

Acknowledgments

We are most grateful for our esteemed colleagues who contributed to this book, sharing their vast knowledge, expertise, and experience. The work was challenging, complex, and rewarding, and we are honored that they agreed to be contributing authors.

We thank the numerous literacy professionals—teachers, researchers, professors, administrators, and colleagues—who have contributed to our ever-growing knowledge of literacy instruction and practice. Because of the opportunity to work with them, to study their work, and to be mentored by them, we were motivated and prepared to write this book.

We also acknowledge and express our gratitude to the students and teachers with whom we have had the privilege to work. It is from them that we learned the most about how to teach and motivate learners. They have been our guides as we continually strive to become more effective educators.

We hope this text increases your knowledge how to teach reading and writing effectively, and that it prepares you for more in-depth study of literacy. We wish you a successful and rewarding career in teaching, an important and challenging job!

We are grateful to the professionals who shared their resources and insight and provided us with editorial feedback:

Audie Alumbaugh, Arkansas Dyslexia

Kelly Butler, Michael Cormack and Marion McBride, Mississippi Reads

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-Martha C. Hougen and Susan M. Smartt

To the teachers and students who have enriched our lives by their dedication and motivation to be the best they can be

and

To our grandchildren, Ava, Matthew, Sam, Bradley, and Samantha, who are just beginning their school careers and for whom we strive to ensure that all children have a positive and productive educational experience



SECTION I

An Introduction to Literacy Instruction and Assessment

Becoming an Effective Literacy Teacher

Martha C. Hougen

We know that literacy can open the mind of a child to whole new areas of learning and that the very process of becoming literate can contribute to the new reader's creativity, personal growth, and essential thought. We also know that developing such forms of thinking in a society can fuel discovery, productivity, and innovation, which, in turn, can drive economic growth, public health, and the well-being of that society. (M. Wolf, 2016, pp. 9-10)

Our society depends on people who are skilled and thoughtful readers. When people read often and widely, in many subjects, they develop broad background knowledge, an extensive vocabulary, and essential thinking abilities enabling them to contribute positively to their community. Reading is the foundation for developing literate brains, and literate brains are the foundation for knowledgeable, thoughtful citizenry (Wiliam, 2018; Wolf, 2016). The purpose of this book is to ensure that teachers have the knowledge and skill to make certain that each child develops essential literacy skills. With such capability, young people are better prepared to achieve fulfilling lives and to positively contribute to our increasingly complex society.

The beginning of a new school year is exciting for both students and their teachers. Kindergartners enthusiastically anticipate learning how to read, and teachers are motivated to ensure that all of

OBJECTIVES After studying this chapter, you will be able to:

- 1. Articulate the Big Idea Guiding Questions that provide the organizational framework for this text.
- 2. Anticipate what you will learn in this text.
- 3. Articulate your role and responsibilities as a tutor.
- 4. Explain landmark laws affecting education, assessments of educational progress, and current national initiatives.
- 5. Explain four considerations for effective, efficient, and engaging literacy instruction supported by science
- 6. Discuss the purpose of multiple systems of support for students and the essential precepts of two frameworks: Response to Intervention (RTI) and Multi-Tiered Systems of Support (MTSS).
- Identify common unproven assumptions about teaching.

them succeed. However, by the end of the year, many students have not learned the foundational skills for literacy. In subsequent years, many of the students still do not master beginning literacy skills, and it is unlikely that these students will ever catch up with their peers (Juel, 1988; Lonigan, Burgess, & Anthony, 2000; National Assessment of Educational Progress [NAEP], 2019). Frustrated teachers, administrators, and legislators wonder how they can improve schools and instruction so that each student achieves. Educators are correct in being concerned about the education of our most at-risk youth but often implement ineffective solutions. Those educators with the authority to enact substantial improvements instead tend to "move the chairs on the Titanic," working hard but not addressing the substantive issues. Such activities as retaining children in elementary school, creating summer schools with little oversight, or recruiting volunteers to listen to children read do not have a significant effect. Rather, to prevent reading failure, pre-kindergarten (pre-K)-12 schools and educator preparation programs need information about the science of reading and effective implementation of evidencebased practices.

A convergence of research about the science of reading has affirmed the essential knowledge and skills students need and how to teach those skills (Cavanaugh, Kim, Wanzek, & Vaughn, 2004; Denton, Vaughn, & Fletcher, 2003; Kilpatrick, 2015; Seidenberg, 2017; Torgesen, 2002, 2004). The challenge is to address the "knowing-doing gap" by translating the research into practical applications that teachers implement effectively in their classrooms (Wiliam, 2018). The purpose of this text is to introduce you to the science of reading and describe the strong evidence base for instructional practices in teaching reading and writing. It includes explicit, systematic, and engaging instruction in the five essential components of reading: phonological and phonemic awareness, phonics, fluency, vocabulary, and comprehension.

BIG IDEA GUIDING QUESTIONS

Several guiding questions provide the framework for this text and clarify how the most essential components of effective literacy instruction are addressed. For each component, we will discuss:

- 1. What is the component? Why is it important? What research supports this component?
- 2. What should students know and be able to do at specific grade levels, pre-K-6?
- 3. How do we teach each evidence-based component effectively and efficiently?
- 4. How do we assess what students know and how much they are learning?
- 5. How do we use the data obtained from assessments to adjust instruction?
- 6. How do we use an evidence-based curriculum to deliver effective instruction that incorporates state standards for students and professional standards for educators?

An overview of each chapter is provided in the following sections. Please note that the essential components of effective literacy instruction are each discussed in a separate chapter; however, as a teacher you will interweave the components in your teaching. Chapter 2 shares an analogy of becoming a proficient reader to making a strong rope: each strand of the rope represents a skill to be learned. Tightly intertwined strands produce a strong rope or, in our case, a proficient reader.

Chapter 1 Becoming an Effective Literacy Teacher

This introductory chapter provides an overview of major federal legislation, national assessments, and national initiatives such as tiered models of instruction. The importance of comprehensive preservice programs and in-service professional development, based on reading research and supervised teaching practice with feedback, is stressed. Common assumptions about teaching, unsupported by research, are debunked. To provide you with opportunities to practice the strategies and activities presented, a plan to tutor students is proposed.

Chapter 2 Critical Components of Teaching Structured Reading

The science of reading and five essential components of effective reading instruction are previewed as an advanced organizer for the following in-depth discussions about each component. Five features of effective instruction and five ways to ensure optimal learning are explained and referred to throughout the text. A major emphasis of this text is how to teach all students, including those who struggle because of social-economic challenges, lack of opportunity, and inadequate instruction. The unique challenges of English learners (ELs) and students who have difficulty due to dyslexia or other reading difficulties is also addressed in each chapter..

Chapter 3 Assessment Basics

Assessment plays a critical role in literacy instruction and is a primary component in an evidence-based reading program. Teachers use assessment data to provide information to plan instruction, monitor student progress, and identify those in need of additional support. This chapter introduces four major types of assessment: screening, diagnostic, progress monitoring, and outcome measures. The concepts presented in this chapter will be further developed as you study each component of literacy instruction.

Chapter 4 Using Standards to Guide Instruction

By law, teachers are to follow their state standards, which are performance expectations for students, ensuring that each student masters the outlined skills by the end of the year. This chapter provides the rationale for state standards and how various kinds of standards should be used. Also explained is the relationship between standards and learning progressions and how both inform planning lessons and formative assessments.

Chapter 5 Foundational Skills for Literacy: Social-Emotional Skills and Language Development

Exemplary preschool experiences are important to set the stage for acquisition of literacy skills. The recommended targets and outcomes of early childhood education are discussed, and two of the most essential foci of these early years are expounded on: developing social-emotional competencies and foundational skills for literacy.

Chapter 6 Oral Language and Listening Skill Development in Early Childhood

The role of the teacher in developing children's ability to use language, both speaking and listening, is discussed further. Specific activities are outlined to promote language development and students' vocabulary, such as conducting interactive read-alouds. You will learn to implement helpful routines, differentiate instruction, and monitor children's progress.

Chapter 7 Phonological Awareness: A Critical Foundation for Beginning Reading

Research has concluded that phonological awareness is an essential component of learning to read. The most difficult and impactful level of phonological awareness is phonemic awareness, an awareness of the smallest units of sound. Teachers must spend sufficient time developing students' phonological awareness of each level, including advanced phonemic awareness. This chapter explains how you can help students develop these skills through explicit and engaging activities.

Chapter 8 Basic Phonics

Phonics instruction and word study increase students' ability to learn to "break the code" and read. Learning the sounds of letters and the symbols that represent the sounds is called phoneme—grapheme correspondence and is necessary to learn to read proficiently. In learning to read, students transition

from phonological awareness to the alphabetic principle to phonics to fluent reading. This chapter provides a guide to what to teach, the sequence in which to teach the skills, and how to teach phonics effectively.

Chapter 9 Advanced Word Study

As students master the foundational reading skills, they should continue to develop tools to read complex multisyllabic words. Advanced word study includes knowledge of and the ability to use strategically the syllable types and division patterns, morphology, etymology, and orthography.

Chapter 10 Beginning Handwriting, Spelling, and Composition Instruction

Writing and reading are reciprocal, each enhancing the other. Teachers can facilitate the readingwriting connection by teaching beginning handwriting correctly. These skills include the physical act of writing correctly (e.g., the correct formation of letters), learning how to spell, and finally, writing sentences to communicate complex thoughts.

Chapter 11 Fluency Instruction

A student's fluency is an indicator of his or her ability to automatically decode words and to comprehend the text. In early elementary school, how well students comprehend what they read depends on how well students accurately and automatically decode words. How fluently an older student reads indicates how well he or she comprehends the text. Learning to read with accuracy, automaticity, and expression leads to increased reading fluency and comprehension.

Chapter 12 A Comprehensive Approach to Vocabulary Development

Wide reading supports vocabulary development and thus reading comprehension. In addition, students need to learn explicit strategies to figure out words they do not know. Strategies include using knowledge of morphemes, the origin of words, and context.

Chapter 13 Comprehension Instruction: Pre-K- 3

The ultimate goal of reading is to comprehend what one reads. However, teachers rarely teach students explicitly how to comprehend what they read. Merely asking comprehension questions, the most common approach, is not teaching students to independently arrive at the meaning of a piece of text. This chapter provides multiple strategies for teaching students how to develop comprehension skills so that they can read text independently and with comprehension.

Chapter 14 Reading Comprehension Instruction: Grades 4–6

A common expression is that in the early grades, "students learn to read," and in the upper elementary grades, students "read to learn." This chapter illustrates how to teach students to read various types of complex texts in different disciplines (e.g., science, social studies, mathematics as well as language arts) with comprehension. The strategies shared have been used successfully with students in Grade 3 through graduate school and can be applied in your classroom.

Chapter 15 Disciplinary Literacy

State standards are requiring students to learn to read and write in the disciplines. This chapter addresses what it means to read and write as a historian, a scientist, a mathematician, as well as in English/Language Arts. Understanding the vocabulary and norms of reading and writing in the disciplines begins in K-6 and becomes increasingly essential as students enter secondary school.

Chapter 16 Strategic and Meaningful Writing Instruction

It is important to provide writing instruction that is strategic *and* meaningful. This chapter explains the critical components of a comprehensive writing program and evidence-based practices to teach each component. Also addressed is how to use assessments to plan instruction and interventions.

Chapter 17 Literacy Instruction for English Learners

In U.S. public schools, students whose first language is one other than English comprise 9.5% of students, or 4.8 million ELs, speaking more than 400 languages. Spanish is the most common language, spoken by 77% of the ELs (National Center for Education Statistics [NCES], 2016). ELs enrich our classrooms and expand the worldview of students and teachers alike. This chapter shares how to teach beginning reading to ELs so that they learn academic English and succeed in school (August & Shanahan, 2008).

Chapter 18 Technology for Elementary Literacy Instruction

There are myriad apps available to support instruction, but all are not equally effective. This chapter includes how to locate and select apps appropriate to the needs of your students. The author shares the results of an extensive review of available apps that focus on each component of literacy instruction.

Chapter 19 Moving Forward: The Role of Reflection in Planning Literacy Instruction

How are all the essential components of literacy and the features of effective instruction integrated into a comprehensive instructional plan? If you feel overwhelmed, this chapter may help alleviate your concerns. Sample daily and weekly lesson plans created by effective, experienced teachers are shared. Ideas to ensure time for small-group targeted instruction and multiple opportunities for students to practice their new skills are provided. Most important, you will learn how to reflect on your teaching and the achievement of your students to adjust your instruction to be more effective. This chapter shows you how to put it all together.

Conclusion Ten Tips to Becoming an Effective Teacher

The final chapter shares 10 tips to becoming an effective teacher. The tips and the knowledge you have gained by studying this text provide the foundation for becoming a truly great teacher.

Organization of Chapters

The chapters start with an authentic classroom scenario. Objectives addressed in each chapter are enumerated. The chapters proceed to address the big ideas questions, including the research supporting each component and how to teach the component. Throughout the chapter, you will find Reflect boxes, which will prompt you to consider the topic at hand and how it might affect your work in the classroom. The chapters conclude with a knowledge assessment consisting of four to six multiple-choice questions to help you reflect on the topics covered, as well as application activities to consolidate and advance your learning. Appendices, references, and a comprehensive glossary are included at the end of the text.

Readers should visit the Brookes Download Hub and search for the title of this book to access an Online Resources Appendix, which offers suggested web sites, readings, and organizations to expand your knowledge. Faculty can also access answers to the knowledge assessment questions, PowerPoint slides that summarize each chapter, and sample course syllabi.

EXPECTATIONS AND RESPONSIBILITIES OF A TUTOR

While studying this text, we recommend that you work with at least one student in Grades K-6. Consider working with a student in Grade 1 or 2 during part of the semester and a student in Grades 4-6 for

another portion of the semester, providing you opportunities to teach both beginning literacy skills as well as more advanced literacy skills.

We recommend that you tutor a student for a minimum of 1-2 hours per week. Your instructor will facilitate placing you with a student and securing the necessary permissions from the school and parent(s)/guardian(s). Suggestions for assessment and instructional activities are provided in the application section of each chapter.

Now is the time to assemble your Tutoring Toolbox. The toolbox consists of materials you bring to every tutoring session. The chapters describe how to use each item. Please see Appendix A for a list of $suggested\ resources\ to\ include\ in\ your\ Tutoring\ Toolbox.$

Remember, your students deserve your respect and best efforts. In reality, your student is your teacher! You must respect the confidentiality of your student; do not discuss your student with anyone other than the student's teacher and your instructor. Do not include your student's name or photograph on anything you submit or discuss in class. If you are allowed to review test data or other personal information about the student, you must keep that information confidential. Student confidentiality is protected by the Family Educational Rights and Privacy Act (FERPA) of 1974 (PL 93-579). Stricter confidentiality laws apply to students who qualify for special education services.

Let us review some additional legislation that has an impact on what and how you teach students, including students with disabilities.

A BRIEF HISTORY OF FEDERAL AND STATE GOVERNMENT IMPACT ON PUBLIC EDUCATION

Education has long been a concern of the federal government, and in the past 50 years there has been an increase in legislation to address these concerns. It is important that you are aware of your responsibilities under the law. This section first includes legislation that addresses how students are to be taught literacy skills. Next, it provides a summary of legislation focused on the education of children with disabilities.

Federal Legislation Focused on Literacy

- The Elementary and Secondary Education Act (ESEA) of 1965 (PL 89-10) was passed by Lyndon B. Johnson. A former teacher, he believed strongly that legislation was needed to provide a more level playing field for all students. The Civil Rights Act of 1964 (PL 88-352) opened the door for ESEA, revealing great inequality in education. As part of his "War on Poverty," President Johnson convinced Congress to provide funding to local and state governments to educate educationally disadvantaged children (ESEA, Title 1).
- The Reading Excellence Act (PL 105-277) was passed in 1998, an initiative of President Bill Clinton, to promote scientific research in reading instruction and to provide grants to states to improve reading skills and instruction of teachers, based on scientifically based reading research (SBRR).

The Report of the National Reading Panel, convened under the auspices of the federal government to review the research on teaching reading, provided a convergence of research on the science of reading, teacher training, and effective instruction (NICHHD, 2000).

ESEA and the Reading Excellence acts were reauthorized in 2001 when President George W. Bush introduced sweeping bipartisan legislation known as No Child Left Behind (NCLB) Act of 2001 (PL 107-110). The overall goal was to ensure that by 2014 all students would be reading on grade level by the end of third grade and that they would continue to read on grade level. Two national initiatives were created to support this goal: Reading First and Early Reading First. Although the country did not reach the goal that all children would read on grade level by third grade, progress was made.

The most recent reauthorization of ESEA, Every Student Succeeds Act (ESSA) of 2015 (PL 114-95), was signed by President Barack Obama. The focus of ESSA is to fully prepare all students for success in college and careers. Schools are asked to implement "evidence-based" interventions and to put money and effort into programs and strategies proven by actual evidence to be effective in improving student achievement. States are required to hold schools accountable for the progress of ELs and students with disabilities. In addition, the performance of these two subgroups must be included in the school rating. Note: In the ESSA, the term *English learner (EL)* replaces the term *limited English proficient* (U.S. Department of Education, 2016).

Funding is provided for professional development activities to improve teacher and leader effectiveness as well as reform teacher/leader certification requirements; induction, residency, and mentoring programs; and recruitment and retention efforts. Finally, states may, but are not required to, use funds to develop teacher and leader evaluation systems based on student achievement growth. In sum, states are accountable for focusing resources on low-performing schools and traditionally underserved students who consistently demonstrate low academic performance and to implement evidence-based interventions (Alliance for Excellent Education, 2015).

Federal Legislation Focused on Students With Disabilities

Today's schools and classrooms are diverse and inclusive, and 14% of all public school students, 7 million, receive special education services. Of students with disabilities, 63% spend 80% or more of their time in general education classrooms, including two thirds (71%) of students with learning disabilities, most of whom have a reading disability (U.S. Department of Education, 2019). Therefore, all educators must understand their legal responsibilities for students with disabilities, and teachers must know how to instruct students. Federal law requires that educators provide students with disabilities a high-quality education, and thus it is important that all educators, including general and special education teachers, support personnel, and administrators, understand key federal legislation that affects education for students with disabilities and know how to implement individualized education programs (IEPs), teach reading effectively, and work with families.

- Education for All Handicapped Children Act of 1975 (PL 94-142) was enacted by the U.S. Congress. Before this law was passed, more than 1 million children with disabilities were denied access to public education. PL 94-142 protected the rights of all children with disabilities by requiring schools to provide each child with a free appropriate education (FAPE) in the least restrictive environment (LRE); that is, in their neighborhood schools and with their peers as much as possible.
- PL 94-142, amended in 1997 (PL 105-17) and again in 2004 (PL 108-446), is now known as the Individuals with Disabilities Education Act (IDEA). IDEA continues to require that schools provide each child with a disability a free, appropriate education in the least restrictive environment. In addition, IDEA 2004 outlines methods to identify students with disabilities and requires that they be taught using scientifically based reading instruction (SBRI) and interventions.

IDEA created special processes to guide districts in identifying students with learning disabilities. The districts must document with progress monitoring data that the students are not making expected progress, despite excellent evidence-based instruction and must be confirmed by the student's lack of response to scientific, research-based interventions. The requirement to determine a student's response to interventions is the basis for two frameworks recently developed: RTI and MTSS, which are discussed later in this chapter.

Laws that affect education for children with disabilities continue to be modified. In March 2017, the U.S. Supreme Court established a higher benchmark for achievement expectations for children with disabilities (Endrew F. v. Douglas County School District RE-1, 2017). Concerned about the poor achievement of students receiving special education services, most of whom are placed in general education classes for the majority of the day, the court ruled that merely accepting minimal progress is "tantamount amount to 'sitting idly'..." and not sufficient. Rather, the Supreme Court concluded that IDEA demanded schools ensure students with disabilities meet higher levels of achievement and that schools are accountable for monitoring and addressing student progress.

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, amended in 2008, prohibits discrimination based on disability.

Section 504 provides protection for individuals with disabilities in programs that receive federal financial assistance, public schools, institutions of higher education, and other state and local education agencies. Section 504 requires schools to provide a FAPE to each qualified student. The major determinant to qualify for 504 is that students have a physical or mental impairment that substantially limits one or more major life activities, including learning. Accommodations may be temporary, such as giving an elevator key to a student who is using crutches or has been ill, or the accommodations may include more permanent support. Often, students with dyslexia and attention-deficit/hyperactivity disorder qualify for accommodations under Section 504, such as additional time to complete work, the opportunity to test in a small group, instructional interventions, and other academic adjustments.

These series of federal laws reinforce the necessity for all educators, general and special education teachers, to deliver instruction that is proven by scientific evidence to promote optimal achievement by each student. Taken as a whole, the federal government continues to promote and require states and schools to provide effective instruction to all students and to be accountable for their progress. One way that progress is measured is by a nationwide outcomes-based assessment, the NAEP.

National Assessment of Educational Progress: The Nation's Report Card

The NAEP is often referred to as The Nation's Report Card. Since 1969, it has measured what students across the nation know and can do. National as well as state and urban district results are available in reading, mathematics, science, and writing for students in Grades 4, 8, and 12. Assessments in reading, mathematics, and writing are administered every 2 years in Grades 4 and 8. The other subjects are tested on a variable schedule.

NAEP scores use percentiles to report results. Based on their scores, students are identified as being at the Basic level, the Proficient level, or the Advanced level. The scores do not represent gradelevel proficiency but rather solid academic performance and competency over challenging subject matter (NAEP, 2019).

The 2019 NAEP scores indicate that the average reading scores for fourth-grade students have not changed significantly in the last 30 years. Reading scores were lower in both Grades 4 and 8 than in 2017. Black students, Hispanic students, and White students, as well as students eligible for the National School Lunch Program, all showed a growing divergence in achievement between the group's lowest and highest achieving students (NAEP, 2019). Scores in 17 states decreased and increased in only state, Mississippi.

The 2019 NAEP scores reported that only 35% of fourth-grade students performed at or above the Proficient level in reading, lower than in 2017. 66% scored at or above the Basic level. Only 9 % scored at the Advanced level. In other words, 65% of fourth-grade students performed below the proficient level of achievement in reading. Scores for the lowest-performing students did not improve compared to 1992 and have declined since 2017. This is of utmost concern because students who are behind in reading in the early grades are unlikely to ever catch up with their peers (Juel, Griffith, & Gough, 1986; Stanovich, 1988).

Third-Grade Retention Laws

A growing number of states hope to improve student achievement by retaining students who are not proficient readers, usually after third grade, to give them an opportunity to raise their reading achievement. However, studies have concluded that grade retention does not positively affect academic achievement and instead appears to have negative consequences, including an increase in dropout rates and students with social-emotional challenges (Davoudzadeh, McTernan, & Grimm, 2015).

Eighteen states and Washington, D.C. require retention of students in third grade who are not proficient in reading; eight additional states allow retention but do not require it (Weyer, 2018).

Table 1.1. Achievement levels

Level	Definition	Examples
Basic	Fourth-grade students performing at the <i>Basic</i> level should be able to locate relevant information, make simple inferences, and use their understanding of the text to identify details that support a given interpretation or conclusion. Students should be able to interpret the meaning of a word as it is used in the text.	When reading literary texts such as fiction, poetry, and literary nonfiction, fourth-grade students performing at the Basic level should be able to make simple inferences about characters, events, plot, and setting. They should be able to identify a problem in a story and relevant information that supports an interpretation of a text. When reading informational texts such as articles and excerpts from books, fourth-grade students performing at the Basic level should be able to identify the main purpose and an explicitly stated main idea, as well as gather information from various parts of a text to provide supporting information.
Proficient	Fourth-grade students performing at the <i>Proficient</i> level should be able to integrate and interpret texts and apply their understanding of the text to draw conclusions and make evaluations.	When reading literary texts such as fiction, poetry, and literary nonfiction, fourth-grade students performing at the Proficient level should be able to identify implicit main ideas and recognize relevant information that supports them. Students should be able to judge elements of author's craft and provide some support for their judgment. They should be able to analyze character roles, actions, feelings, and motives. When reading informational texts such as articles and excerpts from books, fourth-grade students performing at the Proficient level should be able to locate relevant information, integrate information across texts, and evaluate the way an author presents information. Student performance at this level should demonstrate an understanding of the purpose for text features and an ability to integrate information from headings, text boxes, graphics and their captions. They should be able to explain a simple cause-and-effect relationship and draw conclusions.
Advanced	Fourth-grade students performing at the <i>Advanced</i> level should be able to make complex inferences and construct and support their inferential understanding of the text. Students should be able to apply their understanding of a text to make and support a judgment.	When reading literary texts such as fiction, poetry, and literary nonfiction, fourth-grade students performing at the Advanced level should be able to identify the theme in stories and poems and make complex inferences about characters' traits, feelings, motivations, and actions. They should be able to recognize characters' perspectives and evaluate character motivation. Students should be able to interpret characteristics of poems and evaluate aspects of text organization. When reading informational texts such as articles and excerpts from books, fourth-grade students performing at the Advanced level should be able to make complex inferences about main ideas and supporting ideas. They should be able to express a judgment about the text and about text features and support the judgment with evidence. They should be able to identify the most likely cause given an effect, explain an author's point of view, and compare ideas across two texts.

Source: National Assessment of Educational Progress. https://www.nationsreportcard.gov/reading_2017/nation/achievement?grade=4

Many students who are poor readers are from low-income families and are children of color. Students not reading on grade level by the end of third grade are unlikely to read on level without intentional interventions; the gap does not decrease with retention alone. The students are more likely to attend school less frequently, leave school before graduating, and have personal or social adjustment difficulties (Fiester, 2013). The inability to read proficiently limits their employment opportunities and perpetuates the cycle of poverty.

The intent of the third-grade retention policies is to address this serious concern and provide the support necessary for students to attain reading proficiency. However, mandatory third-grade retention is not the answer because there are usually more negative than positive consequences.

Rather, student achievement can be improved by increasing and improving early education, decreasing absenteeism, implementing well-designed summer programs, and ensuring high-quality teaching by parents and teachers (Fiester, 2013; McCombs et al., 2011). Therefore, despite the best intentions, mandated retention is not the answer (Thomas, 2013). Instead, early literacy skills need to be improved through effective, scientifically based, data-informed instruction taught by highly effective teachers and the implementation of an MTSS using evidence-based interventions. These recommendations are discussed in depth throughout the text.

RETHINKING PREVALENT ASSUMPTIONS

Accepted assumptions about reading instruction have stymied the consideration and implementation of reading science. Too often, teachers implement unsupported and ineffective practices that usually are based on overgeneralizations or misunderstanding of established research. Many ineffective practices continue to dominate our teacher preparation programs and, thus, how K-12 students are taught to read (Binks-Cantrell, Washburn, Joshi, & Hougen, 2012; Drake, Pomerance, Rickenbrode, & Walsh, 2018; Joshi et al., 2009; Moats, 1999; Spear-Swerling, 2015). This is a concern because too many students are not proficient readers and there is great urgency to raise their achievement. Because teachers have limited time to teach students literacy skills, they must spend their time implementing the most effective, efficient, evidence-based instructional practices that ensure each student attains proficiency in literacy.

The section that follows examines some of the erroneous assumptions about reading instruction.

Whole Language and Balanced Literacy

The whole language approach is prevalent in our schools. It assumes that offering children a wide variety of interesting, colorful books motivates them to read. Proponents believe that learning to read is as natural as learning to talk, which has been refuted by research (Liberman & Liberman, 1990; Moats, 2000). Children must be taught to read! In the whole language approach, a typical strategy taught to students to decode a word is to look at the first letter and at the picture and guess what the word could be. Other unproven strategies include page-by-page picture walks to predict what is going to happen and identifying words by their shape, or word contours (Dehaene, 2009). Direct, systematic instruction of phonemic awareness and phonics is not a focus of whole language advocates.

Other elements of the whole language approach are supported by research, such as developing children's vocabulary, background knowledge, comprehension skills, and motivation to read.

Balanced literacy was proposed as a compromise between whole language and structured literacy, but this approach means different things to different people. In most balanced literacy classes, phonics is taught in a perfunctory manner as needed and phonological awareness is rarely addressed sufficiently. Teachers tend to have little direct or explicit training in their preparation programs and thus have limited understanding of phonological awareness or phonics (Macdonald et al., 2017; Seidenberg, 2017). In essence, balanced literacy continues to focus on comprehension, not on providing sufficient foundational reading instruction for students to learn to read or write efficiently and effectively as they progress through school. Some students, especially those who come to school with a history of being read to and who have extensive background knowledge, learn to read through the balanced literacy approach. However, these students take longer to learn to read and spell than do students who receive thorough evidence-based instruction in phonological awareness and phonics (Kilpatrick, 2015). What about the thousands of other students without enriched home environments or those at risk for reading difficulties? They become the education casualties reflected in our national reading scores and dropout rates.

Learning Styles

A persistent myth among educators is that students learn best when taught in their preferred learning style (i.e., visual, auditory, or kinesthetic), a conclusion that has not been validated by research (Kavale, Hirshoren, & Forness, 1998; Pashler, McDaniel, Rohrer, & Bjork, 2008; Stahl, 1999). Students do have differing cognitive abilities, but there is a lack of empirical evidence to assess learning styles and to determine how to use the styles to inform instruction (MacDonald et al., 2017; Riener & Willingham, 2010). However, providing opportunities for students to learn and practice in multiple modalities (e.g., multisensory) based on the content to be taught does result in improved learning. Teachers need to be aware of the nuanced differences in teaching to a particular learning style versus providing instruction integrating multiple modalities as appropriate for the content being taught (Rogowsky, Calhoun, & Tallal, 2015; Willingham, 2009).

Dyslexia

There are several assumptions about the manifestations of dyslexia, what causes dyslexia, and the relationship of dyslexia and giftedness. One myth is that a typical manifestation of dyslexia is reversing letters or writing backward. Although some students with dyslexia do reverse letters when learning to write, typically developing young students do also until around age seven. As students read more, most develop the ability to match a letter with its sound, learning to differentiate the letters and write the letters correctly. Another myth is that dyslexia is caused by vision problems necessitating extensive vision therapy or the use of color lenses. These theories were rejected by science years ago. As you will learn in this text, the main underlying cause of dyslexia is difficulty in language processing such as phonological awareness, not vision (Cowen, 2013, 2018; Fletcher & Currie, 2011; Penczek, 2013).

An alternative myth is that people with dyslexia have unusual gifts, such as in art, business, or creative areas. The rate of giftedness and excellence exhibited by people with dyslexia is at the same prevalence as other people. Like all students, those with dyslexia have a range of strengths and challenges. Evidence is not conclusive that having dyslexia increases the likelihood of being gifted (International Dyslexia Association [IDA], 2013).

Discovery Learning

Discovery learning refers to the practice of having students learn skills on their own with limited guidance from the teacher. Other names for this approach are problem-based learning, inquiry learning, experiential learning, and constructivist learning (Clark, Kirschner, & Sweller, 2012). Several studies have reported that unassisted discovery of new skills does not benefit novice learners (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011; Clark et al., 2012). Rather, incorporating the features of effective instruction, such as modeling, scaffolding, and providing feedback and full guidance, does benefit students. This research applies to novice learners, not experts. Novice students need to learn some basic information explicitly, the most effective and efficient approach. Experts, however, who have mastered a concept or skill benefit from limited guidance. Therefore, teachers need to be aware of the status of each student and provide explicit instruction to novices and intermediate learners (Archer & Hughes, 2011; Clark et al., 2012).

WHAT AND WHOM SHOULD EDUCATORS BELIEVE?

Mark Seidenberg, a cognitive neuroscientist, provided a warning for us all when he wrote that "elevating a folk psychology about how we read based on intuition and observation to the status of educational dogma does not make it valid" (Seidenberg, 2017, p. 262). It is a continuous challenge for educators to determine what teaching practices are based on scientific research, and the challenge is made more complex when new research becomes available and teachers have to adapt their instruction once more. There are, of course, teaching activities that seem to work for individual students in your class (referred to as the "it works in my room" phenomenon), but such activities cannot be promoted as the most effective with most students, across contexts and abilities, without rigorous research.

This text provides instructional approaches for literacy that are supported by research. The next section outlines instructional considerations, selected because of a convergence of supporting research, and expanded upon in the rest of the text.

INSTRUCTIONAL CONSIDERATIONS

There are four aspects of instruction to consider as you plan reading instruction: structured literacy, selection of materials, differentiated instruction, and MTSS. The remainder of the text addresses exactly how to incorporate these practices in your instruction.

1. Implement an Evidence-Based Approach: Structured Literacy

This text is based on the most recent, scientific, evidence-based, proven research that, when implemented with fidelity, results in most students becoming proficient in literacy. The approach espoused here is generally referred to as structured literacy.

The Ladder of Reading (see Figure 1.1) illustrates why an approach such as structured literacy is essential to ensure that all children learn to read. As highlighted by the ladder, about 40% of students learn to read relatively easily (although in some schools that number is much less). The other 60% depend on excellent, evidence-based instruction to teach them to read.

The Center for Effective Reading Instruction offers a definition of structured literacy:

Structured literacy is an approach to reading instruction that is characterized by the provision of systematic, explicit instruction that integrates: (1) listening, (2) speaking, (3) reading, (4) writing. A Structured literacy approach emphasizes the structure of language across the speech sound system (phonology), the writing system (orthography), the structure of sentences (syntax), the meaningful parts of words (morphology), the relationships among words (semantics), and the organization of spoken and written discourse. (Center for Effective Reading Instruction, 2018)

The Report of the National Reading Panel (National Institute of Child Health and Human Development, 2000) supported a structured literacy approach in which the components of reading, validated by scientific research, were taught explicitly and systematically. Students were not to guess what word

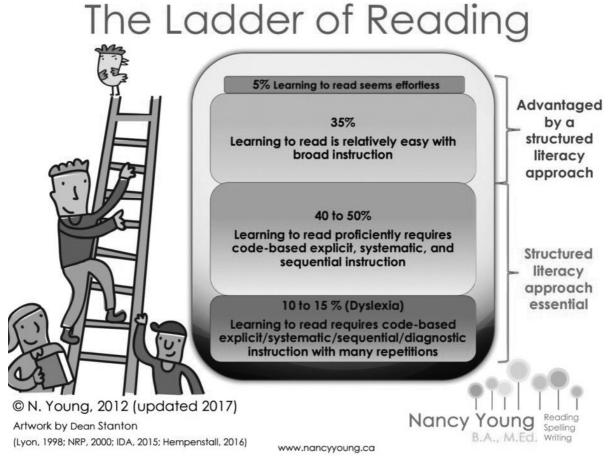


Figure 1.1. The Ladder of Reading. (Reprinted with permission from N. Young, 2012, updated 2019. Artwork by Dean Stanton.)

a string of letters represented, but to apply knowledge of the letter–sound system (phoneme–grapheme correspondence) and sound out the word. When students learn to crack the code, they comprehend what they read, read more, and continue to become better readers (Blachman, Ball, Black, & Tangel, 2000; Shaywitz & Shaywitz, 2004). ESSA, the overarching federal education law requires schools implement evidence-based interventions.

Contrary to what some believe, structured literacy is not boring, nor is it drill and kill. Multiple opportunities for practice are incorporated for students to master a concept, and practice increases skill and automaticity. Anita Archer refers to practice as "drill and skill" or even "drill and thrill" as students become excited and motivated when they become proficient (Archer & Hughes, 2011, p. 21). When taught correctly with fidelity, teachers do not rely on worksheets, nor do they read a script (though they must teach the program as designed). The instructional sequence is developed based on student needs and is delivered through systematic and explicit instruction (IDA, 2018b; Seidenberg, 2017). Students are engaged, motivated to learn, and successful. Teachers are provided with the tools and training required to implement structured literacy and a curriculum based on the science of reading. The research supporting the structured literacy approach is highlighted throughout this text as the components of evidence-based, effective instruction in reading and writing are discussed.

2. Select Evidence-Based Instructional Materials and Strategies That Are Validated by Scientific Research

Selecting a curriculum, instructional materials, and strategies to teach is of utmost importance. Having a sound curriculum to guide instruction is the best approach. Teachers cannot be expected to develop their own instructional sequence and instructional materials. Yet, to be effective, teachers must avoid selecting materials based on marketing, popularity, or recommendations of a colleague. Rather, teachers need to evaluate commercial products, using relevant scientific research, which often proves a challenge.

There are two practices that will help you determine if the products are based on reliable and valid research. The first is to determine if the scope and sequence of the reading skills being taught throughout the materials follows a plan such as discussed in this text for each component.

Ask questions of publishers, such as the following:

- How has the curriculum or strategy been rigorously tested by scientific research?
- How many and what type of students were included in the research?
- Are the student demographics similar to mine?
- · Has the research been replicated, or repeated, with many different types of groups of students?
- Is there a comparison control group that does not receive instruction using the materials being considered, as well as an experimental group that does?
- Was student progress measured over time?

Reflect

What curriculums and commercial materials have you worked with in the past? How did you evaluate those materials? How might you evaluate a similar product in the future?

Ask the publisher, you are considering, to provide written answers to these questions and others.

The second way to determine if a particular method or curriculum is effective is to regularly monitor the progress of your students. If the data indicate that your students are not making sufficient progress, the materials may not be appropriate for them or you may not be implementing them with fidelity—that is, in the way the materials were designed to be taught. You may be able to supplement the curriculum by including additional instruction in concepts not thoroughly presented (e.g., phonemic awareness), or you may need to obtain an entirely different set of materials that explicitly teach targeted skills.

The strategies and activities presented in this text are based on rigorous, scientific research and are highly likely to benefit your students when implemented with fidelity.

3. Differentiate Instruction

Differentiation addresses the wide range of needs presented by students who are diverse in their language and culture, educational experiences, background knowledge, and amount of support they need. Some students need an accelerated curriculum, such as students who are academically advanced, whereas others need more time and repetition, such as students with dyslexia or other reading difficulties (IDA, 2018a; Tomlinson, 2014). General education elementary teachers are responsible for teaching all students with myriad needs and differentiation is critical.

Universal design for learning (UDL) offers a framework for planning lessons for students with different needs. Based on how humans learn, UDL helps to "optimize teaching and learning for all people" (CAST, n.d.; Hall, Meyer, & Rose, 2012). UDL is referred to in ESSA and is defined as:

Universal Design for Learning (UDL) means a scientifically valid framework for guiding educational practice that (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient. (Higher Education Opportunity Act of 2008 [PL 110-315])

UDL has three learning guidelines to consider when planning lessons for a diverse group of students. Consider:

- The WHY of learning: engaging learners to determine their purpose, interest, and motivation for learning (affective networks)
- The WHAT of learning: representing information and content in different ways (recognition networks)
- The HOW of learning: differentiating the ways students can express what they know (strategic networks) (CAST, n.d.)

When planning lessons, teachers design multiple ways for students to engage in the lesson and to represent (demonstrate) what they have learned. For example, the teachers may engage students by using manipulatives that offer kinesthetic support, such as plastic letters or blocks, to learn how to segment sounds in words. The instructional routine may include multiple means of engagement, a principle of UDL. To assess what students have learned, teachers can implement the UDL principle of multiple means of action and expression. For example, teachers can substitute a paper-and-pencil test with opportunities for students to demonstrate what they have learned by explaining it to a peer, illustrating the new learning, or writing a summary. Although first developed to support students with disabilities, teachers are finding that the UDL theory of optimizing learning is effective with all students (Gronneberg & Johnston, 2015).

4. Response to Intervention and Multi-Tiered Systems of Support

RTI begins with high-quality, evidence-based instruction in the general education core classroom. It is a general education initiative to identify and support students with learning and behavior needs (Gersten et al., 2008; Lemons, Vaughn, Wexler, Kearns, & Sinclair, 2018; McIntosh & Goodman, 2016; Spear-Swerling, 2015). RTI typically comprises three tiers in which students are provided increasingly intensive interventions, for example in smaller groups, for more instructional time and with more explicit instruction (see Figure 1.2):

- Tier 1: effective instruction in the general education classroom in which all students participate
- Tier 2: intervention instruction provided in small groups of identified students in the general education classroom or another setting
- Tier 3: intense intervention instruction for identified students, usually provided by a specialist, for example, a reading specialist, an interventionist, or a special education teacher

Multilevel prevention system

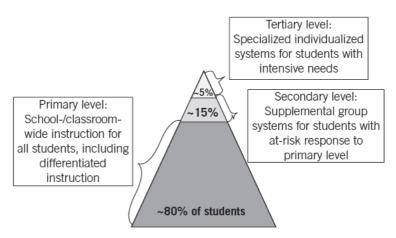


Figure 1.2. Levels of Response to Intervention. (From National Center on Response to Intervention [2010]. What is RTI? Washington, DC: U.S. Department of Education, Office of Special Education Programs, National Center on Response to Intervention.)

RTI is often compared to a medical model. The medical model seeks to prevent disease by providing excellent preventative health care. For example, it is recommended that children be vaccinated and everyone have regular check-ups (e.g., Tier 1: excellent initial instruction and universal screening for all students). If a problem is identified, the patient is provided treatment and monitored (e.g., Tier 2: differentiated instruction and intervention for about 12%–15% of students). If, unfortunately, the patient does not respond to treatment, intensive care may be required (e.g., Tier 3: intensive interventions in small groups and for more instructional time); usually for about 3%–5% of students.

MTSS is also a prevention framework consisting of early identification and timely interventions in increasingly intense tiers of instruction. MTSS is conceived to be broader than RTI, involving whole-school initiatives (e.g., dropout prevention), professional development for all educators, school improvements in culture and leadership, and integration of services, for example, screening of English proficiency. All educators in the school play a role in implementing MTSS. When implemented well, achievement scores improve and the number of students identified as needing special education decreases (McIntosh & Goodman, 2016; Vellutino & Scanlon, 1987). The caveat is that MTSS is difficult to implement successfully and must be led by a strong instructional leader who ensures that all of the supports and procedures are in place. Those key supports and procedures are:

- (1) Universal Screening to assess all students in the school, typically at the beginning, middle, and end of the year. The purpose is to identify which students may need support.
- (2) Progress monitoring assessments administered every few weeks with students and more often when students are receiving intervention instruction. The purpose is to determine if the instruction is effective.
- (3) Tiered levels of intervention may be interpreted differently in different districts/states, and typically involves 3 Tiers and increasingly intensive instruction.
- (4) Data-based decision making involves collecting data about a student's skills through progress monitoring and interpreting that data so that it can be used to inform instruction over time. (Arden & Pentimonti, 2017; Mellard, 2017)

CONCLUSION

This text explains how educators can fulfill their legal responsibilities outlined in the legislation described and their instructional responsibilities guided by evidence-based research. Each topic overviewed in this chapter is discussed in depth, ensuring that you have multiple opportunities to acquire knowledge and practice opportunities to apply what you learn.

KNOWLEDGE ASSESSMENT

1. Federal legislation focused on literacy mandates that schools must implement interventions that are:

a. The same for all students

b. Evidence-based

c. Approved by the district

d. Practical

2. Grade retention has been shown to:

a. Increase literacy skills

b. Improve long-term outcomes for students

c. Increase social-emotional challenges

d. Decrease literacy skills

3. A key element of structured literacy is that it involves:

a. Systematic, explicit instruction

b. A balanced literacy approach

c. A focus on the student's learning style

d. Drill and kill

4. The three tiers in MTSS refer to:

a. Intensity of instruction

c. Learning styles

b. Seating arrangements

d. Activity level required

APPLICATION ACTIVITIES

With a Colleague

1. Study the Science of Reading graphic developed by the Reading Initiative for Student Excellence, Arkansas, available at http://www.arkansased.gov/public/userfiles/Learning_Services/RISE /SCIENCE_OF_READING.pdf

With your colleague, summarize the key components in the Science of Reading graphic and prepare a 5-10 minute explanation to share with the class.

- 2. Review Figure 1.2, which conceptualizes a continuum of services outlined by the RTI/MTSS frameworks. Discuss and prepare to share with your colleagues the similarities and differences, and advantages and disadvantages, of each model.
- 3. Read Teaching Reading Is Rocket Science by Louisa Moats. Available at http://www.readingrockets .org/pdfs/reading_rocketscience_2004.pdf

Take notes using a double-entry journal (Appendix Figures B.1 and B.2). Discuss with a partner some new information you learned. Does teaching reading seem like rocket science to you now? Explain your answer.

On Your Own

1. Listen to the Educate podcast: Hard Words: Why Aren't Our Kids Being Taught to Read? (September 10, 2018, by Emily Hanford), available at https://www.apmreports.org/educate-podcast

A print version, not as comprehensive as the podcast, is available at: https://www.apmreports .org/story/2018/09/10/hard-words-why-american-kids-arent-being-taught-to-read

- 2. Reflecting on the podcast, list 1) three things you learned; 2) two questions you have, and 3) three topics you want to learn more about. Keep this list in a convenient place so that you can refer back to it throughout your studies.
- 3. Create your Tutoring Toolbox (see Appendix A).

With Your Student

Spend 2 hours observing literacy instruction in a classroom and interviewing the teacher. Look for the following:

- 1. Every 5 minutes, count how many children were not engaged in academic activities. What were they doing? Why do you think they were not engaged?
- 2. Describe the types of small groups the teacher had organized. Ask the teacher:
 - a. How do you decide which student belongs in which group? What data do you collect and how?
 - b. How do you determine which interventions to use?
 - c. How do you know if your instruction is working for each student?
 - d. What do you do when a student is not making progress and you do not know what else to do?

Please see the About the Online Materials page at the front of the book for directions on how to access the Online Resources Appendix for more web sites, readings, and organizations to visit to expand your knowledge on the topic of this chapter.