CHAPTER

5

Reading: Word Recognition

OBJECTIVES

Upon completion of this chapter, the reader should be able to:

1. Describe common reading problems and challenges experienced by students with special needs.
2. Discuss the central role of reading instruction within the school curriculum and identify key distinctions between decoding emphasis and holistic instructional programs.
3. Identify appropriate assessment strategies for determining instructional needs and evaluating student progress.
4. Identify key areas of word-recognition instruction and describe effective strategies within these areas.
5. Define *fluency*, identify reasons for its importance, and discuss strategies to promote fluent reading.

The ability to read is essential for living in today's world; personal independence requires at least functional literacy. Failure to read restricts academic progress because proficiency in Math, English, Science, or Social studies depends in part on an ability to read. Most careers require at least minimal reading skills. Reading is also a key to personal and social adjustment and to successful involvement in community activities. As a consequence, this text includes two chapters on reading, with an introduction and a focus on word recognition and fluency in this chapter and reading comprehension as the emphasis of Chapter 6. Reading, reading failure, and ways to teach reading are dominant issues for teachers working with students with special needs.

READING AND PROBLEMS

The five key components of reading include phonemic awareness, phonetic analysis, fluency, vocabulary development, and comprehension (National Reading Panel [NRP], 2000). Building on this foundation, Figure 5–1 outlines these five areas as well as several related word analysis strategies (e.g., structural analysis and contextual analysis) that are addressed within this text and in Chapter 6.

Problems in Reading

The acquisition of reading skills is a challenging task for children. As opposed to oral language acquisition, reading acquisition has been characterized as an "unnatural" process (Shaywitz, 2003) that creates difficulties for students at the emergent literacy, beginning reading, and fluent reading levels. Thus before considering the problems that children may experience, it is helpful to first conceptualize what children achieve at these three levels. Table 5–1 provides an overview.

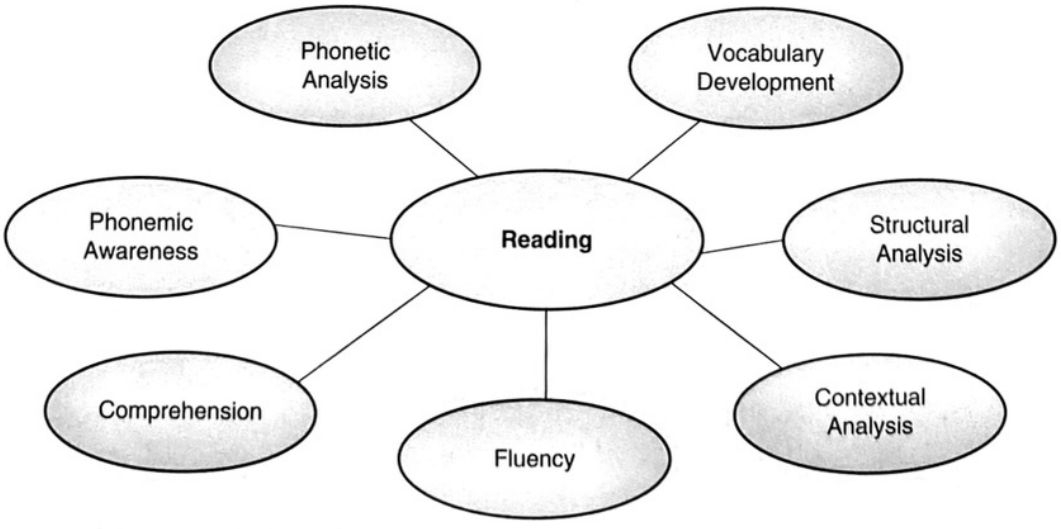

FIGURE 5–1 Key Reading Components

Source: Models in Education (p. 2), by E. A. Polloway and A. L. Meade, 2009, unpublished manuscript, Lynchburg College, Lynchburg, VA.

TABLE 5–1 Literacy development stages

Emergent	• Notice environment print
	• Show interest in books
	• Pretend to read
	• Use picture cues and predictable patterns in books to retell the story
	• Identify some letter names
	• Recognize 5–20 familiar or high-frequency words
Beginning	• Identify letter names and sounds
	• Match spoken words to written words
	• Recognize 20–100 high-frequency words
	• Use the beginning, middle, and ending sounds to decode words
	• Apply knowledge of cueing systems to monitor reading
	• Self-correct while reading
	• Read slowly, word by word
	• Read orally
	• Point to words when reading
	• Make reasonable predictions
Fluent	• Identify most words automatically
	• Read with expression
	• Read at a rate of 100 words per minute or more
	• Prefer to read silently
	• Identify unfamiliar words using cueing systems
	• Recognize 100–300 high-frequency words
	• Use a variety of strategies effectively
	• Often read independently
	• Use knowledge of text structure and genre to support comprehension
	• Make inferences

Source: Information from Tompkins, Gail E. (2006). *Literacy for the 21st Century: A Balanced Approach*, 4th Edition, © 2006, p. 91. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

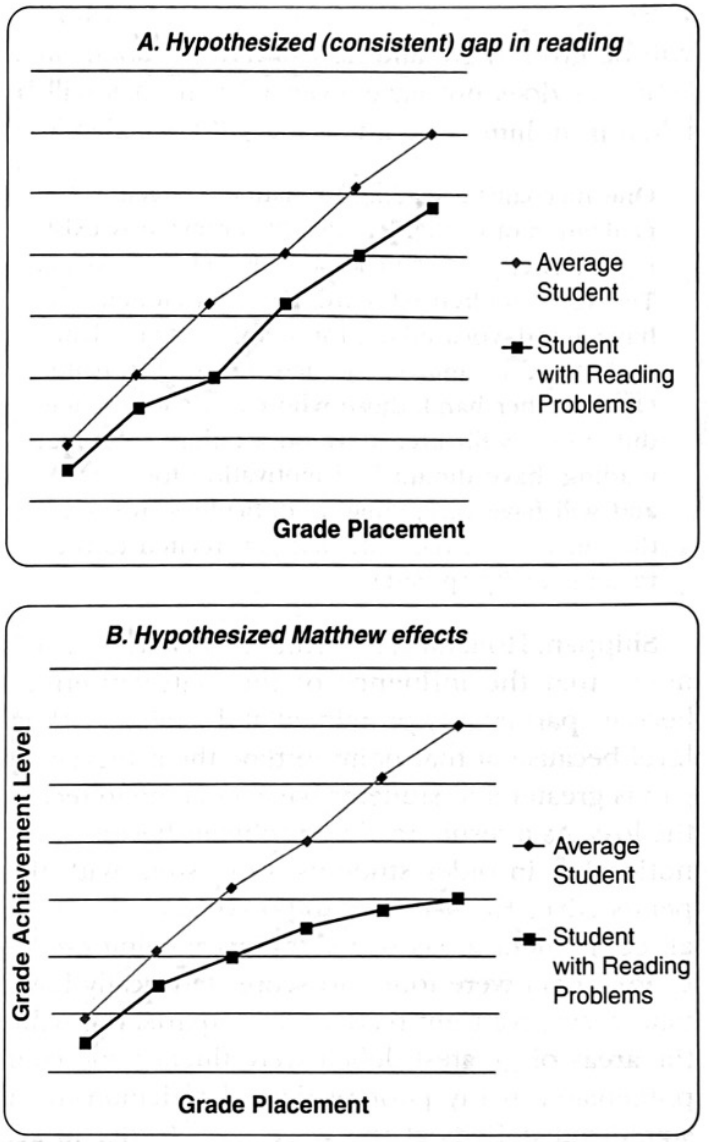

FIGURE 5–2 A Model for Matthew Effects in Reading

Source: Models in Education (p. 1), by E. A. Polloway and A. L. Meade, 2009, unpublished manuscript, Lynchburg College, Lynchburg, VA.

Media reports underscore the problems that students experience in reading. Common estimates of the scope of reading problems include:

- Up to 20% of the total school population
- Up to 50% of the students in some inner-city schools
- 75% of individuals identified as juvenile delinquents
- 85% of students with disabilities

Students who progress at a slower rate in spite of reading interventions have been referred to by a variety of terms. These include difficult-to-remediate, treatment resisters, nonresponders, or lower responders (Vaughn et al., 2009). The key question, though, is not how they are labeled but rather how we understand their challenges as a basis for effective education.

A critical focus for problem readers is the gap between their age and grade placement and their reading achievement level and, consequently, the gap between students with reading difficulties and those who are progressing in a typical fashion. Figure 5–2 illustrates two models of underachievement. The first reflects a static gap that may typify some students who fall behind and stay behind their peers.

The second model, however, shows an increasing gap developing as students proceed through school. This gap is unfortunately common to many students with reading disabilities. It has been referred to as a reflection of *Matthew effects,* based on the biblical

verse from Matthew 25:29: "For everyone who has will be given more and he will have an abundance. Whoever does not have, even what he has will be taken from him." As Stanovich (1986) explained:

> One mechanism leading to Matthew effects is the facilitation of further learning by a previously existing knowledge base that is rich and elaborated. . . . The very children who are reading well and who have good vocabulary for reading more, learn more word meanings, and hence read even better. On the other hand, those who experience reading difficulties will often develop a failure set about reading, have diminished motivation for success, and will have compounding difficulties over time, thus increasing the potential gap related to their reading ability. (p. 381)

Shippen, Houchins, Steventon, and Sartor, (2005) noted that the influence of the Matthew effects become particularly prominent at the middle school level because at that point in time the achievement gap is greater and students have less time to recoup the loss. As a result, reading problems become most noticeable in older students. Consistent with this perspective, Hock et al. (2009) concluded that "in all component areas of reading, struggling *adolescent* readers were found to score statistically lower than their proficient reader counterparts. . . . While the areas of greatest deficit were fluency and comprehension, many poor readers also demonstrated significant deficits at the word level (order to act, decoding, word recognition, and rate) (p. 34).

The Alliance for Excellent Education (2005) further noted:

> Students are less motivated to read in later grades. While these problems may coexist with any of the difficulties cited above, a lack of incentive and engagement also explains why even skilled readers and writers often do not progress in reading and academic achievement in middle and high schools. The proportion of students who are not engaged or motivated by their school experiences grows at every grade level and reaches epidemic proportions in high school. (p. 3)

A number of hypotheses have been offered as to the source of reading problems. One common problem cited often, though not consistently confirmed by research, is the complexity of the English language (e.g., 1,120 ways to spell 44 phonemes). (See Table 5–2 for a listing of all English language phonemes.)

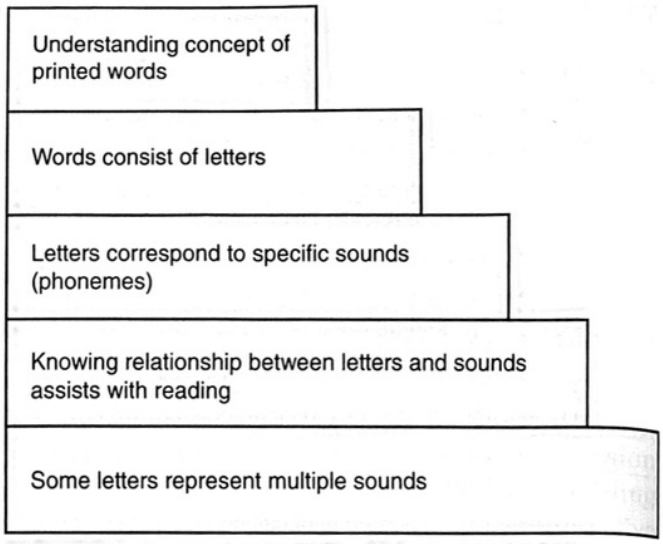

FIGURE 5–3 Elements of the Alphabetic Principle

Source: Models in Education (p. 3), by E. A. Polloway and A. L. Meade, 2009, unpublished manuscript, Lynchburg College, Lynchburg, VA.

A broader view was espoused by Mathes and Torgesen (1998), who identified three stumbling blocks to successful reading:

- Understanding and using the **alphabetic principle** that written spellings represent spoken words, words are made up letters, the letter system has a purpose and letters correspond to specific sounds, and ultimately that 26 letters (graphemes) are used to map the 44 sounds (phonemes). (See also Figure 5–3.)
- Transferring spoken language comprehension skills to reading and learning new strategies.
- Lacking the motivation to read or failing to develop an appreciation of its rewards.

Regardless of the inherent reasons for reading problems, the critical element is our educational response (e.g., intensity of instruction, time spent on instruction). One variable is academic engaged time, which is critical to success in learning to read. Given the fact that not all of the time available in the school day actually involves engagement, the key is to maximize the amount of time available and therefore ensure that students have the opportunity to be highly engaged in the process of reading.

E. Swanson (2008) reported on 21 observation studies of students with learning disabilities and classrooms. Four key areas of concern were noted. First, the students spent limited time engaged in instruction in key areas of reading (e.g., phonics, fluency, comprehension). Second, the grouping

TABLE 5–2 English language phonemes

Consonant Phonemes		Vowel Phonemes	
Phonetic Symbol	*Spelling Example (Common Graphemes)*	*Phonetic Symbol*	*Spelling Example (Common Graphemes)*
/p/	pie	/ei/	cake, rain, day, eight
/b/	bag	/i/	tree, eat, key, happy
/t/	tap	/ai/	my, tie, fine
/d/	dog	/ou/	go, toe, coat, snow
/m/	mat	/u/	boot, true, blew
/n/	nail, know	/æ/	cat
/k/	cat, duck, key	/e/	wet
/g/	go	/t/	sit
/ŋ/	ring	/o/	box
/f/	fit, phone, cuff	/^/	cup
/v/	van	/ɔ/	book
/s/	sun, miss, science, city	/s/	sir, her, fur
/z/	zoo, buzz	/ɔ/	for, saw, paul
/θ/	teeth	/a/	car
/ö/	the, breathe	/ɔi/	coin, boy
/ʃ/	sheep, brush	/au/	cow, out
/ʒ/	measure		
/dʒ/	jump, bridge		
/l/	lake, bell		
/r/	rain, write		
/j/	yes		
/w/	wet		
/m/	where		
/h/	hat		

Source: From *Phonological Awareness: From Research to Practice*, by G. Gillon, 2004, New York: Guildford Press: Reprinted with permission.

structures that were used were often inappropriate and did not frequently include small-group instruction. Third, comprehension instruction was not only limited but also primarily focused on literal-type questions. Fourth, students were not engaged in actual reading of textual material for a sufficient enough time frame to make a difference in terms of, for example, fluency.

Disability Subgroups

The majority of contemporary special education research on reading problems has focused on students with learning disabilities. As a consequence, much of the preceding discussion highlighted concerns about students who have a learning disability in reading.

On the other hand, attention to the reading achievement and instruction of students with intellectual disabilities (ID) has not been as extensive (L. M. Joseph & Seery, 2004). Because reading challenges are significant for these students, their need to reach a level of minimum literacy (including the ability to develop a sight vocabulary, decode, and comprehend) remains clear and is consistent with many of the students' capabilities (Katims, 2001).

Research on reading instruction for individuals with ID, and in particular for those with more significant disabilities, has been relatively limited for many years. However, a number of recent papers have provided research-based perspectives on effective instruction for these students. While a full discussion of these considerations is beyond the scope of this chapter, the reader is referred to the excellent discussions on research-to-practice provided by Allor, Mathes, Roberts, Jones, and Champlin (2010); Cooper-Duffy, Szedia, and Hyer (2010); Knight, Browder, Agnello, and Lee (2010); and Allor, Mathes, Jones, Champlin, and Cheatham (2010).

Students with emotional and behavioral disorders (E/BD) also typically experience significant problems in reading even if these problems may not have been the primary basis for their referral. With regard to students with E/BD, J. R. Nelson, Benner, and Gonzalez (2005) noted:

> Unfortunately children with or at risk of emotional disturbance (ED) face enormous challenges learning to read. Many of these children have reading problems. . . . Further compounding the reading problems of children with or at risk of ED is a growing body of evidence that suggests that they are likely to respond poorly to generally effective prereading and reading intervention. (p. 3)

GENERAL READING CONSIDERATIONS IN THE CURRICULUM

The importance of reading for all students is universally accepted. Reading must be a significant part of the school day, and teachers should seek ways to integrate reading instruction into other areas of the curriculum. Given the frequency of difficulties among students with disabilities, additional practice to maintain and refine skills is essential. In addition, such opportunities provide a place for students to generalize their reading ability. Thus, adolescents can improve their comprehension skills while acquiring basic vocational competencies from trade books; younger students can benefit from vocabulary development while learning basic science concepts.

Agreement on how best to teach reading (particularly beginning reading) has been debated at least for the last 70 years. The key emphases in the reading debate have been decoding-based emphases (e.g., phonetic analysis approaches that teach sound–symbol correspondences) and holistic approaches (e.g., placing primacy on meaning). The following discussion briefly highlights these concerns.

Decoding-based programs typically emphasize a skills-based, "bottom-up" approach to reading. Usually focused on teaching sound–symbol correspondences in language (e.g., c-a-t→cat), they are characterized by the direct teaching of a sequence of skills that begins with an emphasis on the phonological basis of language and thus provides a foundation for the subsequent transfer of skills to reading comprehension. This general approach is consistent with research on phonemic awareness difficulties in students with special needs.

The **holistic approach**, most often considered within a **whole language** emphasis, focuses on the meaningfulness of language, stresses the importance of the child's language as a bridge to literacy, and includes speaking, listening, and expressive writing as integral parts of literacy development. This approach builds on the diversity of literary experiences that children are exposed to prior to entering school. For example, as a result of having been read to by parents, young children often develop an awareness of the structure of texts and understand the implicit relationship between speech and print.

Pressley and Fingeret (2005), in their review of research, noted that those young students who have difficulties and are struggling are the ones who benefit most significantly from decoding skills instruction at the primary grades. Students with disabilities require intensive, direct instruction on basic skills that may not be available in classrooms that have adopted a purely whole language focus. At the same time, they also indicated that those who are of high ability may benefit more from emphases that are inclusive to a greater extent of holistic instruction and tied more directly to, for example, language experiences. (See the nearby Teacher Tips for a further discussion of a balanced approach.)

E. A. Polloway et al. (2012) concluded that students require comprehensive instructional programs (e.g., decoding and comprehension emphases; teacher- and student-directed instructional experiences) derived from validated approaches to instruction. Thus, teachers of students with special needs must be prepared to focus on teaching

TEACHER *Tips* Elementary Level

Balanced Literacy Instruction

Pressley, Roehrig, Bogner, Raphael, and Dolezal (2002) identified the following elements of balanced instruction based on their observations of effective teachers:

- **Phonemic Awareness**—Instruction in phonemic awareness is a significant component of a balanced program. Students who acquire phonemic awareness skills in the primary grades generally experience fewer long-term reading difficulties.
- **Word-Recognition Instruction**—The synthetic phonics approach and related instructional techniques have generally proved more successful in balanced programs than whole word recognition (learning words as wholes), especially with struggling readers.
- **Vocabulary Teaching**—Vocabulary instruction has been found most effective when the meanings of words are taught directly. Explicit vocabulary instruction has been shown to improve reading comprehension abilities and consequently to produce better readers.
- **Comprehension Strategies**—Some effective techniques for improving comprehension include modeling and explaining strategies (e.g., predicting, questioning, and gaining clarification). Once these strategies have been adequately explained by the teacher, students should demonstrate and continually practice these skills independently (see Chapter 6).
- **Self-Monitoring**—Students in a balanced program learn to self-monitor while reading. Instruction in self-monitoring involves teaching students to reread words and passages to facilitate accurate decoding and comprehension.
- **Extensive Reading**—Students who read a large number of quality books and articles exhibit gains in word recognition, vocabulary, comprehension, and general knowledge.
- **Teaching Students to Relate Prior Knowledge While They Read**—The ability to relate the content of a text to prior knowledge is not automatic skill. Students can increase their ability to make these connections through "why-questioning." The use of *why* questions encourages the reader to utilize previously acquired information in order to better understand content.
- **Motivating Reading**—An essential strategy for literacy instruction involves motivational techniques for struggling readers who may feel they lack the capacity for literacy. The following techniques have proven beneficial: teach students to believe that they can improve their skills with effort; provide a variety of enriching reading opportunities; relate literacy instruction to content areas; and encourage cooperative learning and avoid competition.

Source: Information from "Balanced Literacy Instruction," by M. Pressley, A. Roehrig, K. Bogner, L. M. Raphael, and S. Dolezal, 2002, *Focus on Exceptional Children, 34*(5), 1–14.

word-recognition and analysis skills as well as on the promotion of meaning through well-designed reading comprehension programs. In summary, Moats (2003) noted that validated approaches to reading instruction include:

- Direct teaching of decoding and comprehension skills
- Phonemic awareness instruction
- Systematic, explicit instruction in decoding
- Exposure to varied texts
- Vocabulary instruction on word meanings, structure, and origins
- Comprehension strategies for prediction, summarizing, clarification, questioning, and visualization

This chapter next examines assessment in reading in general and instruction of skills related to word recognition in particular as well as fluency. Chapter 6 then focuses on reading comprehension. The approaches discussed here provide a foundation for the development and implementation of comprehensive reading programs.

ASSESSMENT

Reading presents the reader with many challenges and consists of many essential components. The teacher must understand the many facets of the reading task and know how to determine which skills each student does or does not possess. The teacher

also needs to determine each student's reading level before implementing any program. The central purpose of reading assessment is instructional planning.

The National Joint Committee on Learning Disabilities (NJCLD; 2008) noted that assessment should be "designed to gather multiple sources of qualitative and quantitative information, including measures that reflect student background knowledge, readability of textbooks used in different subject areas, classroom expectations, information about the use of literacy skills outside the school setting, and the need for in the level of ability to use assistive technology. . . . [Further, the information should be] integrated so that data interpretation results in a clear profile of the student's strengths and weaknesses, describes the literacy needs of the student, and provide specific recommendations that are tied to instruction, learning/behavioral supports, and transition planning" (p. 214).

Informal and formal assessment instruments can assist the teacher in determining an individual's level of reading competency. Instruments of both types can help determine an approximate reading level for determining where to begin instruction and how to begin to analyze specific strengths and weaknesses.

Classroom-Based Assessment

A key concern in assessment is the ongoing use of performance data as teachers monitor the progress of students and make determinations concerning their specific instructional needs. Complementing these data with information about strengths and interests will provide a strong foundation for instructional planning (NJCLD, 2008). D. Fuchs and Fuchs (2005) noted that "professional pedagogy demands ongoing monitoring of student progress, irrespective in of instructional program, so that non-responders can be identified promptly for more tailored attention" (p. 42).

Informal reading inventories (IRIs) typically contain a word-recognition inventory, oral reading passages, silent reading passages, and comprehension questions to accompany the passages. Three classifications of reading ability can be determined from these inventories. The *independent reading level* refers to vocabulary that a student can read without teacher assistance and content that can be comprehended at a high level while still identifying approximately 95% of the words correctly. Library books and seatwork instructions should be at the student's independent level. *The instructional level* refers to vocabulary and content that the student can read with some outside assistance. Students should be 85 to 95% accurate at this level. *The frustration level* is that at which the student cannot read with any degree of independence, accurately identifying fewer than 80% of the words. These ranges are included for illustration purposes; views vary on precisely what percentage of accuracy is associated with any given level.

An IRI can also provide for an analysis of errors, which can give added information on specific word analysis difficulties; for this reason mispronounced words should be recorded phonetically. The errors can be classified in common areas, such as incorrect sounds, full reversals, partial reversals, or incorrect beginning, medial, or final consonants. A typical scoring sheet is shown in Figure 5–4.

An oral reading inventory samples a student's oral reading and comprehension capabilities at various levels. The format, administrative procedures, and scoring practices may vary. However, it is advantageous to record the student's reading so that the teacher can listen critically and analyze errors as a basis for instruction. IRIs can also assess silent reading. Achievement and skill difficulties can be determined by students' responses to comprehension questions.

Curriculum-based measurement (CBM) assesses a student's academic progress by sampling his or her mastery of the actual curriculum. For example, to assess reading progress, 1- to 3-minute oral reading samples can be taken under the assumption that as the decoding process becomes more automatic, more attention can be allocated to comprehension. CBM can enable teachers to, for example, select text material at appropriate levels, monitor fluency, track oral reading miscues, and provide a basis for student self-monitoring of skill, acquisition, and reading progress (Unrau, 2004). CBM procedures do not emphasize assessing a student's performance in relation to a standardized sample but rather focus on the ability to perform the specific skill stated in the accompanying behavioral objective. An example of the use of the CBM process in reading is provided in Table 5–3.

Checklists developed from a summary of competencies are also an effective informal procedure. The teacher selects a particular area to assess and, during a classroom lesson, observes and records a student's

FIGURE 5–4 Oral Reading Scoring System

1. Mispronunciations: Write the child's pronunciation above the word.

   (E.g., They bought the bread at the store.)

2. Assistance: Write the letter A above each word pronounced for the child after allowing five seconds to elapse.

   (E.g., Hawkeye performed the delicate operation.)

3. Omissions: Circle each word or portion of word that the student omits.

   (E.g., After the race, the runner was winded.)

4. Letter or Word Inversions: Use the traditional typographical mark to indicate this type of error.

   (E.g., The ball seemed to fly forever—it was a homefun!)

5. Self-correction: Write the letter C above the word if the student corrects an error on his/her own.

   (E.g., They were late but they arrived just in time to ride the train.)

6. Insertions: Use a caret to indicate additions inserted by the reader.

   (E.g., She was afraid to go into the haunted house.)

7. Hesitations and Repetitions: Though not errors, these can be noted by a check mark and a wavy line, respectively.

   (E.g., The dog scratched and itched until they put on his flea collar.)

Source: From *Language Instruction for Students with Disabilities* (3rd ed., rev.), by E. A. Polloway, L. Miller, and T. E. C. Smith, 1999, Denver, CO: Love Publishing (p. 208).

TABLE 5–3 Step-by-step: Curriculum-based measurement (CBM)

Step 1: Select a passage of about 600 words from . . . text designed for the grade level the students are currently in or are about to enter. Make sure the passage has a reasonable starting point with respect to content and does not include a large number of specialized words. . . .
Step 2: For the student copy, type the text in approximately the same font and size as the original.
Step 3: For the teacher's copy, produce the same text as you did for the student copy; however, on the right hand side of the page, make a column for line-by-line cumulative word counts. . . . On the bottom of the page, create a rate box with space for the following information: Words Read in Two Minutes, Total Number of Scored Miscues, Total Number of Words Correctly Read in Two Minutes, and Average Number of Words Correctly Read in One Minute (or Correctly Read Words/2).
Step 4: Using the student copy of the text, the student reads aloud for two minutes. When exactly two minutes are up, put a slash mark after the last word read.
Step 5: As the student reads, the teacher marks miscues on the teacher's copy by putting a line through miscued words or writing in an inserted word. Miscues are responses to texts that differ from expected responses. . . . Miscues include use of nonsense words, substitutions (e.g., ran for rain), omissions, reversals (words not read in the correct order . . .), inserted words, and no attempt to say a word. However, self-corrected words, repeated words, hesitations, words read with an accent or dialect, and improper intonation resulting from ignored punctuation makes are all scored as correct. . . .
Step 6: Observing a reader's problem-solving strategies while reading a text is quite instructive. Teachers should observe carefully what readers do when they encounter a difficult word. Do they try to sound it out, use context cues, ask for help, give up? Do some of the mistakes make sense? . . . How are errors corrected? . . .
Step 7: After a student reads the text for two minutes, the teacher calculates the student's oral fluency rate or number of words correctly read in one minute. This is done by dividing the total number of words read correctly in two minutes by 2. . . .
Step 8: Oral fluency rates should be kept for each . . . student. The same text can be used at three points over the traditional academic year to measure oral fluency development: September, January, and May.

Source: Information from Unrau, Norman, *Content Area Reading and Writing: Fostering Literacies in Middle and High School Cultures*, 1st Edition, © 2004, pp. 102–103. Reprinted by permission of Pearson Education Inc., Upper Saddle River, NJ.

skills on the checklist. For example, in observing comprehension skills during a small-group reading lesson, the teacher might focus on the specific skills reflected in Figure 5–5.

The teachers evaluate the lessons through the use of CBM when they are completed and try alternative methods if necessary.

Tailoring reading lessons to meet each student's needs can be facilitated by efficient, simple record-keeping procedures. Figure 5–6 represents a form to use to analyze a student's strengths and weaknesses in various reading areas. To use this form, teachers should establish criteria for the evaluation of which skills require practice or have been

FIGURE 5–5 Checklist of Comprehension Skills

Student Names	Main Idea	Sequence	Details	Cause and Effect	Fact v. Opinion
Martha	X	X	X	X	X
Raul		X	X	X	
Lucinda	X	X	X		
Harry		X	X		

FIGURE 5–6 Reading Assessment Summary

Student's name: _____ Age: _____
Class placement: _____ Teacher: _____

Key: N = Not acquired P = Needs practice M = Mastered

Reading levels: Independent _____ Tests used: IRI _____
Instructional _____ Survey _____
Frustration _____ Diagnostic _____
Other _____

Sight word vocabulary: SORT ____ Dolch list____ Other____

Phonics:
Consonants

b	c	d	f	g	h	j	k	l	m	n	p	q	r	s	t	v	w	x	y	z

Vowels

	a	e	i	o	u	y
Long sound						
Short sound						

Digraphs

ch	sh	th	wh

Variant vowels

ar	er	ir	or	ur	au	al	on	ow	oi	oy

Blends

bl	cl	fl	gl	pl	sl	br	cr	dr	fr	gr	pr	tr	wn	ap	st

Comprehension: Factual questions _____ Main idea _____
Inferential questions _____ Sequence of events _____
Application questions _____ Cause and effect _____

Reading interests: _____
Comments: _____
_____

FIGURE 5–7 Class Profile of Word Analysis Skills

Skills		Students: Lyndsay P.	Karen C.	Mike E.	Sharon G.	Jason T.	Marcus W.	Tony S.
Reading levels	Independent							
	Instructional							
Consonants	Initial consonants							
	Final consonants							
	Consonant blends							
Vowels	Long sound							
	Short sound							
	Variant							
	Prefixes							
	Suffixes							
Comments								

Key: N = Not acquired
P = Needs practice
M = Mastered

mastered. Figure 5–7 is a sample class profile of word analysis skills in a format that is appropriate for other reading skill areas as well. Figure 5–8 presents some specific questions that teachers can then use to translate assessment information into individualized teaching plans.

Once information about each student is organized and easily accessible, a teacher can individualize group instruction. Within a reading group, for example, a few students might be assigned a literal-level purpose in reading a selection whereas other students might be required to make inferences. The group can discuss the story together with teacher guidance.

Formal Instruments

Formal tests provide specific guidelines or tools for screening and other administrative purposes (e.g., eligibility). The instruments typically provide teachers with standard score and grade-level information and may provide data on specific skills.

Some formal instruments can be used to analyze skills in the same way as informal inventories are used. If word lists or paragraphs are read orally by a student, the teacher phonetically records the errors at the time of the reading or later from a tape recording. Once categorized, the errors provide a picture of the student's needs.

The purposes of formal instruments are on a continuum ranging from surveying global reading performances to pinpointing specific strengths and weaknesses. Diagnostic tests are used primarily to identify specific problems and to highlight skills needing remediation. Table 5–4 summarizes information on selected formal reading assessment instruments.

FIGURE 5–8 Assessment Considerations to Assist in Instructional Planning

1. What are the student's specific strengths?
   a. What specific phonetic knowledge is mastered: letter names? letter sounds? blending?
   b. What specific knowledge of structural analysis is mastered: plural endings? prefixes? suffixes? compound words?
   c. What sight-word categories are mastered: Dolch list? content-area words?
   d. What specific comprehension skills are mastered: vocabulary? getting the main idea? summarizing? making inferences? recognizing cause and effect?
   e. Does the student comprehend best when reading orally or silently?
   f. What is the student's reading level?
2. What skills are priority concerns (based on the state standards)?
3. What is the next needed skill in each area that can be taught to the student at this time?
4. What is the student's attitude toward reading and reading instruction?
5. What reading program is most appropriate for the student?
6. What independent practice and reinforcement activities can the student engage in successfully?
7. What serves as a reinforcer for the student?

TABLE 5–4 Formal reading assessment instruments

Test Name	*Areas of Focus*	*Ages*
Gray Oral Reading Tests—4e (GORT-4) (Wiederholt & Bryant, 2001)	Measures oral reading fluency and oral reading problems. Relative to word recognition, error analysis gives performance levels for meaning similarity, function similarity, graphic/phonemic similarity, and self-correction.	6–0 to 18–11
Gray Diagnostic Reading Tests—2e (GDRT-2) (Bryant, Wiederholt, & Bryant, 2004)	Includes four reading subtests: letter and word identification, phonetic analysis, reading vocabulary, and meaningful reading.	6–0 to 18
Woodcock Reading Mastery Tests—Revised—Normative Update (WRMT-R-NU) (Woodcock, 1998).	Individual test that measures reading achievement and provides specific diagnostic information. Subtests include visual-auditory learning, letter and word identification, and word attack (as well as word comprehension, and passage comprehension).	5–0 to 75+
Wide Range Achievement Test—4e (WRAT-4). (Wilkinson & Robertson, 2006)	The subtest can be administered in approximately 10 minutes. It is composed of a group of words that the student reads orally. Words pronounced incorrectly are marked phonetically to aid in determining the need for remedial instruction.	
Test of Phonological Awareness (TOPA-2t) (Torgesen & Bryant, 2004)	Measures young children's awareness of beginning and ending sounds. Intended for K-level students who can benefit from phonological awareness instruction. An early-elementary version of the test is intended to assess difficulties present in first and second graders.	Grades K–2
Lindamood Auditory Conceptualization Test—3e (LAC–3) (Lindamood & Lindamood, 1998a).	Criterion-referenced instrument focused on the discrimination of one speech sound or phoneme from another and the segmentation of the spoken word into component phonemic units. Intended to identify students at risk for reading and spelling problems because of poor phoneme–grapheme correspondence ability and ability to distinguish and manipulate sounds.	
Slosson Oral Reading Test—Revised (SORT-R3) (Slosson & Nicholson, 2002)	Individualized test using lists of 200 sight words. Word lists progress in difficulty from primer to high school.	

WORD-RECOGNITION INSTRUCTION

The remainder of this chapter is devoted to instructional strategies for enhanced word-recognition skills. The majority of students with special needs will experience problems in decoding because of difficulties related to phonemic awareness and to using sound–symbol correspondences to phonetically analyze words and thus will profit from direct instruction in those areas as well as from instruction in other word-recognition strategies (see Figure 5–9).

Phonemic Awareness

A crucial foundation to reading is the ability of young students to learn and use the productive relationships between the sounds and symbols of their language system. Teachers must attend to this area if problems are to be prevented in children who are at risk for reading failure and if remediation is to be achieved for these young readers who fail to make satisfactory progress.

The importance of facility with phonology is best understood by first considering the importance of phonemic awareness. Troia (2004) described it as "the deepest level of phonological awareness, which is most crucial to success in reading (and spelling). It facilitates the process by which many beginning readers identify printed words, converting single letters and letter strings into their corresponding phonemes and then re-assembling the sounds to pronounce the written word" (p. 1).

Key concerns within phonemic awareness include syllable awareness, segmentation related to the first sound in a word, onset-rhyme awareness, onset-rhyme blending, onset-rhyme segmentation, the blending of individual sounds, and the segmentation of individual sounds (Bursuck & Damer, 2007). Thus students must learn to *discriminate* between words and between sounds, *identify* certain sounds within words, *manipulate* the sounds in words, *identify* phonemes (e.g., ax = a/k/s, bake = b/a/k, thing = th/i/ng), and *isolate* sounds in words, such as in the initial, medial, and final positions.

Because the phonological system is the primary problem area for students with reading disabilities, it requires explicit instruction for those who do not learn to read independently. Instruction based on these considerations promotes the ability to be aware of phonemes in words and serves as a foundation for the use and application of sound–symbol correspondences in reading as a component of phonetic analysis.

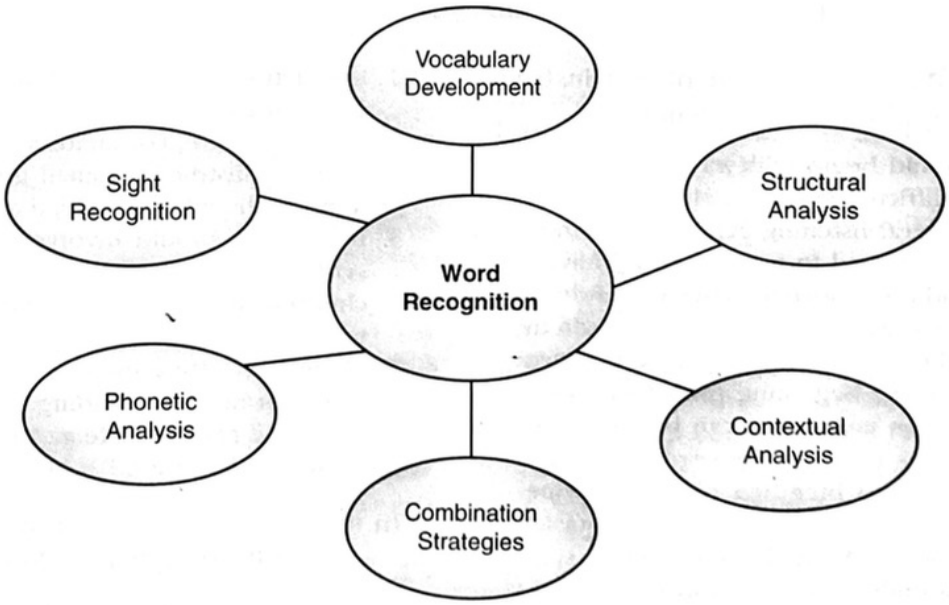

FIGURE 5–9 Word-Recognition Emphases

Source: Models in Education (p. 4), by E. A. Polloway and A. L. Meade, 2009, unpublished manuscript, Lynchburg College, Lynchburg, VA.

CULTURALLY RESPONSIVE CLASSROOMS *Tips*

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The field of reading instruction has begun assembling a synthesized understanding of English language learners (ELLs) and instruction in phonemic awareness and word recognition (e.g., August & Shanahan, 2006). The same principles of instruction for English speakers can be applied to ELLs, with certain adaptations; however, ELLs can be very different from one another in terms of their literacy backgrounds. Children who begin learning English after they are already literate in their first language have already developed certain word-level skills and may not need the same types of instruction as a native English speaker first learning to read.

One important finding is that teachers do not have to wait for English learners to acquire English proficiency before beginning phonemic awareness instruction. However, teachers need to keep in mind certain differences between their native English speakers and their English learners as well as certain instructional caveats.

- The sounds of English are likely different in some way from the sounds of the student's first language. This means that children may have difficulty hearing and/or producing certain English sounds.
- After learning about sound differences between the child's first language and English, teachers will need to help children both hear these differences and account for these differences in writing. Teachers should not overemphasize standard English pronunciations. Students who have repeated exposures to the sounds and pronunciations of English through planned oral activities and wide reading will steadily improve in their pronunciations.
- If English language learners have developed high levels of phonological awareness in their first language, it is likely that they will also have high levels in English, particularly if their first language used an alphabetic writing system as opposed to a logographic system such as Chinese.

One challenge in word-recognition instruction with ELLs is that these children are much more frequently attempting to decode or recognize words for which they have no spoken counterpart. When an English-speaking student tries to decode the word *moon*, successful decoding efforts lead to a known word and its accompanying denotations and connotations. For the English language learner, decoding the word *moon* may be the same as decoding the nonsense word *poom*: the end goal of attaching decoded word to meaning is not achieved. Teachers can address meaning through approaches such as picture support and simple explanations and/or definitions.

Teachers should keep in mind that studies have shown that effective instructional practices have enabled English language learners who have initially lagged behind their English-speaking peers to perform as well as, and sometimes even better than, those same peers in a full range of literacy tasks. The key to these improvements is systematic instruction.

Torgesen and Mathes (2000) identified instructional principles for phonemic awareness:

1. Instruction should begin with easier and move toward more difficult tasks. . . . Many programs begin with general listening activities designed to help children attend to sequences of individual sounds, and then move to activities that help children become aware of individual words in sentences, and then syllables in words. . . . Once children have some beginning proficiency with sound comparison tasks, they can be moved to training activities that involve segmenting beginning sounds and blending of onset-rhyme patterns (i.e., c-at, d-og). The final series of tasks should be those that involve completely segmenting the sounds in simple words, or blending all the sounds, or manipulating the sounds in words (e.g., "What word do we have if we say *cat*, but don't say the /k/ sound?").
2. Instruction . . . should take place for 15 to 20 minutes every day throughout the kindergarten year. . . . For children who require more intensive instruction, small group or individual tutoring should be provided daily. . . .
3. Instruction should involve both *analytic* and *synthetic* activities. Analytic activities require children to identify individual sounds within whole words (e.g., "Tell me some words that begin with the same sound as *dog*,"). . . . Synthetic activities involve blending together separately presented phonemes (e.g., "What word do these sounds make: /f/a/t/?"). (pp. 45–48)

In its review of studies on phonemic awareness, the National Reading Panel (2000) concluded that:

- Instruction in phonological awareness is effective in enhancing the ability of children to attend to and manipulate speech sounds in words.

- Instruction in the manipulation of phonemes—the sounds of language—subsequently assists students in learning how to read.
- Instruction is most effective when the focus of instruction is on the manipulation of phonemes with letters and when children are taught within small instructional groups.
- Phonemic awareness is always a means and not an end, and consequently the inclusion of letters is important so that the phonemic skills can be transferred to reading and writing tasks.
- The provision of early instruction of phonemic awareness is not a guarantee of later success in literacy.

Troia (2004) added these caveats to the research on phonemic awareness:

- Spontaneous transfer from a skill such as segmentation to another such as blending is rare.
- Segmentation training, either in isolation or along with instruction in blending, yields the most positive effects on reading achievement.
- Some students do not respond favorably to explicit instruction in segmentation and blending and thus continue to experience deficits in phonemic awareness, reading, and/or spelling.
- Even when gains are realized, they may diminish within 18 months unless the training is followed by additional instruction in phonics.

Phonetic Analysis. Teaching **phonetic analysis** (e.g., phonics) builds on phonemic awareness as students learn how to apply their knowledge of the phonology to the written word. While phonemic awareness provides an explicit awareness of a word's sound structure such as through phoneme blending (e.g., /c/ /a/ /t/ = cat) and through phoneme segmentation (e.g., bat=/b/ /a/ /t/), phonics provides instruction in critical sound–letter (phoneme–grapheme) correspondences (Gillon, 2004).

Phonetic analysis provides a strategy to attack unknown words by applying a learned rule. Bursuck and Damer (2007) noted that systematic phonetic analysis programs are ones in which teachers explicitly teach students to relate sounds and letters, to blend sounds into words, and to break words into sounds. In so doing, they also help the students understand the relationships between sounds and letters, promote the application of phonics skills as they are reading words and sentences, and stress alphabetic knowledge, phonemic awareness, vocabulary development, and text reading along with systematic phonetic analysis instruction.

Phonetic analysis can be used as an initial step in a developmental program with young students just beginning to learn to read, or it can be used as a remedial technique with students who have developed a strong sight vocabulary but lack the skills needed to analyze unfamiliar words. The teacher's goal is to produce fluent readers with the necessary skills to decode unknown words. Once decoded, the words should become part of the students' sight-word vocabularies so that they can be read without analysis when next encountered.

The Center for the Future of Teaching and Learning (1996) emphasized that explicit instruction should be provided on the sound–spelling correspondences that are observed most frequently in the English language. Successful ability to decode based on these sound–spelling relationships is necessary for learning to read and to eliminate the need for the virtually infinite number of potential relationships that could be incorporated within an instructional program.

The two most common forms of phonetic analysis are analytic phonics and synthetic phonics. Pullen and Lloyd (2008) defined the former as "teaching students to analyze letter-sound relations in previously learned words to avoid pronouncing sounds in isolation." They described synthetic phonics as "teaching students explicitly to convert letters into sounds (phonemes) and then blended sounds to form words" (p. 2).

Phonics Instructional Sequence This sequence for learning phonetic skills is adapted from the classic work of Orton (1964):

1. /b/, /s/, /f/, /m/, /t/ in initial and final positions
2. Short /a/
3. All consonants except the five already learned
4. Short vowels (/o/, /i/, /u/, /e/)
5. Consonant digraphs (/sh/, /ch/, /th/, /wh/)
6. Initial consonant blends (/bl/, /br/, /st/)
7. Final consonant blends (/nd/, /nk/)
8. Long vowels (final /e/, double vowels)
9. *R*-influenced vowels (/er/, /ir/, /ur/, /ar/)
10. Suffixes (*-s*, *-ing*, *-ed*)
11. Vowel teams (/ai/, /ea/, /ow/, /ea/)
12. Vowel diphthongs (/oy/, /au/)
13. Prefixes (*e-*, *pre-*, *un-*)

This sequence introduces five consonants, then short /a/. It allows the formation of short words quickly (e.g., *bat, fat, tab*) to provide immediate decoding experience.

Typically, consonant sounds are taught initially because they are easier than vowels to learn, are most consistently associated with only one sound, and are the first sound in most words. Teachers first must ensure that students can discriminate between the sound being taught and different consonant sounds at the beginning of a word. Consonant sounds can be taught with keywords and pictures. Individual consonants and digraphs should be introduced one at a time and then reviewed along with the sounds previously taught. Before moving to vowel sounds, students should have mastered common consonant sounds in the initial and final positions and should be able to blend teacher-pronounced sounds into words. Once vowel sound instruction is initiated, this sequence is effective to integrate vowel and consonant instruction:

1. Provide the child with auditory experiences to discriminate between similar vowel sounds. A student must be able to hear how a sound is different and unique before he or she can reproduce it in a new word or identify it in a word to be spelled.
2. Teach students to blend a vowel sound to final consonants and blends, and to spell these stems (e.g., *-ack*).
3. Teach students to use onset-rhyme to blend initial consonant sounds to these stems (*b* + *ack* = *back*).
4. Present words containing the vowel sound being taught and have the student rehearse: Find the vowel, cover all the letters that come before it, pronounce the vowel stem, add the initial consonant or blend, pronounce the whole word.
5. When the child can analyze words (which in isolation contain the sound in question), provide guided opportunities that allow the child to use the new sound to decode unknown words in context.

Direct Instruction A key instructional strategy for teaching reading skills, and particularly for teaching decoding skills, is direct instruction (see Chapter 2). The attributes of direct instruction include the fact that it is an explicit and systematic approach to teaching that is focused on clear outcomes. The teacher is directly responsible for the instructional activities, but high student engagement is a key aspect. Construction begins with ensuring student attention and then a precise sequencing of content is essential. Teachers monitor student responses and provide corrective feedback. Most important, direct instruction is intensive and explicit. By actively engaging students in requiring higher rates of appropriate responses and by carefully matching instruction to student ability and skill level, teachers are able to ensure that the instruction provided is consistent with student needs. The use of instructional prompts to support learning, the systematic fading of the prompts, and the provision of feedback also are critical (Rock et al., 2008).

National Reading Panel The National Reading Panel (NRP; 2000) evaluated research on phonetic analysis instruction and reported that:

- Programs that involve the use of systematic phonics instruction make larger contributions to achievement than do programs that provide no such instruction or unsystematic phonics instruction.
- Systematic phonics instruction can be effective through a variety of delivery modes including tutorial approaches, small-group instruction, and class instruction.
- Instruction is most effective when taught to younger children (i.e., Grades K–1). It should begin with basic foundational knowledge, which includes instruction on letters and phonemic awareness.
- Systematic phonics instruction results in significant improvement in the reading performance of young children at risk for developing further problems and also for readers with disabilities. However, in general, low-achieving readers nevertheless make less progress.
- Rather than interfering with students' ability to read and comprehend textual material, systematic phonics instruction has a positive effect on their growth in this area as well.

The NRP (2000) concluded with this caution: "phonics teaching is a means to an end. . . . Students need to be able to blend sounds together to decode words, and they need to break spoken words into the constituent sounds to write words. Programs that focus too much on the teaching of letter-sound relationships and not enough on putting them to use are unlikely to be very effective" (section 2, p. 96).

TEACHER *Tips* Secondary Level

Word-Identification Instruction

1. The goal of word-identification instruction for secondary struggling readers is to help them develop and apply strategies for tackling unfamiliar or difficult words accurately, effortlessly, and rapidly.
2. Instructional guidelines for teaching word-identification skills include:
   - Provide explicit, systematic instruction.
   - Directly teach words from the content-area materials that students have difficulty reading.
   - Help students develop basic word-identification skills, including the following:
     - Sound–symbol correspondence
     - Recognition of phonetically regular consonant-vowel-consonant words
     - Recognition of some sight or high-frequency words
3. Research-based interventions for teaching word identification skills to secondary readers include:
   - **Word-identification strategy:** Students learn how to break words into parts to facilitate decoding. It is helpful if students know prefixes and suffixes and have some knowledge of phonics.
   - **Overt word parts strategy:** Students circle word parts at the beginning and end of the word and underline letters representing the vowel sounds in the remaining part of the word. Students pronounce the parts fast to say the word.
   - **Long words strategy:** Students use their knowledge of sound–letter correspondences, orthographic patterns, structural analysis, and content-specific vocabulary to form words.

Source: Information from "Secondary Students with Learning Disabilities in Reading: Developing Word Identification Skills," by D. P. Bryant, J. Engelhand, and L. Reetz, 2002, *CLD Infosheets*, retrieved November 3, 2002, from *http://www.cldinternational.org/cl@aH47Gt6iaSFzg/Pages/* wordID.htm.

Phonics, Decoding, and Adolescent Learners. The nearby Teacher Tips provides a context for instruction in decoding skills for older students. In addition, Lewkowicz (2002) highlighted some key *misconceptions* related to teaching decoding skills to adolescents:

1. *If a student has not mastered decoding skills by Grade 8, he or she never will.* The spelling of English polysyllables is a lot more regular and predictable than most people think. If students can't decode these words, they need to be given a more effective set of rules and techniques.
2. *Besides the few students with decoding difficulties, remedial classes are full of students who can sound out words effectively but can't comprehend. Remediating word-attack problems will merely move students from the former into the later group.* Improving comprehension and improving decoding skills should not be regarded as competing approaches. Decoding helps students recognize words that are in their oral vocabulary, and this recognition can be critical to understanding. It also plays an important role in gradually elevating words to sight word status, thus speeding up comprehension.
3. *Decoding ability is no longer important after middle grades because there is an increasing load of unfamiliar vocabulary, especially in content area reading. Thus it is better to emphasize getting meaning from the context.* Context should not be regarded as a substitute for decoding ability. Frequently the context is of limited value, especially if it contains other words that the student doesn't recognize. But it is important to realize that decoding skills also work in tandem with context use to make valuable contributions to vocabulary growth.
4. *Older students dislike word-attack training.* The key is to use a more effective approach that results in actual word recognition. Success can be enormously motivating. (adapted from p. 29)

Sight-Word Vocabulary

For learners who are disabled, a key component is learning **sight words**. Through a whole-word approach students learn to recognize important, high-frequency words without analysis. Students must achieve **automaticity** with the sight words they have learned—they must recognize them immediately and automatically—to be able to move continuously through a written passage. Fluent readers use their sight vocabulary consistently, applying phonetic analysis only to new words. Sight-word development

often focuses on the recognition and rapid recall of words in text. However, another critical aspect is the development of word knowledge or vocabulary. Because of its clear ties to comprehension, we consider *vocabulary development* in detail in Chapter 6.

To be remembered, sight words must already be in the learner's speaking and comprehension vocabulary. The most common source of sight words is from high-frequency word lists (see Table 5–5). As can be noted in the list, a substantial number of these words are phonetically irregular, do not lend themselves to decoding, and thus are best learned as sight, or whole words. If a basal series is used, words from the particular program become a focus of sight-word instruction.

With all students, but especially with those experiencing reading difficulty, a variety of strategies should be used to teach sight words and success is often a function of multiple exposures to achieve automaticity. Thus the challenge of sight-word instruction is to provide students with multiple exposures to words through varied means.

Fernald Method. The Fernald method (Fernald, 1943) is a classic multisensory approach combining language experience with visual, kinesthetic, and tactile (VAKT) instructional techniques. The program consists of four steps: eliciting a word from the student, writing it large enough for the student to trace, saying the word as the student traces the word, and having the student write the word from memory. These steps are intended to provide ways to develop a sight vocabulary by offering the students multiple ways of experiencing the word. Words can then be alphabetically filed in a word bank. When several words have been learned, the student uses them to dictate a story to the teacher. As the student progresses, the procedure can be modified in various ways. For example, tracing can be done with letters made of sandpaper, smooth paper laid on sandpaper, or sand sprinkled on glue. Teachers should focus on the potential benefits of teaching new words through multiple means. Rather than rigid adherence to the sequence outlined by Fernald, teachers are encouraged to investigate multisensory strategies that are effective for individual students and enhance their recognition of sight words.

Functional Reading for Adolescent Students

Functional reading refers to a level of literacy necessary for information and protection. An understanding of this concept is particularly important for teachers of secondary students who must decide how to teach reading. Instruction at this level raises a number of difficult questions: Which reading program should the current teacher select? Is it best in the limited time remaining to teach functional reading so that students will know some words for their own protection and safety? Or is there still time to teach students decoding strategies, aiming toward an acceptable level of literacy?

After weighing these factors, the teacher can decide to concentrate efforts on functional reading, exert a final effort toward teaching remedial skills, or focus primarily on one option but include the other in a less intensive form. Students need to understand clearly what the goal is and how it will be measured at specific intervals. When goals are organized into small steps, adolescent students are motivated by their progress, which suggests that the problems they have faced unsuccessfully throughout their school careers may have solutions.

Reading for protection requires minimal but practical competence. Generally, this is the level of reading achievement that enables minimal survival in today's word-dependent world. Survival words should be taught as sight words, consistent with the strategies described earlier in the chapter. The teacher should provide actual experiences that demonstrate the word's meaning, produce a concrete object, or identify a special characteristic of the concept. A list of 25 survival words (from an overall list of 50) is provided by E. A. Polloway and Polloway (1981). A parallel set of survival phrases is available from the same source.

Fortunately, most students with disabilities learn to read well beyond the level of survival words. The next stage of functional reading addresses what the world of work requires and thus focuses on sufficient skills to fill out applications and related forms, pass a driver's test, follow simple factor check-in directions, order from a restaurant menu, and handle similar life tasks.

Teachers can use a combination of strategies to teach this level of functional reading. Using a sight-word approach, the specific vocabulary of applications and forms can be taught. The most important step is teaching students to generalize this knowledge by providing practice with the variety of formats and situations that they are likely to encounter. Many workbooks contain samples of forms and applications.

TABLE 5–5 300 high-frequency words

a	children	great	looking	ran	through
about	city	green	made	read	time
after	come	grow	make	red	to
again	could	had	man	ride	toad
all	couldn't	hand	many	right	together
along	cried	happy	may	road	told
always	dad	has	maybe	room	too
am	dark	hat	me	run	took
an	day	have	mom	said	top
and	did	he	more	sat	tree
animals	didn't	head	morning	saw	truck
another	do	hear	mother	say	try
any	does	heard	mouse	school	two
are	dog	help	Mr.	sea	under
around	don't	hen	Mrs.	see	until
as	door	her	much	she	up
asked	down	here	must	show	us
at	each	hill	my	sister	very
ate	eat	him	name	sky	wait
away	end	his	need	sleep	walk
baby	even	home	never	small	walked
back	ever	house	new	so	want
bad	every	how	next	some	wanted
ball	everyone	I	nice	something	was
be	eyes	I'll	night	soon	water
bear	far	I'm	no	started	way
because	fast	if	not	stay	we
bed	father	in	nothing	still	well
been	find	inside	now	stop	went
before	fine	into	of	stories	were
began	first	is	off	story	what
behind	fish	it	oh	sun	when
best	fly	it's	old	take	where
better	for	its	on	tell	while
big	found	jump	once	than	who
bird	fox	jumped	one	that	why
birds	friend	just	only	that's	will
blue	friends	keep	or	the	wind
book	frog	king	other	their	witch
books	from	know	our	them	with
box	fun	last	out	then	wizard
boy	garden	left	over	there	woman
brown	gave	let	people	these	words
but	get	let's	picture	they	work
by	girl	like	pig	thing	would
called	give	little	place	things	write
came	go	live	play	think	yes
can	going	long	pulled	this	you
can't	good	look	put	thought	you're
cat	got	looked	rabbit	three	your

Source: Information from Tompkins, Gail E., *Literacy for the 21st Century: A Balanced Approach*, 4th Edition, © 2006, p. 201. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

Structural Analysis

Structural analysis skills enable students to use larger segments of words for decoding cues. Recognition of root words, compound words, prefixes, suffixes, contractions, and plurals allows students to use clusters of letters to assist in reading a new word. Structural analysis is an essential word-recognition strategy that directly influences fluency; continued letter-by-letter phonetic analysis slows the reading process and will inhibit comprehension. The strategies suggested for teaching phonics also apply to teaching the structural elements related to meaning units, that is, morphemes in words (e.g., prefixes, suffixes).

Morphemic Analysis. This form of word analysis focuses on morphemes, which are the smallest units of meaning found within words. For example, the word *really* consists of two morphemes: *real* and *-ly*. Root words that can stand alone are referred to as the *free morphemes* while affixes (suffixes and prefixes) are classified as *bound morphemes* because they must be attached to a free morpheme.

Instructional programs for students should help them discern the meaning units that are within words. Consequently, the focus of instruction should be on identifying common prefixes as well as common suffixes so that students will attend to their presence, realize they constitute a separate syllable with distinct meaning, identify the root word to which they are bound, and consequently be able to break down the word according to its structure (hence structural or morphemic analysis). Table 5–6 provides a summary of common prefixes and suffixes; these can be used to frame specific instructional units that will enhance the ability of students to take advantage of meaning units within words.

The other components of morphemic analysis relate to the identification of compound words as well as contractions. Typically, these represent more limited challenges for readers but nevertheless are important areas of focus within instruction as students understand these other ways of viewing meaning units in the process of word recognition.

Syllabication. Another key area of structural analysis is syllabication. The method described here was developed to teach students to recognize and count syllables, to apply two rules to words with two or more syllables, and to rely on vocabulary to correct any distortions in pronunciations. Without a multitude of rules to memorize, students can read longer words using the phonetic generalizations learned previously.

TABLE 5–6 Common affixes

Affix	*Meaning*	*Example*
un-	not	unhappy, unlock
re-	back, again	repay, review
in-	not, into	insane, inland
dis-	opposite	dislike, discontinue
en-	in, into, make	enforce, endanger
non-	not	nonsmoker, nonsense
over-	excessive	overcharge, overwork
mis-	wrong	mistake, misplace
-en	made of, consisting of	golden, wooden
-er	relating to, like	painter, baker
-ish	like	childish, yellowish
-ly	in a way	slowly, simply
-ize	to act in a certain way	alphabetize, minimize
-ist	one who	terrorist, machinist
-ism	a principle, belief, or movement	conservatism, feminism

Source: Models in Education (p. 10), by E.A. Polloway and A. L. Meade, 2009, unpublished manuscript, Lynchburg College, Lynchburg, VA.

The first rule, dividing syllables between two consonants, can be illustrated by the word *rabbit*. Instruction emphasizes that *rabbit* should have two syllables (two sounded vowels), should be divided between *b* and *b* (two consonants together), and then read as two small words and blended.

The second rule, dividing syllables between a vowel and a consonant, can be illustrated by the word *favor*. Division would fall between *a* and *v* (because of the vowel-consonant-vowel combination), and the word would be read and blended. These two rules can extend to words with more syllables (e.g., *discussion* and *tomato*, respectively) and with both combinations present (e.g., *envelope, remainder*). The steps (as adapted from E. A. Polloway et al., 2012) include:

1. Student identifies how many syllables are heard in known words. Student will divide a known word orally.
   a. Teacher orally explains concept and demonstrates on known words.

b. Student is given words to divide orally.
c. Sample word list: *tomato, sunshine, toe, cucumber.*

2. Student recognizes that a word has as many syllables as vowels heard.
   a. Teacher writes known words and student tells how many syllables are heard and how many vowels are seen and heard.
   b. Process continues until student learns that the number of vowels heard equals the number of syllables.
   c. Sample word list: *tomato, sunshine, toe, cucumber.*
3. Student determines how many syllables an unknown word will have.
   a. Review the two rules of the silent *e* and when two vowels come together, one sound results.
   b. Teacher writes unknown word; student determines which vowels will be silent and predicts number of syllables.
   c. Sample word list: *domino, barbecue, stagnate, mouse.*
4. Student syllabicates words that follow the *vc/cv* (vowel consonant/consonant vowel) pattern.
   a. Teacher writes and student divides two-syllable words.
   b. Student practices dividing and pronouncing two-syllable *vc/cv* words.
   c. Teacher demonstrates process of dividing longer known words:
      i. Determine number of syllables.
      ii. Establish first division by starting with first vowel and look for *vc/cv* pattern, then divide.
      iii. Establish second division by starting with second vowel and look for *vc/cv* pattern, then divide.
      iv. Continue procedure until all syllables are determined.
      v. Pronounce word.
   d. Student practices dividing and pronouncing unknown words that contain *vc/cv* pattern.
   e. Sample word list: *rabbit, bitter, pepper, mixture.*
5. Student syllabicates words that contain the *v/cv* (vowel/consonant vowel) pattern.
   a. Follow instructions for Step 4, substituting the *v/cv* pattern.
   b. Sample word list: *labor, favor, basic, demand.*
6. Student syllabicates words that contain both *vc/cv* and *v/cv* patterns.
   a. Teacher writes and student divides known words that contain both patterns.
   b. Student practices dividing and pronouncing unknown words with both patterns.
   c. Sample word list: *envelope, cucumber, remainder, resulting.*
7. Student syllabicates words that have a *vcccv* (vowel consonant consonant consonant vowel) or *vccccv* pattern.
   a. Teacher writes and student divides known words containing *vcccv* or *vccccv* patterns until student recognizes that the division is based on consonant blends and digraphs.
   b. Student practices dividing and pronouncing unknown words containing both patterns.
   c. Sample word list: *concrete, pitcher, contract, merchant.*
8. Student syllabicates words ending with *-cle* (i.e., consonant *-le*).
   a. Teacher writes and student divides known words ending with *-cle* until student generalizes that when preceded by *cl*, the final *e* is not silent but produces a syllable that contains *-cle* and the preceding consonant.
   b. Student practices dividing and pronouncing unknown words containing the *-cle* ending.
   c. Sample word list: *candle, rattle, dribble, staple.*
9. Student recognizes the *y* in the medial or final position as a vowel.
   a. Teacher tells student that *y* will be a vowel in the medial or final position.
   b. Teacher writes and student divides known words containing *y* in both positions.
   c. Student practices dividing and pronouncing unknown words that contain *y* in the medial or final position.
   d. Sample word list: *funny, my, cranky, style.*
10. Student divides and pronounces unknown words containing mixed patterns.
11. Student syllabicates and pronounces unknown words in context.

This sequence builds on the student's existing sound–symbol skills to analyze longer words beyond the student's current reading vocabulary. To the degree that such a task can be done automatically,

it can be incorporated within the process of reading a passage without significant interference with comprehension.

Contextual Analysis

Contextual analysis involves the identification of an unknown word based on its use in a sentence or passage. It functions as a system of syntactic and semantic cueing. Context clues potentially may help readers identify words and derive word meanings.

At the early elementary level, students' listening vocabulary and comprehension may supercede their decoding skills and thus their ability to use context may be relatively effective. They can use structural and meaning cues to follow the sentences to anticipate forthcoming words and make a guess about one that they might not be able to recognize on sight. Context clues may be a useful strategy for young children, particularly for its impact on comprehension. Its use with older students, however, is more problematic; it is discussed below.

Contextual Analysis for Older Students. Difficulty in the use of context that becomes evident as students move to middle school. As J. E. Greene (1998) noted:

- New content-area vocabulary words do not preexist in their listening vocabularies. They can guess wagon. But they can't guess circumnavigation or chlorophyll based on context. . . . These words are not in their listening vocabularies.
- When all of the words readers never learned to decode in grades one to four are added to all the textbook vocabulary words that don't preexist in readers' listening vocabularies, the percentage of unknown words teeters over the brink; the text now contains so many unknown words that there's no way to get the sense of the sentence.
- Text becomes more syntactically embedded, and comprehension disintegrates. Simple English sentences can be stuffed full of prepositional phrases, dependent clauses, and compoundings. Eventually, there's so much language woven into a sentence that readers lose meaning. When syntactically embedded sentences crop up in science and social studies texts, many can't comprehend. (p. 76)

Therefore, the challenge for teachers is to find a way to encourage the use of context primarily when it assists in enhancing comprehension of text (e.g., through vocabulary development) and figuring out the occasional word but not to overemphasize it to the point where it becomes a primary strategy used by students.

Stanovich and Stanovich (1995) spoke directly to this issue in noting that "research has consistently indicated that the word recognition of better readers is *not* characterized by more reliance on contextual information. . . . There *is* considerable evidence that better readers are better able to use contextual information to facilitate their *comprehension* processes. . . . However, research . . . has shown that hypotheses about context use in comprehension were inappropriately generalized to the *word recognition* level. . . . In summary, contextual information is simply no substitute for the ability to decode the words on the page" (pp. 90, 92).

The Center for the Future of Teaching and Learning (1996) posited that an overemphasis on prediction from context can have a negative effect on reading and delay successful acquisition. It indicated that it is incorrect to assume that predicting forthcoming words in sentences is a relatively easy activity and one that results in a high level of accuracy. Rather, it appears that the use of semantic and syntactic cues is a minor aspect of the way that mature readers attack the reading task. Consequently, poor readers are more likely to rely on context to a significant degree when their ability to decode is too weak to assist them in the task.

Applying Multiple Word Strategies

CRUSCH is a word-recognition strategy for identifying unknown, polysyllabic words encountered in text. CRUSCH refers to the following:

- **Consonant**—Focus on the initial consonant sound.
- **Rapid**—Rapidly focus on initial consonant, vowel sounds, and prefixes and suffixes while reviewing whole words.
- **Unimportant**—Skip over unimportant words that do not require precise pronunciation (e.g., names).
- **Syllabicate**—Apply syllabication strategies if word pronunciation is essential.
- **Context**—Use contextual analysis for periodic (i.e., infrequent) determination of meaning for new vocabulary words.
- **Help**—Seek help (e.g., from teacher, peer, dictionary).

CRUSCH can assist students in thinking about how they will respond when confronted with unknown words. Although research indicates that mature readers are most successful when they respond to the inherent sound–symbol correspondences in their reading, the steps as outlined will give those who experience difficulty ways to generate meaning for new vocabulary words, focus on the most efficient sound–symbol correspondences that provide key graphophonemic cues, ignore the need for pronunciation of words that do not affect meaning, and utilize more complex syllabication strategies when they are necessary to determine the pronunciation of a particular word and/or an understanding of its meaning.

Phonemic Awareness and Word-Recognition Curricular Programs

The **Lindamood Program for Reading, Spelling, and Speech** (Lindamood & Lindamood, 1998) focuses on the development of phonemic awareness by enabling learners to identify and sequence individual sounds in their order within words to promote competence in reading, spelling, and speech. The key element is learning consonant and vowel sounds through feedback from articulating the sounds. It includes a training manual, a research booklet, videotapes, photos of correct formation for phoneme pronunciation, and a variety of instructional materials. A comprehensive review of related research by Truch (1998) focused on the effectiveness of the Lindamood program within the context of an analysis of the role of phonological processing in reading and spelling.

Phonological Awareness Training for Reading was developed by Torgesen and Bryant (1994) and is designed to increase phonological awareness in young children with particular emphasis on kindergarten children at risk for failure and first- and second-grade children who have already begun to experience difficulty in learning to read. It is an approximately 12-week-long program that teaches sensitivity to phonological structures. The program includes a training manual, picture word cards, rhyming picture cards, and a variety of other instructional materials. It is based on validation studies conducted by the senior author under the auspices of the National Institute of Mental Health. Wanzek, Dickson, Bursuck, and White (2000) reported that the program includes a number of key features: It is consistent with preferred curriculum design principles, requires limited adaptations for at-risk learners, is user friendly, and provides teachers with an explicit script to follow for instructions.

The **Reading Mastery Program** (Engelmann, 2003) relies on auditory and sound-blending skills. The program presents a phonetic alphabet of 40 symbols taught in a highly sequential manner before introducing letter names. In each lesson, the teacher reads the material to a small group of students and asks individuals to respond orally when given certain designated symbols. Student behavior and responses are monitored during exercises. The program contains reading materials using specialized symbols and seatwork activities focused on both word analysis and comprehension. Other materials in this series are teacher's guides, lesson plans, reading books, workbooks, spelling books, and take-home readers. The program is highly structured, sequence each step of learning, and contain criterion objectives for each learning task as a developmental program in beginning reading instruction for any student, but these programs are more commonly used for remedial purposes.

The **Corrective Reading Program (CRP)** (Engelmann, 1999) is a direct instruction program for upper elementary, middle, and high school students who have not mastered decoding and/or comprehension skills. The program is divided into two strands, decoding and comprehension, each with three levels of skill development. The comprehension strand presents a variety of formats involving real-life survival situations that are excellent for the adolescent learner. CRP promotes academic engaged time by providing group lesson plans using teaching strategies that require students to answer aloud and in unison. Each lesson is fast-paced, keeping students thinking and providing less opportunity for students to become distracted. Because CRP uses the direct instruction approach, it provides a script for teachers to follow. Special motivation for adolescent students is provided in a group reinforcement component, with each student receiving additional points based on the group's performance. Some research (e.g., E. A. Polloway, Epstein, Polloway, Patton, & Ball, 1986) has indicated that students with learning disabilities as well as those who were mildly intellectually disabled increased decoding and comprehension skills after participating in the CRP for an academic year. Further, when implemented with 11th- and 12th-grade peer instructors, CRP was effective in

increasing achievement test scores and oral fluency (R. E. Harris, Marchand-Martella, & Martella, 2000).

The **Spalding Method** (Spalding Education International, 2000; Spalding Method Catalog, 2002) for literacy instruction is a total language approach that involves explicit, multisensory instruction in spelling, writing, and listening/reading comprehension. Specifically, the essential components for this method include phonics instruction, writing, comprehension instruction, literacy appreciation, and a philosophy centered on the development of critical thinking skills for children. The program is commonly used with both general and special education students in Grades K through 12. The Spalding program utilizes a variety of techniques in the course of literacy instruction. For instance, during phonemic awareness training students are taught explicitly to segment spoken words and syllables as well as blend sounds into spoken words. Students also learn to speak and write 70 common sound–symbol relationships. Both of these techniques are reinforced through daily phonogram and spelling reviews. In addition, the program incorporates extensive fluency training, vocabulary instruction, and comprehension strategies through which teachers may provide modeling and immediate feedback. Another essential component of the Spalding program is providing students with quality literature and then encouraging independent reading to complement the other elements of the program.

The **Wilson Reading System** is a well-regarded reading program that provides an important focus on decoding skills. The program is based on the Orton-Gillingham approach to instruction in reading and consequently has a strong emphasis on phonetic analysis skills. The program uses a "sound tapping" system to highlight letter-sound correspondences. It includes an extensive set of word lists, sentences, and stories that can be decoded. It also includes two levels of vocabulary in order to make the program applicable to students from primary grades through secondary school. Malmgren and Trezek (2009) reported on the research of the Florida Center for Reading Research on which reading regarding the degree to which various reading curricula address the key components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The Wilson Reading System received four ratings of three (highest rating) (with a two rating on vocabulary development). B. A. Wilson and O'Connor (1995) also provided data on the effectiveness of students with learning disabilities across Grades 3 to 12 in terms of skills, comprehension, total reading scores, and spelling.

The **Edmark Reading Program** consists of two levels designed to teach basic sight vocabulary. The program was originally designed to instruct students with intellectual disabilities through a systematic approach that would encourage motivation and cooperative behaviors, but it has been used successfully with other students, primarily to help them acquire a basic sight vocabulary. For each lesson, students are asked to follow a systematic method of learning, with emphasis on errorless discrimination. Following each lesson, the student participates in a set of various activities including stories, direction cards, and picture/phrase cards. Both levels introduce words in groups of 10. There are posttests given at the end of each group for review. The stories and activities that follow each lesson have story ideas that relate to real-life situations to capture student interest. Level 1 includes lessons for 150 basic sight vocabulary words. This level also introduces simple endings *(-ed, -ing, -s)*; its goal is to have the nonreader at a first-grade level. Level 2 introduces 200 new words. This level includes more complex words, including compound words; its goal is to have the student reading at a third-grade level.

Peer-Mediated Strategies

With reading instruction being critical to student success, students must be provided the maximum amount of instruction time within the school day. However, meeting students' needs when their ability levels are significantly at variance is difficult. One approach is to use peer-mediated strategies, as discussed in Chapter 2.

In the area of reading, the best-researched intervention using peers at the elementary level is the Peer-Assisted Learning Strategies (PALS) approach (see D. Fuchs & Fuchs, 2005). The PALS program matches a student with a peer and includes a higher and lower performer within the class. Although the roles of tutors are reciprocal, the program has the student who is higher performing reading first for each of the activities as a way to model the goal performance.

D. Fuchs and Fuchs (2005) summarized their findings across multiple studies as follows:

- Some instructional content reserved for older and more sophisticated learners can and should be directed to younger children. This content includes decoding and word recognition in kindergarten and fluency building in first grade.

- PALS is a means of transforming knowledge about reading instruction, developed and highly controlled in artificial context, into routines and programs that real teachers in the real schools can implement.
- In spite of our treatments' general effectiveness and robustness, they did not help all individual children. There was always 10% to 20% who did not respond to either of our most successful treatments.
- Teaching of some higher order reading skills, including those that may appear developmentally appropriate, may be unproductive: First graders who received instruction in word-reading skills outperformed those participating in both word-reading and comprehension activities because, we believe, the activities designed to strengthen comprehension inadvertently interrupted reading practice. (p. 42)

FLUENCY

A key concern is to develop fluency in reading. It serves as an appropriate bridge between word recognition and comprehension because as students are able to more fluently read sentences and passages, they are subsequently better able to follow the text meaning. *Fluency* is defined as "the ability to read text accurately, quickly, and with expression. All three of its elements—accuracy, speed, and expression—are essential if students are to understand what they read" (Bursuck & Damer, 2007, p. 169). More specifically, these three components are *speed* (i.e., rate with a goal of 100 words per minute [wpm] by Grade 3 and 300 wpm for adults], *accurate word recognition* (i.e., automatic recognition of most words read), and *expressive reading*, in terms of phrasing, intonation, and rhythm (Tompkins, 2006). The development of fluency is a complement to comprehension; the process of reading through passages continuously and smoothly can enhance comprehension.

Kubina and Hughes (2007) noted that "many students, even when they become accurate decoders, do not automatically become fluent readers and must be taught to do so by providing meaningful practice through repeated exposure to text" (p. 1). Effective strategies for promoting fluency can include the use of repeated readings, unison reading (in which the teacher and student read a text together), paired reading that includes a more mature reading with a less skilled reader, and of course regular opportunities to engage in the reading process both orally and silently.

Repeated Readings

With **repeated readings** or *multiple oral readings (MOR)*, students receive a selection approximately 200 words in length with instructions to practice reading it orally while listening to a tape of the same material. When students decide that they are ready, their time and errors are recorded. After further oral practice, another time/error check is made. This procedure continues until the student reads 85 words per minute, at which time the process begins again with new material.

Moyer (1982) outlined the following steps for MOR:

1. Choose materials at a level that results in limited difficulty in word recognition.
2. Read initially at a comfortable pace.
3. Reread three to four times, increasing the speed with each reading.
4. Use passages of approximately three to four paragraphs on the average; vary according to the student's needs.

A derivative of multiple oral readings is timed-repeated readings (Sample, 2005). With this approach, teachers can (1) select a passage of approximately 100 words, (2) have students reread the passage until they reach a predetermined rate of fluency with regard to words per minute and also word-recognition accuracy, (3) engage in self-assessment by graphing the results to show continued improvement, and (4) use self- or peer-mediated strategies to enhance further performance.

Mastropieri and Scruggs (1997) concluded that reading the same passage three or four times does have a positive effect on fluency and also on passage comprehension. However, they cautioned that additional readings would yield diminishing returns and that repeated readings of a given text may have a positive effect on other texts only to the extent that there are significant overlaps in words.

The NRP (2000) concluded that repeated reading can positively affect students' reading:

> In the early stage of reading instruction, the beginning reader may be accurate in word recognition but the process is likely to be slow and effortful. With increased practice and repeated exposure to the words in a text that the student reads, word recognition continues to be accurate [and improvements are] evident in the speed and ease of word recognition as well. Continued reading practice helps make the word-recognition process increasingly automatic. (pp. 3–8)

Based on its review of research since the publication of the NRP's report, Pressley and Fingeret (2005) concluded that multiple readings is an effective approach to enhance fluency. Further, they indicated that teacher guidance was the critical component and resulted in more significant gains in both fluency and in reading comprehension than occurred when the student was assigned to reread passages on his or her own.

Although repeated readings have been recognized for decades as an appropriate approach to promote reading achievement, and in particular, fluency, there is need for caution in its usage. In a recent review of evidence-based practices with students with learning disabilities, Chard, Ketterlin-Geller, Baker, Doabler, and Apichatabutra (2009) reported that repeated reading did not yet meet the criteria to be a qualified "as an evidence-based or promising practice for students with or at risk for learning disabilities" (p. 276).

Unison Reading

Several approaches represent forms of *unison reading,* in which the teacher and the students read aloud in unison or echo fashion. The instructor sits behind the student and reads slightly faster and louder, pointing to the words as they are read. This method can be used for 5 to 10 minutes daily. Progress usually occurs quickly, so this strategy should be terminated if no improvement is noted in a reasonable period of time. Because research on this technique has been mixed, teachers should evaluate its effectiveness when using it.

Teachers may also want to use *imitative reading*, which is a similar procedure for improving the fluency of students with reading difficulties. The teacher reads very simple, short segments aloud as the student follows silently. The student then tries to read the same phrase or sentence aloud. The procedure is repeated until the student reads the material with fluency.

Paired Reading

With this approach, two students who have similar instructional reading levels read aloud in unison (Henk, Helfeldt, & Platt, 1986). Material familiar to both students is used in the initial stages of paired reading. After the two develop a sense of trust and cooperation, less familiar text can be introduced. As they work together, one student can assist when the other hesitates or makes an error. Tape recording of these oral reading sessions can help both students evaluate their reading fluency.

Oral Reading

Oral reading is an important component of a total program. It is particularly necessary in the early stages of instruction because it gives the teacher insight into the beginning reader's knowledge of sight words and decoding skills. Oral reading has three core purposes: diagnosis, conveying of directions or instruction, and personal pleasure. For learners with special needs, oral reading has four additional purposes: articulation and vocabulary practice, memory reinforcement, rereading for better comprehension, and group participation.

Oral reading can assist the development of correct word pronunciation by providing the reader with disabilities who seldom verbalizes with a structured opportunity to speak. When reading aloud, the student takes in information both auditorily and visually, adding an additional pathway to learning that is often necessary for memory. Rereading a passage orally after it has been read silently assists comprehension, particularly when the teacher designates a purpose for each reading.

Continuing oral reading for students with special needs longer than for children without disabilities is often beneficial. However, the students also clearly need practice and guidance in the transition from oral to silent reading (directed and encouraged by the teacher), because silent reading is the critical skill to develop. This fact will be discussed further in Chapter 6 with regard to how silent reading promotes comprehension.

SUMMARY

This chapter focused on assessment and instruction in reading, with special emphasis on word recognition. Specific suggestions were made for formal and teacher-oriented assessments that assist in instructional planning. Instructional strategies and programs for promoting word analysis and recognition were presented, and special emphasis was placed on phonemic awareness and phonetic analysis for students with reading disabilities. Further attention was given to importance of developing a

strong sight vocabulary, using structural analysis, using caution with contextual analysis, and combining these word-recognition skills to enhance effective reading. The chapter concluded with a discussion of the importance of fluency and ways to promote its acquisition.

ACTIVITIES

Elementary Level

The activities listed serve as a basis for reinforcing skills in word recognition. The activities are grouped according to activities for word analysis and sight vocabulary.

Word Analysis

1. Initial consonant sounds can be practiced by gluing pictures of simple objects on small cards. Have students place the cards on a grid on which each square has a consonant letter corresponding to the beginning sound of an object on the cards. Consonant blends and final consonant sounds can be drilled in the same manner.
2. Make word wheels of word families, changing only the initial consonants. These devices not only give practice in consonant sounds but also are excellent for sound blending. Word wheels are two circles made of oaktag, one smaller than the other and fastened together in the center with a brass fastener so that they can rotate. The different word bases (e.g., *-ag, -ad, at*) are written on the exposed edge of the larger circle, and the different initial consonants are written on the edge of the smaller circle. As students rotate the top circle, different words are formed, which students can read aloud to a friend.
3. Make two-part puzzles with an initial sound on one part and a word family on the other. Have students put the puzzles together and pronounce the words. Animal shapes are popular and can be cut between the head and body or body and tail. Use the same idea for contractions, compound words, and root words with endings. Character combinations are popular also: Snoopy and his doghouse, Woodstock and his nest, and Batman and his cape. Three-part puzzles can be made to accommodate adding prefixes and suffixes to root words (e.g., *unfolded*).
4. Have students make notebooks for sounds. As sounds are presented, students can cut out pictures of objects that begin with each specific sound and glue them into the book. Later, students can write words that they have learned to recognize or spell that begin with each specific sound.
5. List on the board the letters for the vowels, blends, or consonants that have been studied. Have students stand in a large circle with one student in the center. The student in the center tosses a ball to a student in the circle and calls out one of the letters from the board. The student who catches the ball has to say a word that contains the sound that was called. That student then goes to the center and throws the ball.
6. Take students on a walk through a variety of environments (e.g., forests, urban areas). Have them record all the sounds they hear. Make comparisons between the sounds, then record the sounds (H. E. Buck, 2008).

Sight Vocabulary

1. List words on the board. Have two students stand with their backs to the lists. As you call out a word, the students turn; the first to find the word receives a point.
2. Make a game board of oaktag with a path of squares. Mark "start" and "finish" squares and various outer squares with directions like "move ahead three squares," "move back three squares," or "shortcut" with a path to another square. Write words that are to become sight vocabulary words in the open squares with a grease pencil. Students then throw dice to determine how far they are to move. They must pronounce the word they land on to remain in the game. The game can be varied by changing the words, and several boards can be made to fit the season of the year.
3. Put pictures of words like *ball* or *car* on one side of a card, and write the word on the other side. Make a game board similar to a bingo card, with each sight word written on it for each child. Place cards with the word-side-up in a pile. Students take turns drawing cards. They must be able to say the word correctly before placing it on their boards. The picture on the back makes the game self-correcting. If the student cannot recognize the word, the card is placed at the bottom of the pile. The

first student to get four words in a row in any direction wins the game.

4. A form of Concentration can be played by making two sets of identical cards with sight words. Begin with five pairs of cards. Place the cards spread out in two areas, face down on a flat surface. The child turns up a card in one set and then tries to find the card that matches in the other set. When a match is made, the student pronounces the word and gets to keep the cards.
5. Use a chart-sized pegboard and attach hooks on which index cards can be hung. Write vocabulary words on index cards, punch a hole in each card, and hang the cards from the hooks on the pegboard. Give students a rubber jar-ring to toss at a hook on the board. When a ring lands on a hook, that card is removed from the hook, and the student pronounces the word to earn a point. The one with the most points wins. The game can be varied by using bean bags to throw at a card on a board or at cards hung from a miniature clothesline with pins.
6. For students at an elementary reading level, reinforcing reading skills (e.g., sight-word vocabulary and speed) using the popular music video disk machine (known as karaoke) can be effective (Brick & Wagner, 1993). Students sing words to a song displayed on a video monitor while a musical accompaniment is played in the background (H. E. Buck, 2008).
7. Play a game in which short sound segments are played on a tape recorder, and have the students guess what each sound is. For instance, play the sound of water dripping and ask the students to identify the sound. Follow up this activity with playing commercially made environmental recordings (such as recordings of the rain forest, whales, etc.) (H. E. Buck, 2008).

Middle and Secondary Level

1. Recognition of prefixes and suffixes can be practiced by listing words on the board or on a worksheet and having students underline the prefix, suffix, or both. You may also call out words while students write the prefix or suffix they hear in the word, or they may find and write different words containing the same prefix or suffix.
2. Write multisyllabic words on small cards, one word per card. Place the cards in an envelope and clip it to a manila folder. Inside the folder draw several columns, numbered 2, 3, 4, and so on as room permits. The student counts the number of syllables in the word on the card and writes in the proper column. The cards have the correct number of syllables written on the back, or an answer sheet can be provided for immediate feedback.
3. For compound words, develop exercises such as:
   - Matching drills using two lists of words with pairs that can be combined
   - Adapting the cloze procedures in which one half of each compound word is left blank (e.g., *When the winter blows, we huddle around the _____ place*)
   - Giving students ridiculous pictures to label (e.g., a stick of flying butter for butterfly)
   - Providing a list of invented words or colloquialisms to be defined (e.g., *slamdunk, skyhook*)
4. To enhance an ability to use prefixes and suffixes, consider activities such as:
   - Color coding of the designated affix being taught
   - Providing word wheels with root words in the center surrounded by prefixes, or a suffix in the center surrounded by root words
   - Doing a speed listing of all the words that begin with a prefix (e.g., *un-*: *undress, untie, uncover, undo*)
5. To assist with vocabulary development, establish a word retirement area on a bulletin board. During the week have students list words that they and their peers overuse. Once a week have the class review the words and choose one or two to focus on. Have students look up the word(s) and agree on the intended meaning(s). Then have them use a thesaurus to find synonyms for the overused word(s). Students should keep a record of their use of the chosen synonym(s) for the next week. At the end of the time period the student using the new vocabulary word(s) the most becomes the manager of the word retirement "home" and is in charge of recording the next week's words (Pearson, 1987).