Chapter 7

Assessing and Teaching Reading: Phonological Awareness, Phonics, and Word Recognition

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Learning Outcomes

7.1 Describe the two overarching constructs that guide reading instruction.

7.2 Define and provide examples of instruction on phonological awareness, letter–sound correspondence, and phonics.

7.3 List the six main decoding strategies, and describe how each contributes to successful word identification.

7.4 Compare explicit and implicit code instruction and when you might use each of these approaches.

Students have a variety of strengths and needs in the area of reading; thus targeted reading instruction is often beneficial. Let's look at two students and see what targeted instruction might be for these students.

Kyle is a second grader who is receiving special education services for his learning disability in the area of reading. He reads at a beginning level and can read only about 30 words. When he comes to a word he does not know, he sometimes attempts to sound out the word. However, he has difficulty remembering common letter-sound correspondences. This means that when he sees letters, he does not automatically know the sound that letter makes. He also struggles with blending the sounds so that he can generate a word close enough to the correct word that he can figure it out. For Kyle, reading instruction will focus primarily on building phonological awareness, letter–sound correspondences, decoding strategies, and fluent word identification. The methods for teaching these components of reading that are presented in this chapter could assist in developing the automatic word recognition that would allow him to focus more of his attention on understanding what he reads. However, though the emphasis is placed on these more basic skills, his instructional program should also include repeated reading of independent and instructional-level decodable books (i.e., books that primarily use words that reflect the phonic and word patterns he has already learned) to build fluency. His reading instruction also includes the listening, supported reading, and discussion of a wide variety of literature and content area materials to support his development of vocabulary and comprehension. Finally, it will be important for Kyle to have writing activities that relate directly to his reading skills. For example, as he is learning the sounds to read *at*, he can also learn to write words that end in -at such as *hat, mat, fat*, and *cat*. Similarly, as he develops his understanding of different types of texts and genres (e.g., narratives such as folktales, adventure stories, and mysteries; expositions such as descriptions, comparisons/contrasts, persuasions), he can introduce his knowledge about these genres into his writing, thus also advancing his writing skills.

Manuel is an eighth grader who is reading at approximately the fourth-grade level. He entered school speaking both Spanish and English. He struggled with learning to read in Spanish because of his limited vocabulary knowledge and comprehension skills (e.g., getting the main idea, comprehension monitoring). He began reading in English during second grade and continued to struggle with vocabulary knowledge and comprehension, and he also had difficulty with decoding in English, because its letter–sound relationships are not as regular as those in Spanish. As an eighth grader, he is taking English/language arts from Ms. Gonzalez, the special education teacher. Ms. Gonzalez described Manuel's instructional reading program as follows:

> Manuel is working on building his vocabulary, comprehension, and advanced decoding skills. In particular, Manuel struggles when reading some of the more complex texts required in eighth grade addressing literature, history, and science. Currently, he is learning to decode multisyllabic words (e.g., *construction, reconsider*) in which he identifies and separates the prefixes, suffixes, and endings. Then if he doesn't recognize the root word (also referred to as "base word"), he uses the information he knows about open and closed syllables to decode the root word. One of the benefits of this strategy is that the students learn the meanings of the prefixes and suffixes, so it really helps them in learning what the word means. They also use the context by rereading the sentence or the surrounding sentences as a means to enhance their understanding of word meaning. For Manuel, this helps him build his decoding skills and vocabulary knowledge at the same time. We also take the time to learn related words. For example, if the word is *construction*, we make a "struct" web with words such as *destruction, construct, reconstruction*, and *deconstruct*. For teaching comprehension, Manuel and his classmates are learning to use collaborative strategic reading. It teaches the comprehension strategies previewing, questioning, summarizing, clarifying, and comprehension monitoring. The students work in collaborative learning groups, and we have been focusing on the eighth-grade social studies content, since Manuel and his fellow students are in general education social studies classes. Next semester, the social studies teacher and I are planning to coteach, and we'll use collaborative strategic reading 2 to 3 days a week to build comprehension skills while learning social studies content knowledge.

Like Kyle's, Manuel's reading program contains various components of reading depending on his needs: word identification (this chapter), vocabulary development, and comprehension.

In this chapter, we present specific methods, techniques, and approaches for teaching phonological awareness, letter-sound relationships, and the alphabetic principle, as well as strategies for teaching word identification and word study.

What is perhaps the most consistent challenge of students with learning and behavior problems? The vast majority of students with these problems (over 80%) display consistent and persistent struggles in acquiring proficiency in reading. Thus, special education teachers teach many students who have difficulties in learning to read. Whether working as a coteacher with a kindergarten or first-grade teacher,

working with a group of students and providing intensive, small-group instruction in an elementary school; or teaching reading through the content area in a middle or high school, special education teachers spend a great deal of their time teaching reading. Why? First, reading is often considered to be the most important area of education. Reading for understanding and learning is necessary for content-area classes such as social studies, science, and vocational education and for successful employment. Second, students with learning and behavior disabilities have reading targeted as an area of need and have individualized education program (IEP) goals related to reading, more than any other academic area. Third, longitudinal research indicates that if students with learning and behavior problems do not learn to read by the end of third grade, their chances of having reading difficulties throughout their schooling and into adulthood are about 50% (Fletcher, Lyon, Fuchs, & Barnes, 2018). Therefore, developing successful readers early is essential.

> Think about how the oral language strategies and instructional techniques that were discussed in Chapter 6 are related to reading and writing and could be incorporated into your teaching.

Although we have divided our discussion of reading and writing instruction into four chapters (Chapters 7 through 10), we stress the importance of the relationships between reading and writing. Critical to successful reading instruction for students with learning and behavior problems are opportunities for them to spell the words they are learning to read, to write about what they are reading, and to compose stories and essays using structures and conventions similar to the ones they are reading. As you read these four chapters, think about how reading and writing are reciprocal processes and how they can be taught in such a way that each complements and supports the other.

Reading Instruction

How can teachers address the two overarching concepts that guide reading instruction? The goal of reading instruction is to give students the skills, strategies, and knowledge to read fluently and understand various texts for purposes of enjoyment and learning, whether reading a book, magazine, sign, pamphlet, e-mail message, or Internet site. To accomplish this goal, it is important to think about these two overarching concepts.

1. *Reading is a skilled and strategic process in which learning to decode and read words accurately and rapidly is essential.* The average student entering school has a broad command of oral language. However, reading requires students to be able to distinguish the individual sounds that make up words and understand that letters represent sounds in language. Reading entails using the attentional, perceptual, memory, and retrieval processes necessary to automatically identify or decode words.

The process of recognizing words is called *decoding* or *word recognition*. As students become proficient readers, they recognize most words with little effort. But as students are learning to read or when readers encounter an unknown word, they use what they know about decoding or word patterns to segment and then blend the word by sounds and patterns (e.g., individual sounds; spelling patterns such as -at, -ight; prefixes; suffixes; syllables) and use syntax and context (e.g., semantics) to assist in decoding. In developing decoding skills, students develop metalinguistics, that is, knowledge and skills focused on how language operates.

Knowing and demonstrating how to blend and segment sounds or phonemes into words is a key phonological or metalinguistic skill for decoding and one with which students with learning/reading disabilities have particular difficulty (e.g., Metsala, 2011; Kilpatrick, 2015). When word reading is fluent, efforts can focus on comprehension. Thus, a goal of reading instruction is to decode effortlessly so that attention is on comprehension.

As emergent readers encounter print in their environment, they ask questions and learn about how language is represented in its written form. They engage in the following:

- Pretending to read favorite print (e.g., books, poems, songs, chants).
- Reading what they have drawn or written, even when no one else can.
- Pointing to just one word, the first word in a sentence, one letter, the first letter in the word, the longest word, etc.
- Recognizing some concrete words (e.g., their names, friends' names, words in the environment such as McDonald's).
- Recognizing and generating rhyming words.
- Naming many letters and telling you words that begin with the common initial sound.

As beginning readers proceed with learning to read, they learn to

- Identify letters by name.
- Say the common sounds of letters.
- Blend the sounds represented by letters into decodable words.
- Read irregular words.
- Read words, then sentences, and then longer text.

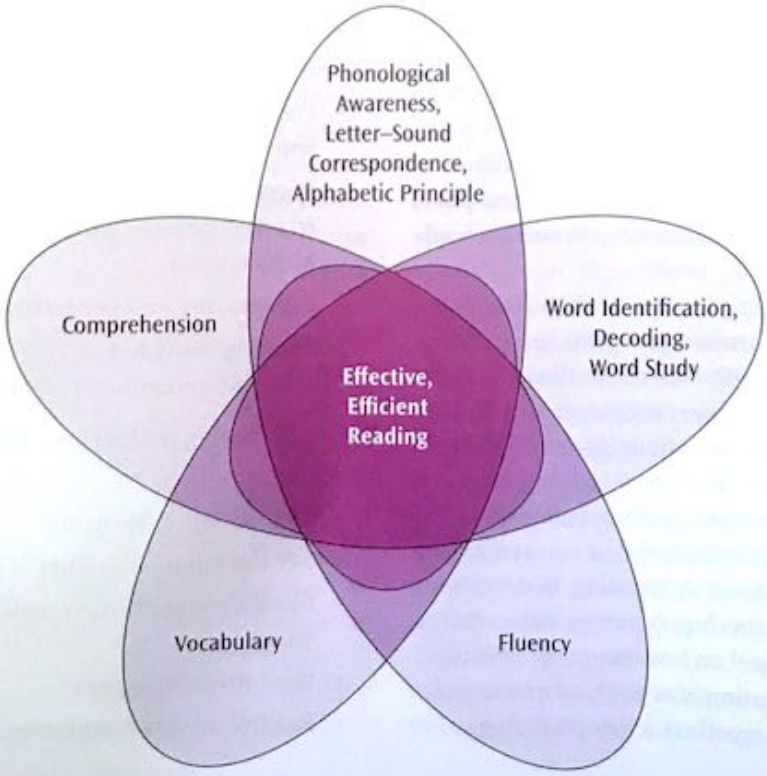
2. *Reading entails understanding the text and depends on active engagement and interpretation by the reader.* Understanding is influenced by both the text and the readers' prior knowledge (Perfetti & Adlof, 2012). When readers read, the author does not simply convey ideas but stimulates readers to actively engage in such strategies as *predicting* to make hypotheses about the meaning, *summarizing* to put in their own words the major points in the text, *questioning* to promote and check for understanding, and *clarifying* when concepts are not clear. Furthermore, effective readers *make connections* between their prior knowledge (background knowledge) and what they are reading while *monitoring* their comprehension to determine whether they understand what they are reading. When they are not sure, they may decide to use fix-up strategies such as rereading or reading on for further clarification, or they may decide not to worry about the confusion depending on the purpose for reading. Knowing about these strategies and in which situations to apply different strategies is called *metacognition*. For example, teaching students to monitor their reading comprehension while they read is so important. Studies with good and poor readers suggest that the poor readers do not automatically monitor their comprehension or engage in strategic behavior to restore meaning when a comprehension breakdown occurs (Cataldo & Cornoldi, 2011). For example, when students are provided texts that have inconsistent or inaccurate information, students with reading difficulties are less likely to recognize these inaccuracies and continue reading as though the text makes sense.

Because it is important to emphasize certain components (e.g., phonological awareness, phonics, fluency, vocabulary comprehension) of reading based on the student's level of development and needs, particularly for students with learning/reading disabilities, instruction should integrate these components (Figure 7.1). For example, while Kyle's reading program emphasized developing phonological awareness, letter–sound correspondences, and word-recognition skills, he also engaged in activities to promote fluency and listening/reading comprehension. In contrast, Manuel's reading program focused on advanced decoding skills, fluency, and comprehension. In this chapter, we turn our attention to the first two components of reading and reading instruction: phonological awareness and phonics.

Phonological Awareness, Letter–Sound Correspondence, and Phonics

What are the definitions and examples of instruction of phonological awareness, letter–sound correspondence, and phonics? What is phonological awareness? *Phonological awareness* is knowing and demonstrating that spoken language can be broken down into smaller units

Figure 7.1 Components of Beginning Reading Instruction



(words, syllables, phonemes), which can be manipulated within the alphabetic system or orthography (Vaughn, Bos, & Schumm, 2018). Phonological awareness encompasses the discrimination, counting, rhyming, alliteration, blending, segmentation, and manipulating of syllables, onset-rimes, and phonemes. Examples of activities that support these skills are presented in Apply the Concept 7.1.

Phonemic awareness is the most complex part of a phonological awareness continuum that includes rhyming and segmenting words and sentences. Phonemic awareness is the ability to recognize the smallest sound units of spoken language and how these units of sound, or *phonemes*, can be separated (pulled apart or segmented), blended (put back together), and manipulated (added, deleted, and substituted). The phoneme is the smallest sound in spoken language that makes a difference in words. For instructional purposes related to reading, a phoneme is a single sound that maps to print—sometimes to one letter and sometimes to more than one letter.

Phonological awareness engages students in oral language activities. However, before students can apply these skills to reading, they need to understand phonics. *Phonics* is the way in which the sounds of our language (not the letters) map to print. It is knowing how letter names and sounds relate to each other, referred to as *letter–sound correspondence*. Let's see how a teacher applies these concepts.

Ms. Hernandez, the special education teacher, works for 30 minutes three times a week in Ms. Harry's kindergarten class. She works with a small group of students who have the most difficulty learning to make letter–sound correspondences and who have difficulty separating words into their individual phonemes and blending and segmenting phonemes. With these kindergartners, Ms. Hernandez reinforces the key words that Ms. Harry is teaching with each letter–sound (e.g., *b*, *ball*, /b/), and has students participate in listening activities in which they have to count the number of syllables in words and sounds in simple words (e.g., *me* and *sit*) and create word families (e.g., *it*, *sit*, *mitt*, *bit*, *fit*, *hit*). At first, she has the students listen when working on these activities. Then she uses letters to demonstrate how the syllables and sounds are related to print.

Ms. Hernandez also works with a small group of six students in Ms. Yu's first-grade class who have difficulty learning to read. Ms. Hernandez engages these students in such activities as listening and clapping the number of sounds in words to help them segment the sounds, or saying each sound in a word slowly and then saying them fast to practice blending. When writing the sound, she has them say the word, then say the sounds, then say the first sound and write it, then say the first two sounds and write the second sound, and so on until they have written the word. She consistently pairs speech and print.

Ms. Hernandez is directly teaching phonological awareness, letter–sound relationships, and phonics, all of which are associated with successful reading and spelling. Evidence from research provides consistent support for the important role that phonological and phonemic awareness plays in learning to read (National Reading Panel, 2000; Nithart et al., 2011). The skills associated with phonological processing, particularly blending and segmenting individual phonemes, have been one of the most consistent predictors of difficulties in learning to read. Children who lack this metalinguistic insight are likely to be among the poorest readers and, because of their poor reading, to be identified as having a learning or reading disability (e.g., Blachman, 2000; Tunmer, Nesdale, & Wright, 1987).

7.1 Apply the Concept

Phonological Skills and Example Activities

- ***Discrimination:*** Students listen to determine whether two words begin or end with the same sound.
- ***Counting:*** Students clap the number of words in a sentence, syllables in a word (e.g., *cowboy*, *carrot*), and sounds in a word (e.g., *me*, *jump*).
- ***Rhyming:*** Students create word families with rhyming words (e.g., *all*, *call*, *fall*, *ball*).
- ***Alliteration:*** Students create tongue twisters (e.g., Sally's silly shoe sank slowly in the slime).
- ***Blending:*** Students say the sounds in a word and then say them fast while the teacher pushes blocks or letters together to demonstrate blending.
- ***Segmenting:*** Students say the word and then clap and say each syllable or sound (e.g., *running* is /run/ /ing/ or /r/ /u/ /n/ /i/ /ng/).
- ***Manipulating:*** Deleting, adding, substituting, and transposing.

  Deleting: Students listen to words and say them without the first sound (e.g., *bat* becomes *at*).

  Adding: Students listen to words and add syllables (e.g., *run* becomes *running*, *come* becomes *coming*).

  Substituting: Students listen and change sounds (e.g., change /r/ in *run* to /b/ and make *bun*).

Hence, Ms. Hernandez is working with students in kindergarten and first grade to help prevent or lessen later reading disabilities.

If you would like to learn more about phonemic awareness, check out **www.youtube: Phonemic Awareness**. Also, if you would like to share with parents a video on phonemic awareness, suggest **www.youtube: How to Read: What Is Phonemic Awareness?**

Development of Phonological Awareness and Phonics

In general, children's awareness of the phonological structure of language develops from larger units of sounds (e.g., words in a sentence, syllables in a word) to smaller units (e.g., onset-rimes, phonemes). Skills such as rhyming and alliteration develop earlier, and skills such as sound blending, segmenting, and manipulation of phonemes develop later. Activities related to blending, segmenting, and manipulating phonemes are the most important for improving reading. Table 7.1 presents a continuum for differentiating instruction for developing phonological awareness. Whereas phonological awareness encompasses the entire continuum, activities that focus on individual sounds in words describe *phonemic awareness*.

The more advanced skills of phoneme blending, segmenting, and manipulation are most related to success in learning to read (Hulme et al., 2012). This is an important point for teachers to remember because it should guide their instruction. The primary focus of phonemic awareness with young children is not rhyming; rather, it is increasing their awareness of the individual sounds in language and how each of these sounds can be represented by a letter or combination of letters. Remember, linking sounds to print is the most immediate goal.

The sequence for teaching phonemic awareness usually starts with teaching segmenting and blending words and syllables before teaching segmenting and blending onset-rimes and phonemes. However, some children vary in the acquisition of these skills. Therefore, instruction at the phoneme level should never be delayed until students understand rhyme or any other phonological awareness skill on the continuum.

Teaching Phonological Awareness and Phonics

Students with reading difficulties often have poor phonological awareness and benefit from explicit instruction in blending, segmenting, and manipulating sounds and mapping these sounds to letters as early as possible. As students learn the letter–sound correspondences, phonological tasks such as oral blending and segmenting of onset-rimes and phonemes can be paired with graphemes (letters), thereby explicitly teaching the relationship of speech to print—the alphabetic principle (Fricke, Bowyer-Crane, Haley, Hulme, & Snowling, 2012).

Teaching phonological awareness includes such activities as the following:

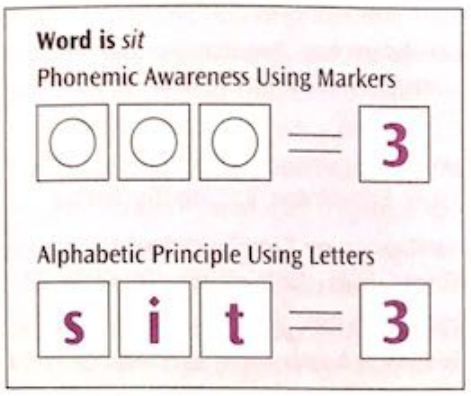
- Listening for words that begin with the same sound (e.g., having all the students whose name begins with /b/ line up)
- Clapping the number of syllables in words and phonemes in words (e.g., for *monument*, students clap 3 times for 3 syllables; or "p/a/t," clap 3 times for 3 phonemes)
- Blending and segmenting words by syllables and sounds (e.g., blend these syllables to make a word, "fab/u/lous"; blend these sounds to make a word, s/t/o/p).
- Segmenting and manipulating sounds and syllables (e.g., break the word *butterfly* into syllables—but/ter/fly; break the word *chair* into phonemes (or sounds) ch/ai/r).

Table 7.1 Differentiating Instruction: Phonological Awareness Continuum

Later Developing	
Skill	**Example**
Phoneme blending, segmentation, and manipulations	Blending phonemes into words, segmenting words into individual phonemes, and manipulating phonemes (e.g., deleting, adding, substituting, transposing) in spoken words
Onset-rime blending and segmentation	Blending/segmenting the initial consonant or consonant cluster (onset) with/from the vowel and consonant sounds spoken after it (rime)
Syllable blending and segmentation	Blending syllables to say words or segmenting spoken words into syllables
Sentence segmentation	Segmenting sentences into spoken words
Rhyme/alliteration	Matching the ending sounds of words/producing groups of words that begin with the same initial sound
Early Developing	

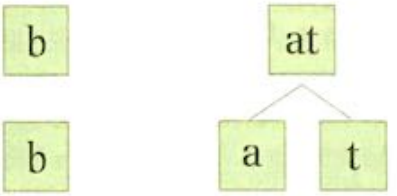
Source: Based on *First Grade Teacher Reading Academy* (Austin: University of Texas, Texas Center for Reading and Language Arts, 2009).

Figure 7.2 Using the Elkonin Procedure



To build blending and segmenting skills, a frequently used technique that assists students in learning to separate and blend sounds is the use of the Elkonin procedure, often referred to as Elkonin boxes (Elkonin, 1973). To watch a demonstration of how to use Elkonin boxes, check out **www.youtube: Using Elkonin Sound Boxes: Beach**. As a phonological task, students listen to a word and push a marker, block, or other small object into a printed square for each sound they hear (see Figure 7.2). As students gain knowledge about the letter–sound relationships, they can push or write letters in the boxes. It is one way in which an oral language activity can be made more visible and kinesthetic. Other ways are tapping one finger to the thumb for each sound or watching your mouth in a mirror and feeling the facial movements by placing your fingers on your cheeks and concentrating on how your mouth changes when different sounds are made.

In teaching phonological awareness to students who are having problems learning to read, it is important to determine the tasks that are difficult for the student and then to focus instruction according to the students' level of development and needs. For example, Emilia is a second-semester first grader who can segment and blend syllables and onset-rimes (e.g., s-it, f-at, r-un) but has great difficulty segmenting and blending individual phonemes. She has been using manipulatives and counting on her fingers to assist herself, but she is still having difficulty hearing the individual sounds. Emilia may benefit from instruction that demonstrates how the rime is further divided into individual sounds. Emilia could also watch and feel her mouth as she says each sound to see how it changes, as when saying the /a/ and then /t/, the sounds in the word *at*. For Emilia, who has learned the letter–sound correspondences for about six consonant sounds and the short vowel /a/, using letters in the boxes can help her understand how speech maps to print and to read words.



Differentiating instruction for teaching phonological awareness includes the following:

- Consider the students' levels of development and tasks that need to be mastered.
- Model each activity.
- Use manipulatives and movement to make auditory or oral tasks more visible.
- Move from easier to more difficult tasks, considering level of development (syllables, onset-rimes, phonemes), phoneme position (initial, final, medial), number of sounds in a word (*cat* is easier than *split*), and phonological features of the words (e.g., continuant consonants /m/, /n/, /s/ are easier than stops or clipped sounds /t/, /b/, /d/).
- Provide feedback and opportunities for practice and review.
- Make learning fun.

A number of programs and resources are available for teaching phonological awareness and phonics (see Figure 7.3 for a selected list), and several sources provide lists of children's books focused on different aspects of phonological awareness (Strickland & Schickedanz, 2009; Yopp & Yopp, 2009).

YouTube has several interesting presentations of phonics instruction, including one that demonstrates how to sound out a word. Go to **www.youtube: Teaching Reading, Phonics Lessons, and Sounding out Words**. Another demonstration shows kindergarten students who are reading using a phonics approach, **www.youtube: Phonics Instruction**.

Response to Intervention and Progress Monitoring: Phonological Awareness and Phonics

Successfully preventing reading disabilities and appropriately serving students with reading disabilities require an understanding of how response to intervention (RTI) and progress monitoring can be coordinated at the early grades to address phonological awareness and phonics.

Response to Intervention How do we know if students are responding to instruction in phonemic awareness and phonics? The answers to several questions can provide

Figure 7.3 Selected Programs and Resources for Teaching Phonological Awareness and Phonics

A Basic Guide to Understanding, Assessing, and Teaching Phonological Awareness by Torgesen, J. K., and Mathes, P.G., 2000, Austin, TX: PRO-ED.

Interventions for Reading Success by Haager, D., Domino, J.A., and Windmueller, M. P., 2006, Baltimore: Brookes.

Ladders to Literacy: A Kindergarten Activity Book, 2nd ed., by O'Connor, R. E., Notari-Syverson, A., and Vadasy, P. F., 2005, Baltimore: Brookes.

The Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech by Lindamood, P. A., and Lindamood, P., 1998, Austin, TX: PRO-ED.

Phonemic Awareness in Young Children: A Classroom Curriculum by Adams, M. J., Foorman, B. G., Lundberg, I., and Beeler, T., 1998, Baltimore: Brookes.

Phonological Awareness and Primary Phonics by Gunning, T. G., 2000, Boston: Allyn & Bacon.

Phonological Awareness Assessment and Instruction: A Sound Beginning by Lane, H. B., and Pullen, P. C., 2004, Boston: Allyn & Bacon.

The Phonological Awareness Book by Robertson, C., and Salter, W.,1995, East Moline, IL: LinguiSystems.

Phonological Awareness Training for Reading by Torgesen, J. K., and Bryant, B. R., 1994, Austin, TX: PRO-ED.

Road to the Code: A Program of Early Literacy Activities to Develop Phonological Awareness by Blachman, B. A., Ball, E.W., Black, R., and Tangel, D. M., 2000, Baltimore: Brookes.

Sounds Abound by Catts, H., and Olsen, T., 1993, East Moline, IL: LinguiSystems.

The Sounds Abound Program: Teaching Phonological Awareness in the Classroom (formerly Sounds Start) by Lechner, O., and Podhajski, B., 1998, East Moline, IL: LinguiSystems.

MyLab Education
Video Example 7.1

In this video, a teacher uses a phonological awareness skills test to determine her students' skill levels and needs. How does the teacher use the data from the assessment?

valuable information for determining students' responses to instruction:

- Have students received evidence-based reading instruction in phonemic awareness and phonics from their classroom teacher?
- Have students received adequate opportunities to respond, obtain feedback, and see modeling to scaffold their learning?
- How does the performance of students with low response compare to the performance of other students in the class?
- Have students with low phonemic awareness received instructional opportunities in small groups to acquire phonemic awareness and phonics?
- Are progress-monitoring data available to show the scope of the student's progress?

Answering these questions can help us determine whether students have received adequate instruction and thus whether their low response is a function of exceptional needs in the target area. Knowing the opportunities students have to learn helps us discern the severity of the problem.

How do we know when students are responding adequately to instruction in phonics and word study? If students are receiving evidence-based reading instruction in phonics and word study, we can determine whether they are low or high responders based on two essential criteria: (1) How do they respond relative to others in their class and others in the same grade in other classes in the school? and (2) What is the slope of their progress based on progress-monitoring measures acquired at least every 2 weeks? If a student's progress is significantly below that of other students in the class and/or the slope for the student's progress based on progress monitoring of phonics and word study is lower than expected, then the student may not be responding adequately to phonics and word-study instruction.

Progress Monitoring Determining students' performance in each of the building blocks of reading (e.g., phonemic awareness, phonics, word reading) is an essential first step in designing an effective intervention program. Teachers using progress monitoring can determine what students can do and what they need to learn. Thus, teachers can design an instructional program that is targeted to the needs of the students. Assessments that tell the teacher specifically how a student is performing and what else the student needs to know are referred to as *diagnostic assessments*. Using appropriate assessments, teachers can determine how the student's performance compares with those of other students of that same age or in that grade. These assessments are referred to as *norm-based assessments*. Appropriate assessments allow the teacher to monitor the progress of students and determine whether their progress is on track or whether the teacher needs to alter instruction to improve their performance. These assessments are referred to as *progress-monitoring assessment* or *curriculum-based measures*.

Progress monitoring of students' knowledge and skills in phonological awareness and the alphabetic principle provides teachers with necessary data to inform decision making

about grouping and instruction. A good progress-monitoring system will also allow teachers to determine whether any of the three important aspects of phonemic awareness are problematic: deletion, segmenting, and/or blending.

Progress monitoring in phonemic awareness assists teachers in identifying students who are at risk for failing to acquire phonemic awareness skills, and in monitoring the progress that students make in response to phonemic awareness instruction. Noted are two important aspects of phonemic progress-monitoring measures: They should be predictive of later reading ability, and they need to guide instruction. The following brief descriptions of tests and progress-monitoring measures may be useful for teachers as they make decisions about what methods they will use to monitor students' progress in phonemic awareness:

- *STAR: Early Literacy (SEL).* SEL is a computer-adaptive procedure that provides for ongoing assessment of early literacy skills, including general readiness to read, graphophonemic knowledge, phonemic awareness, phonics, comprehension, structural analysis, and vocabulary. The test takes approximately 10 minutes and can be used with students in grades kindergarten through 3. The program is available through **Renaissance Learning**.
- *AIMSweb Systems.* These systems offer progress-monitoring tools for letter-naming fluency, letter–sound fluency, phoneme segmentation fluency, and nonsense-word fluency. A total of 23 to 33 alternative forms are available for each grade, and ongoing technical support is provided. The program is available from **Edformation, Inc.**
- *Phoneme Segmentation Fluency.* This measure has 20 forms, with 20 words for each form. All forms have two to five phonemes for each of the 20 words. This measure is also individually administered; however, unlike the Yopp–Singer Test of Phoneme Segmentation, this measure is timed. Students are given 60 seconds to get as many phonemes correct as possible. Students receive points for each correct phoneme (word part), even if the entire word is not correct. Also, students are not provided corrective feedback for errors.

Web Resources

For a complete description of this phoneme segmentation fluency measure as well as information on technical adequacy, a video clip on administration and scoring, and examples of how to administer and score, see the following website: **http://dibels.uoregon.edu/**.

- *Comprehensive Test of Phonological Processing (CTOPP-2).* The CTOPP-2 is administered individually to students to determine their skill in phonological awareness and to guide the teacher in designing appropriate instruction. The test is designed for individuals between the ages of 5 and 24 and assesses three areas: phonological awareness, phonological memory, and rapid naming ability. If teachers are interested in assessing more specific areas of phonological awareness, additional subtests are available.

Web Resources

For further information on the CTOPP, see **http://www.proedinc.com**.

When selecting a measure, teachers consider the following:

- Does it accurately predict which students will have later difficulties in reading?
- Does it differentiate current high, average, and low performers?
- Does it determine which phonemic awareness skills they need to teach?
- Does it provide multiple forms so that they can administer it multiple times per year?
- Is it matched with the needs of the population of students they teach?

If the measure the teacher is considering provides an "affirmative" to the above questions, then the measure may serve the teacher very well.

Teaching Letter–Sound Correspondences

As students learn letter–sound correspondences and move to higher phonological awareness skills such as blending, segmenting, and manipulating sounds, it is important that they associate speech with print (Kilpatrick 2015; Moats 2009), thereby teaching the alphabetic principle or understanding that the sequence of letters in written words represents the sequence of sounds in spoken words. In Figure 7.2, while the task in the first row involves asking the students to segment words into sounds by moving a marker into a box for each sound (phonemic awareness), in the second row the students pair the sounds with letters by writing the letters in the boxes (alphabetic principle). Sometimes a phoneme is represented by more than one letter (e.g., consonant digraphs such as /sh/, /ch/, /ph/). One way to note this is by using a dotted line between the letters in the digraphs.

Knowledge of individual speech sounds is not particularly important when using oral language to converse. However, in learning to read and write and in developing

a second language, this knowledge can be quite valuable. Expert estimates of the number of speech sounds, or phonemes, in English vary from 40 to 52. For purposes of teaching students, most estimates are about 44. In learning to read and write, students learn more than 100 spellings (graphemes) for these phonemes. The letters that represent speech sounds in English are so high in number and so inconsistent that learning to read in English is much more difficult than in many other languages, for example, Spanish.

The largest division of phonemes is consonants (C) or vowels (V). Table 7.2 presents the 25 consonant sounds with their typical spellings and representative words that use these sounds. The table groups the sounds according to the manner in which they are articulated and highlights how the sounds are related.

Consonant sounds can also be distinguished by the flow of air as stops or continuants. Stops are aptly named because they are of short duration and the airflow is stopped completely for a short time (Moats, 2000). Stops (or clipped sounds) include /b/, /d/, /g/, /j/, /k/, /p/, /t/, and /ch/. In contrast, continuant sounds can be blended smoothly with the next sound without a break in the airflow (e.g., /f/, /s/, /v/, /w/, /z/, /sh/, /zh/, and /th/). The following are important points to remember when teaching consonants:

- CVC words that begin with continuants and end with stops are generally the easiest for blending the sounds (e.g., *fat*, *sap*).
- In some programs, when blending stops it is suggested to "bounce the stop sounds," such as /b-b-b-b-a-t-t-t/ for *bat*, so that students do not attach a "schwa" sound to the stop consonants (e.g., /buh/ and /tuh/).
- Nasal sounds are difficult to hear, sound different in the middle of words (e.g., *wet* or *went*), and are often omitted or substituted by emergent readers and writers. One strategy that students can use to check for a nasal is to gently touch their noses while saying the word and feel whether the nose vibrates.
- The sounds /r/ and /l/ can be difficult for some students because they are some of the last sounds that students learn to articulate and because their pronunciation varies considerably across languages (e.g., in Spanish, they may be trilled or rolled; in Japanese and Cantonese, the sounds of these two phonemes are not differentiated).

Table 7.2 Consonant Sounds, Typical Spellings, and Manner of Articulation

Consonant Sounds	Typical Spellings	Initial	Middle, Final	Manner of Articulation
/p/	p	pot, pick	stop	voiceless stop @ lips
/b/	b	bat, barn	cab, robe	voiced stop @ lips
/t/	t, -ed	time, tap	pot, messed	voiceless stop @ tongue behind teeth
/d/	d, -ed	deer, dinner	bad, ride, cried	voiced stop @ tongue behind teeth
/k/	c, k, ck, qu	kiss, can, quick	back, critique	voiceless stop @ back of mouth
/g/	g	gate, girl	rag	voiced stop @ back of mouth
/f/	f, ph	first, fit	graph, off, rough	voiceless fricative @ lip/teeth
/v/	v	very, vase	love	voiced fricative @ lip/teeth
/th/	th	think, thin	mother, either	voiceless fricative @ tongue between teeth
/th/	th	the, then	both, ether	voiced fricative @ tongue between teeth
/s/	s	sap, cent, psychology	less, piece	voiceless fricative @ tongue behind teeth
/z/	z, -es, -s, x	zip, xerox	has, dogs, messes, lazy	voiced fricative @ tongue behind teeth
/sh/	sh	ship, sure, chef	push, mission, ration	voiceless fricative @ roof of mouth
/zh/	z, s		azure, measure, beige	voiced fricative @ roof of mouth
/ch/	ch, tch	chip, chase	much, hatch	voiceless affricate @ roof of mouth
/j/	j, g	jump, gist	judge, soldier	voiced affricate @ roof of mouth
/m/	m	me, mom	him, autumn, comb	nasal @ lips
/n/	n, kn, gn, pn, mn	now, know, gnat, pneumonia, mnemonics	pan, sign	nasal @ tongue behind teeth
/ng/	ng		sing, english	nasal @ back of mouth
/y/	y	you, use	feud	voiced glide @ roof of mouth
/wh/	wh	where, whale		voiceless glide @ back of mouth with rounding of lips
/w/	w	we, witch	sewer	voiced glide @ back of mouth with rounding of lips
/h/	h	happy, who		voiceless glide @ throat
/l/	l	lady, lion	mail, babble	liquid @ tongue behind teeth
/r/	r	ride, write		liquid @ tongue behind teeth

Source: Adapted from V. Fromkin, R. Rodman, & N. Hyams, *Introduction to Language*, 11th ed. (Boston, MA: Cengage, 2017); and L. C. Moats, *Speech to Print: Language Essentials for Teachers* (Baltimore, MD: York Press, 2010).

This information about consonant sounds is helpful when teachers analyze students' oral reading and spelling. Students who know the letter–sound correspondences are more likely to substitute similar sounds. For example, it is more likely that students would substitute /n/ or /m/ for /ng/ than other sounds because they are nasals. Similarly, substitutions of /d/ for /b/ and /p/ for /b/ could well be related to the similar manner in which the sounds are articulated (i.e., /d/ and /b/).

The English language also makes use of consonant digraphs and consonant blends. A *consonant digraph* is two consonants that represent one sound (*ph* for /f/). A *consonant blend*, or *consonant cluster*, combines the sounds of two or more consonants so that they are clustered together. Table 7.3 provides a listing of the consonant digraphs and blends. When students omit a letter in a cluster, such as reading *fog* for *frog*, ask questions that lead them to see that the second sound in the blend is missing (e.g., "Listen, what sound do you hear after the /f/ in *frog*, /f-r-o-g/?" "What two sounds does the word *frog* begin with?"). It may also be helpful to have the students compare the words in written form or use boxes to assist students in seeing the missing letter.

The second category of sounds consists of vowels. In general, every English syllable must contain a vowel, and consonants are formed around the vowel. Vowel sounds can be among the most difficult for students to learn because the sounds are very similar. For example, consider "pin" and "pen"—we know that these two words are very different because we are proficient readers, but hearing the difference in the vowels in these words can be very difficult.

Table 7.3 Common Consonant Digraphs and Clusters

Common Consonant Digraphs	
Correspondencece	**Example Words**
ch = /ch/	chair, church
gh = /f/	rough, tough
kn =/n/	knot, knob
ng = /ˉ/	thing, sing
ph = /f/	phone, photograph
sc = /s/	scissors, scientist
sh = /sh/	shoe, shop
th = /th/	there, them
th = /th/	thumb, thunder
wh = /w/	wheel, where
wr = /r/	wrench, wrestle

Common Initial Consonant Clusters			
With *l*	**Example Words**	**With *s***	**Example Words**
Bl	blanket, black	*sc*	score, scale
Cl	clock, clothes	*sch*	school, schedule
Fl	flag, fly	*scr*	scream, scrub
Gl	glove, glue	*sk*	sky, skin
Pl	plum, place	*sl*	sled, sleep
Sl	slide, show	*sm*	smoke, smile
		sn	snake, sneakers
With *r*	**Example Words**	*sp*	spider, spot
Br	broom, bread	*st*	star, stop
Cr	crow, crash	*str*	street, stream
Dr	dress, drink	*sw*	sweater, swim
Fr	frog, from		
Gr	green, ground		
Pr	prince, prepare		

Common Final Consonant Clusters			
With *n*	**Example Words**	**With *l***	**Example Words**
Nce	prince, chance	*Ld*	field, old
Nch	lunch, bunch	*Lf*	wolf, self
Nd	hand, wind	*Lk*	milk, silk
Nk	tank, wink	*Lm*	film
Nt	tent, sent	*Lp*	help
		Lt	salt, belt
Other	**Example Words**	*Lve*	twelve, solve
Ct	fact, effect		
Mp	jump, camp		
Sp	wasp, grasp		
St	nest, best		

Source: Based on T. G. Gunning, *Creating Literacy Instruction for All Students*, 9th ed. (Boston, MA: Pearson/Allyn & Bacon, 2016).

As with the consonants, we can analyze students' oral reading and spelling to learn about their knowledge of vowel sounds. For example, substituting an /e/ for /a/ would be more likely than substituting an/e/ for /o/ because of the closeness of the sounds. It is also obvious why students often confuse /ir/, /er/, and /ur/ in spelling, because these three spellings represent the same sound. Thus, *bird* can be spelled *bird*, *burd*, and *berd*, and the student must use visual memory to remember that it is *bird*. The vowel sounds have different spelling patterns, as demonstrated in Table 7.4.

Students who are acquiring English and speak another language may not have developed fluency in all the English sounds. This is because different languages use different speech sounds, and students are most comfortable using the speech sounds of their native language.

Consequently, students may have difficulty not only pronouncing these sounds but also hearing them. Do not be surprised if *chin* is read and spelled as *shin* or *vase* is read and spelled as *base*.

Guidelines for Teaching Letter–Sound Correspondences

Students use letter–sound correspondences to decode words they are learning to read. Struggling readers benefit from learning to blend and segment sounds and map these sounds to the appropriate letter combinations so that they can decode and spell words. A number of programs have been developed using systematic approaches to introduce the letter–sound relationships and how to blend sounds to read words, for example: *Word Detectives: Benchmark Word Identification Program for Beginning Readers* (Gaskins et al., 2004); SRA: *Corrective Reading* (2008) and *Reading Mastery* (2008); *Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech*; *Alphabet Phonics* (Gander Publishing); *Kindergarten and 1st Grade Peer Assisted Learning* (Mathes, Torgesen, et al., 2001; **http://store.voyagersopris.com/pals-series/**). These programs have similar features of instruction that include:

- Teaching a core set of frequently used consonants and short vowel sounds that represent clear sounds and nonreversible letter forms (e.g., /a/, /i/, /d/, /f/, /g/, /h/, /l/, /n/, /p/, /s/, and /t/).
- Beginning immediately to blend and segment the sounds to read and spell the words and read the words in decodable text (i.e., text in which most of the words are composed of letter–sound correspondences that have been taught).
- Separating the introduction of letter sounds with similar auditory or visual features (e.g., /e/ and /i/, /m/ and /n/, /b/ and /d/).
- Using a consistent key word to assist students in hearing and remembering the sound (e.g., *a apple* /a/, *b boy* /b/).
- Teaching that some letters can represent more than one sound. For each letter, first teach the most frequent sound, and then teach other sounds (e.g., in English, /c/ in *cat* then /s/ in *city*, and /g/ in *gate* then /j/ in *Jim*; in Spanish, /g/ in *gato* [cat] then /h/ in *gemelo* [twin]).
- Teaching that different letters can make the same sound, such as the /s/ in *sit* and *city*.
- Teaching that sounds can be represented by a single letter or a combination of letters (e.g., /e/ in *me* and *meet*).
- Adding a kinesthetic component by having students trace or write the letter as they say the sound.
- Having students use mirrors and feel their mouths to see and feel how sounds are different.
- Teaching students how multiple letters can represent one sound (e.g., igh in *tight* represents the long vowel *i*).

MyLab Education
Video Example 7.2
Review your textbook's guidelines for teaching letter-sound correspondences. Consider the approaches used by the teacher in this video.

Table 7.4 Vowel Spellings

	Vowel Sound	Major Spellings
Short Vowels	/a/	rag, happen
	/e/	get, letter, thread
	/i/	wig, middle, event
	/o/	fox, problem, father
	/u/	bus
Long Vowels	/ā/	name, favor, say, sail
	/ē/	he, even, eat, seed, bean, key, these, either, funny, serious
	/ī/	hide, tiny, high, lie, sky
	/ō/	vote, open, coat, bowl, old, though
	/ū/	use, human, few
Other Vowels	/aw/	daughter, law, walk, off, bought
	/oi/	noise, toy
	/o͝o/	wood, should, push
	/o͞o/	soon, new, prove, group, two, fruit, truth
	/ow/	tower, south
	/@/	above, operation, similar, opinion, suppose
r Vowels	/ar/	far, large, heart
	/air/	hair, care, where, stair, bear
	/i(@)r/	dear, steer, here
	/@r/	her, sir, fur, earth
	/or/	horse, door, tour, more

Source: Based on T. G. Gunning, *Creating Literacy Instruction for All Students*, 9th ed. (Boston, MA: Pearson/Allyn & Bacon, 2016).

Knowing letter–sound correspondences is a key element in understanding the alphabetic principle and learning to decode and spell unknown words. However, programs that focus too heavily on teaching letter–sound relationships and not on putting them to use in reading connected text are likely to be ineffective. Through modeling and discussion, students need to understand that the purpose for learning these relationships is to apply them to their reading and writing activities.

MyLab Education
Video Example 7.3

What are sight words and why is it important for students to develop automaticity in recognizing sight words? The teacher in this video works with a small group of students who need extra help to learn sight words.

Family Participation in Beginning Reading

Parents or guardians are very interested in having information that will allow them to provide the best support possible to their children as they acquire the important early skills related to reading. Consider demonstrating some activities that family members can do at home and encouraging them to engage children in fun and meaningful activities that are associated with improved outcomes in reading. The National Center for Families Learning (**http://familieslearning.org/**) provides valuable resources at no cost to parents and families to support reading and literacy activities. Many of the ideas are fun family-based activities that are readily available, including how to cultivate readers and a parents' guide to reading and standards. Other resources are helpful to parents in better understanding reading difficulties and supporting their children, including the U.S. Department of Education (**https://www2.ed.gov/parents/read/resources/edpicks.jhtml**). Documents include "Helping Your Child Become a Reader," "Reading Tips for Parents," and "Put Reading First: Helping Your Child with Reading."

Word Identification, Decoding, and Word Study

What are the definitions of the seven main decoding strategies, and how does each contribute to successful word identification? Being able to quickly and easily recognize words is the key to successful reading (Ehri, 2004). Successful readers identify words automatically, and if they do not know a word, they have effective decoding strategies to decipher the word. Successful reading requires students to develop a sight word vocabulary (i.e., words that students recognize without conscious effort) and decoding strategies to support them when they encounter an unknown word.

What Is a Sight Word?

A *sight word* is one that students can read quickly and automatically with little delay. When reading words by sight, the words are accessed from information in memory, that is, from one's storehouse of words. For emergent readers, visual cues assist in recognizing familiar words when they are highly contextualized (e.g., a child recognizes *McDonald's* when it is presented with the golden arches but not when the word is presented without that context). Knowledge of letter–sound relationships serves as a powerful system that ties the written forms of specific words to their pronunciations and allows children to recognize words (e.g., *McDonald's* as an individual word). Students more efficiently store words in memory when they group or consolidate words by multiletter units such as onset-rimes, syllables, suffixes, prefixes, and base words. For example, if readers know -tion, in-, and -ing as multiletter units, then learning longer sight words such as *questioning* and *interesting* is easier. Thus, teaching key spelling patterns, prefixes and suffixes, and major syllable types can assist students in learning to automatically recognize words and read more fluently (Connor et al., 2011).

You can tell when readers are reading words by sight because they read the words as whole units, with no pauses between smaller units (syllables, sounds), and they read the words within 1 second of seeing them. To experience how powerful automatic word recognition is, look at Figure 7.4. Say the name of each picture as quickly as you can, and ignore the words printed on the pictures. Was it almost impossible to ignore the words? This occurs because you are processing the words automatically, in this case despite your intention to ignore them. It is particularly important that readers have multiple opportunities to practice reading and spelling words until they become automatic and have word identification or decoding strategies to assist them in decoding a word when they do not automatically recognize it.

Decoding Strategies for Identifying Words

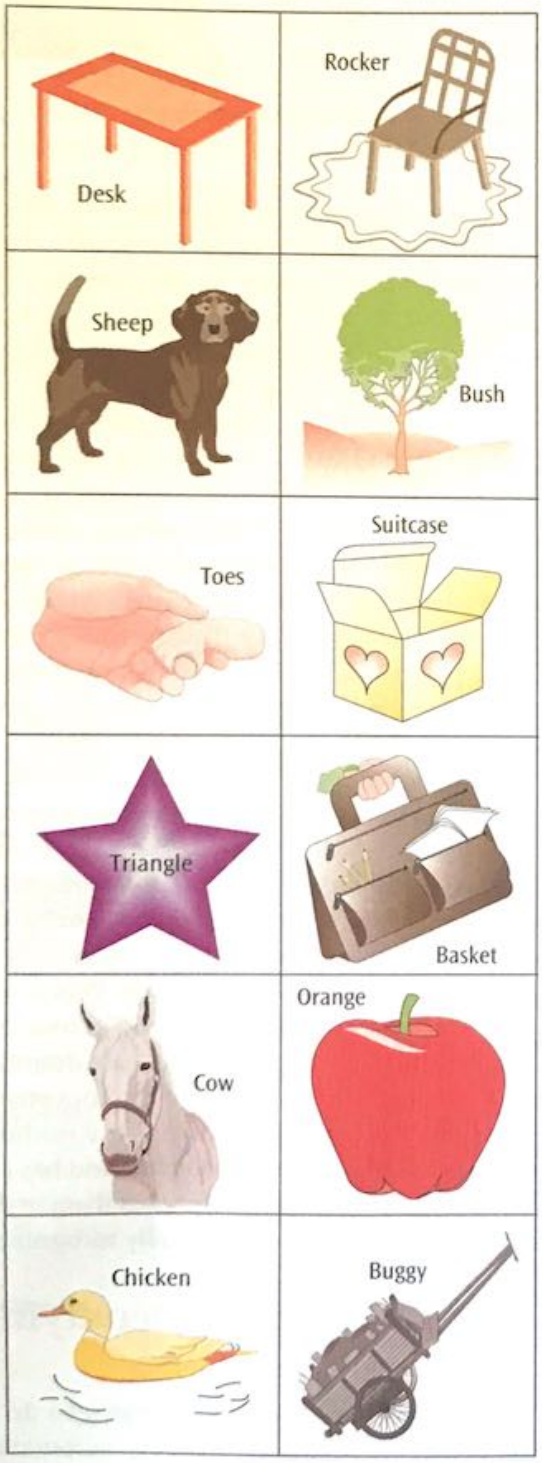
What decoding or word identification strategies do readers use to decode words they do not know automatically? Research on teaching struggling readers, including those with specific reading disabilities, would suggest that seven strategies are helpful in teaching these students to decode words (see Apply the Concept 7.2).

Phonic Analysis

Identify and Blend Letter–Sound Correspondences into Words This is referred to as *phonic analysis*, or *phonics*. This

Figure 7.4 Picture-Naming Task Demonstrating How Words Are Processed Automatically

SOURCE: Adapted from L. Ehri (1987), Learning to read and spell words, *Journal of Reading Behavior, 19*, pp. 5–11.



strategy builds on the alphabetic principle and assumes that students have basic levels of phonological awareness and knowledge of some letter–sound correspondences. It entails the process of converting letters into sounds, blending the sounds to form a word, and searching memory to find a known word that resembles those blended sounds. Teachers provide many cues to assist students in using phonic analysis to decode words:

- Cue the students to say each sound, and then have them say it fast.
- Demonstrate and have the students point to each letter sound as they say the sound, and then have them sweep their fingers under the word when they say it fast.
- Place letters apart when saying the sound, and then push the letters together when you say it fast.
- Begin with simple familiar VC (*in*) and CVC (*him*) words, and then move to more complex sound patterns, such as CCVC (*slim*), CVCC (*duck*), and CVCe (*make*).

Figure 7.5 provides a scope and sequence for teaching phonics.

7.2 Apply the Concept

Strategies for Decoding Unknown Words

- ***Phonic Analysis:*** Identify and blend letter–sound correspondences into words.
- ***Onset-rime:*** Use common spelling patterns (onset-rimes) to decode words by blending the initial sound(s) with the spelling pattern or by using analogy.
- ***Synthetic and Analytic Phonics.***
- ***Structural Analysis:*** Use knowledge of word structures such as compound words, root words, suffixes, prefixes, and inflectional endings to decode words and assist with meaning.
- ***Syllabication:*** Use common syllable types to decode multisyllabic words.
- ***Automatic Word Recognition:*** Recognize high-frequency and less predictable words and practice to automaticity.
- ***Syntax and Semantics:*** Use knowledge of word order (syntax) and context (semantics) to support pronunciation and confirm word meaning.
- ***Use Other Resources:*** Use other resources such as asking someone or using a dictionary.

Onset-Rime

Use Common Spelling Patterns to Decode Words by Blending One salient feature of the English language is the use of spelling patterns, also referred to as *onset-rimes, phonograms*, or *word families*. When using spelling patterns to decode an unknown word, students can segment the word between the onset (/bl/ in the word *blend*) and the rime (end) and then

blend the onset and rime to make the word (*blend*). Figure 7.6 presents a list of 37 common rimes that make almost 500 words (Wylie & Durrell, 1970). Guidelines for teaching onset-rimes follow the same guidelines as those suggested for teaching phonic analysis except that the word is segmented at the level of onset-rime rather than at the phoneme level. In contrast, Spanish does not use onset-rime to the extent that English does and, consequently, it is generally not taught. However, words that contain rhyming syllables can form word families, such as /sa/ in *masa* (flour), *tasa* (cup), and *casa* (home).

Figure 7.5 Scope and Sequence for Teaching Phonics

SOURCE: Based on Thomas G. Gunning, *Creating Literacy Instruction for All Students*, 9th ed. (Boston, MA: Pearson/Allyn & Bacon, 2016).

Level	Categories	Correspondence	Model Word	Correspondence	Model Word
Preparatory	Letter names, phonemic awareness, rhyming, segmentation, perception of initial consonants				
1	High-frequency initial consonants	*s* = /s/	sea	*r* = /r/	rug
		f = /f/	fish	*l* = /l/	lamp
		m = /m/	men	*g* = /g/	game
		t = /t/	toy	*n* = /n/	nine
		d = /d/	dog	*h* = /h/	hit
	Long vowels: word-ending single-letter vowels and digraphs	*e* = /ē/	he, me	*ee* = /ē/	bee, see
		o = /ō/	no, so		
	Lower-frequency initial consonants and *x*	*c* = /k/	can	*c* = /s/	city
		fo = /b/	boy	*g* = /j/	gym
		v = /v/	vase	*y* = /y/	yo-yo
		j = /j/	jacket	*Z* = /Z/	zebra
		p = /p/	pot	*x* = /ks/	box
		w = /w/	wagon	*x* = /gs/	example
		k = /k/	kite		
	High-frequency initial consonant digraphs	*ch* = /ch/	church	*th* = /th/	thumb
		sh = /sh/	ship	*wh* = /wh/	wheel
		th = /th/	this		
	Short vowels	*a* = /a/	hat	*u* = /u/	pup
		i = /i/	fish	*o* = /o/	pot
		e = /e/	net		
2	Initial consonant clusters	*st* = /st/	stop	*fr* = /fr/	free
		pl = /pl/	play	*fl* = /fl/	flood
		pr = /pr/	print	*str* = /str/	street
		gr = /gr/	green	*cr* = /kr/	cry
		tr = /tr/	tree	*sm* = /sm/	small
		cl = /kl/	clean	*sp* = /sp/	speak
		br = /br/	bring	*bl* = /bl/	blur
		dr = /dr/	drive		
	Final consonant clusters	*ld* = /ld/	cold	*mp* = /mp/	lamp
		lf = /lf/	shelf	*nd* = /nd/	hand
		sk = /sk/	mask	*nt* = /nt/	ant
		st = /st/	best	*nk* = /dk/	think
	Less frequent digraphs and other consonant elements	*ck* = /k/	lock	*ng* = /ng/	hang
		dge = /j/	bridge		
	Long vowels: final *e* marker	*a-e* = /a&/	save	*e-e* = /e&/	these
	i-e = /&&/	five	*u-e* = /u&/	use	*o-e* =
/o&/	hope				
	Digraphs and trigraphs	*ee* = /e&/	green	*ow* = /o&/	show
	ai/ay = /a&/	aim, play	*igh* = /&&/	light	*oa* =

(continued)

Figure 7.5 *(Continued)*

Level	Categories	Correspondence	Model Word	Correspondence	Model Word
/o&/	boat	*ea* = /e&/	bread		*ea* =
/e&/	bean				
	Other vowels	*ou/ow* = /ow/	out, owl	*oo* = /oo&/	book
	oi/oy = /oi/	oil, toy	*oo* = /oo&&/	tool	*au/aw* =
/aw/	author, paw				
	r vowels	*ar* = /ar/	car	*are* = /air/	care
	er = /&r/	her	*air* = /air/	hair	*ir* =
/&r/	sir	*ear* = /i(&)r/	fear		*ur* =
/&r/	burn	*eer* = /i(&)r/	steer		*or* = /or/
	for				
3	Consonants mission	*ti* = /sh/	action		*ssi* =
/sh/			*t,ti* = /ch/	future question	
	Consonant digraphs	*ch* = /k/	choir	*kn* = /n/	knee
	ch = /sh/	chef	*wr* = /r/	wrap	*gh* = /g/
	ghost	*ph* = /f/	photo		
	Vowels	*y* = /e&/	city	*o* = /aw/	off
	y = /&&/	why	*al* = /aw/	ball	*y* = /i/
	gym	*ew* = /u&/	few		*a* = /o/
	father		*e* = /i/	remain	

Figure 7.6 Thirty-Seven Common Rime Patterns from Primary-Grade Texts

-ack	-ail	-ain	-ake	-ale
-ame	-an	-ank	-ap	-ash
-at	-ate	-aw	-ay	
	-ell	-est		
-eat				
-ice	-ick	-ide	-ight	-ill
-in	-ine	-ing	-ink	-ip
-ir				
-ock	-oke	-op	-ore	-or
-uck	-ug	-ump	-unk	

Synthetic and Analytic Phonics

Teaching word analysis by having students learn individual letter–sound correspondences or rime patterns and then blending the sounds to make the word is referred to as a *synthetic method* for teaching word analysis. For example, if the word is *pan*, then the students would say each sound individually (/p/ /a/ /n/) or the onset-rime (/p/ /an/) and then blend them to make the word *pan*. Using this method, the students are saying the individual sounds or onset-rime and then *synthesizing* or combining them to make the word.

Teachers can also use an *analogy method* for teaching word analysis, thereby providing students with a means of decoding a word other than sounding it out or blending the sounds into a word. When teaching onset-rime, teachers cue the students to look at the unknown word to determine the spelling pattern (e.g., /an/). Then they think of the key word (e.g., *pan*) or other words with the same spelling pattern (*ran, than, tan*). The students then substitute the initial sound(s) of the unknown word for the initial sound(s) of the key word (*fat*). Cues that students can use to promote decoding by analogy are as follows:

"What words do I know that look the same?"

"What words do I know that end (or begin) with the same letters?"

Structural Analysis

Use Knowledge of Word Structures Such as Compound Words, Root Words, Suffixes, Prefixes, and Inflectional Endings to Decode Words and Assist with Meaning

Between the third and seventh grades, children learn from 3000 to 26,000 words. Most of these words are encountered through reading and learning to be aware of words you don't know the meaning of (word consciousness), and only a limited number are taught directly (M. F. Graves, 2006; Kame'enui & Bauman, 2012). Teach students, including secondary students, to analyze words for compound words, root words, prefixes, suffixes, and inflectional endings Reed, 2008) for the following reasons:

- It provides students with ways to segment longer, multisyllabic words into decodable (and meaningful) parts.
- It assists students in determining the meaning of words.

For example, the word *unbelievable* can be segmented into three parts, un-believe-able. Not only does chunking

make the word easier to decode, it also tells us about the meaning. In the case of *unbelievable*, *un-* means "not," and *-able* means "is or can be." Hence, *unbelievable* means "something that is not to be believed."

Teaching students to divide words into meaning parts (morphemes) is often first begun by analyzing compound words. Then high-frequency prefixes (e.g., dis-, re-, in-, un-), suffixes (e.g., -er/-or, -ly, -tion/-ion, -ness), and inflectional endings (e.g., -s, -es, -ing, -ed) can be taught. See Apply the Concept 7.3 to learn more about which prefixes, suffixes, and inflectional endings to teach.

Ideas and guidelines for teaching and reinforcing structural analysis include the following:

- Teach meanings along with recognition of the meaning parts.
- Explain and demonstrate how many big words are just smaller words with prefixes, suffixes, and endings.
- Write words on word cards, and cut the cards by meaning parts. Have students say each part and then put the word together and blend the parts to say the word. Discuss the meaning of each part.
- Ask students to sort or generate words by meaning parts. Following is an example:

People Who Do	Things That Do	More	Words That Have -er
reporter	computer	fatter	cover
geographer	heater	greater	master
runner	dishwasher	shorter	never

- Present words that have the same prefix or suffix but in which the prefix or suffix has different meanings. Ask students to sort words by their meanings. If students are sorting, leave space so that they can add more words. Following is an example:
- Ask students to decode words they do not know, by covering all but one part of the word and having them identify it, then uncovering the next part and identifying it, and so on. Then have them blend the parts to read the word.
- Make a class or student dictionary that has each word part, its meaning, and several example words.
- Develop word webs or maps that demonstrate how one root word can make a cadre of related words (see Figure 7.8).

Syllabication

Use Common Syllable Types Many students with reading disabilities have particular difficulty decoding multisyllabic words. This skill becomes critical by about third grade. Six basic syllable configurations or types can be identified in English spelling; these are presented in Table 7.5. The syllable types are useful because they encourage students to look for and recognize print patterns across words.

When teaching syllable types, emphasize that each syllable has one vowel sound. However, the vowel sound may be represented by one or more letters (e.g., CVCe, vowel team). Ideas for teaching include dialogues that promote discovering the generalization, word sorts by syllable types, and games to provide practice. For example, in teaching the CVCe (e.g., *cake, lime, pole, tube*), the following dialogue encourages students to induce the generalization:

Teacher: How many vowel sounds do you hear in each of these words? [Say *five, rope, cape, cube, kite, these.*]

Students: One.

Teacher: [Write *five, rope, cape, cube, kite, these.*] How many vowels do you see?

Students: Two.

Teacher: Which vowel sound do you hear? Tell me what is happening with the *e*.

Students: The first vowel is long, and you do not hear the *e*.

7.3 Apply the Concept

Which Prefixes, Suffixes, and Inflectional Endings Should You Teach?

How many prefixes do you need to teach? Four prefixes, un-, re-, in- (and im-, ir-, il- meaning *not*), and dis-, account for 58% of all prefixed words. If you add 14 more prefixes (en-/em-, non-, in-/im- [meaning *in*], mis-, sub-, pre-, inter-, fore-, de-, trans-, super-, semi-, anti-, and mid-), you will have accounted for about 95% of words with prefixes (White, Sowell, & Yanagihara, 1989). The inflectional endings of -s/-es, -ed, and -ing account for about 65% of words that have inflectional endings and suffixes. If you add the suffixes -ly, -er/or, -ion/-tion, -ible/-able, -al, -y, -ness, -ity, and -ment, you have accounted for over 85%. Other suffixes that are used frequently include -er/est (comparative), -ic, -ous, -en, -ive, -ful, and -less (White et al., 1989). Remember, it is important to teach the meanings along with how to decode them.

Demonstrate how adding the *e* to the end of CVC words makes the short vowel change to a long sound (*cap* becomes *cape*, *kit* becomes *kite*). For younger students, teachers may want to generate a story about how the *e* bosses the vowel and makes it a long vowel sound—hence, "The Bossy E." Books such as *Market Day for Mrs. Wordy* also demonstrate the concept.

Figure 7.7 Common Rime/Spelling Patterns

SOURCE: Thomas G. Gunning. *Creating Literacy Instruction for All Students*, 9th ed. (Boston, MA: Pearson/Allyn & Bacon, 2016). Copyright © 2016 by Pearson Education. Reprinted by permission of the publisher *of Reading Behavior, 19*, pp. 5–11.

	Vowel Sound	Major Spellings	Model Word
Short Vowels	/a/	rag, happen, have	cat
	/e/	get, letter, thread	bed
	/i/	wig, middle, event	fish
	/o/	fox, problem, father	mop
	/u/	bus	cup
Long Vowels	/ā/	name, favor, say, sail	rake
	/ē/	he, even, eat, seed, bean, key, these, either, funny, serious	wheel
	/ī/	hide, tiny, high, lie, sky	nine
	/ō/	vote, open, coat, bowl, old, though	nose
	/ū/	use, human	cube
Other Vowels	/aw/	daughter, law, walk, off, bought	saw
	/oi/	noise, toy	boy
	/o͝o/	wood, should, push	foot
	/o͞o/	soon, new, prove, group, two, fruit, truth	school
	/ow/	tower, south	cow
	/ə/	above, operation, similar, opinion, suppose	banana
r Vowels	/ar/	far, large, heart	car
	/air/	hair, care, where, stair, bear	chair
	/i(ə)r/	dear, steer, here	deer
	/ər/	her, sir, fur, earth	bird
	/i(ə)r/	fire, wire	tire
	/or/	horse, door, tour, more	four

Figure 7.8 Root Word Map of *Friend*

SOURCE: Adapted from C. S. Bos, N. Mather, H. Silver-Pacuilla, & R. Friedmann Narr (2000), Learning to teach early literacy skills—Collaboratively. *Teaching Exceptional Children, 32*(5), pp. 38–45.

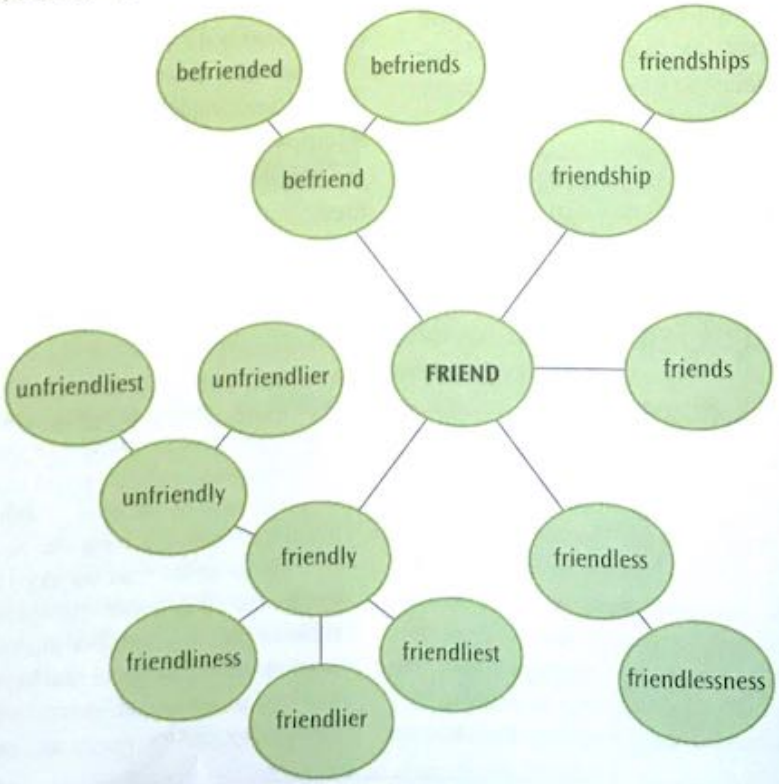


Table 7.5 Six Syllable Types

Type	Description/Examples
Closed (CVC)	Ends in at least one consonant; vowel is short: *bed, lost,* and *magnet*, dap- in *dapple*, hos- in *hostel*
Open (CV)	Ends in one vowel; vowel is long: mo- in *moment*, ti- in *tiger*, ta- in *table*, me
Consonant-Vowel-Consonant-e (CVCe)	Ends in one vowel, one consonant, and a final *e;* vowel is long, the final *e* is silent: *name, slope, five*, -pite in *despite*, -pete in *compete*
Vowel Team (CVVC)	Uses two adjacent vowels; sounds of vowel teams vary: *rain, sweet*, -geal in *congeal*, train- in *trainer*, bea- in *beagle*
R-controlled (CV+r)	Vowel is followed by /r/, and vowel pronunciation is affected by /r/: *fern, burn, car, forge, charter*
Consonant-le (C+le)	Unaccented final syllable with a consonant plus /l/ and silent *e:* -dle in *candle*, -tle in *little*, -zle in *puzzle*

Automatic Word Recognition

Automatically Recognize High-Frequency and Less Phonetically Regular Words Regardless of their letter–sound predictability, words need to be taught so that they are automatically recognized. Furthermore, it is not practical to teach students to analyze all words in the English language, because the patterns they follow may not occur frequently enough to teach. Figure 7.9 presents a list of 200 high-frequency words in order of their frequency of occurrence. This list is drawn from a compilation of words that occur in books and other materials read by schoolchildren and make up about 60% of the words found in these texts (Zeno, Ivens, Millard, & Duvvuri, 1995). For example, the most frequently occurring word, *the*, makes up about 2% of words.

The biggest payoff for students will be learning **words that occur most frequently**. The words *the, of, and, a, to, in, is, you, that*, and *it* account for more than 20% of the

Figure 7.9 High-Frequency Words

SOURCES: Based on Thomas G. Gunning, *Creating Literacy Instruction for All Children*, 9th ed. (Boston, MA: Pearson/Allyn & Bacon, 2016). Copyright © 2016 by Pearson Education. Reprinted by permission of the publisher. Adapted from S. M. Zeno, S. H. Ivens, R. T. Millard, & R. Duvvuri, *The Educator's Word Frequency Guide* (Brewster, NY: Touchstone Applied Science Associates, 1995).

1. the	30. had	59. would	88. find	117. same	146. different	175. am
2. of	31. but	60. other	89. use	118. right	147. numbers	176. us
3. and	32. what	61. into	90. water	119. look	148. away	177. left
4. a	33. all	62. has	91. little	120. think	149. again	178. end
5. to	34. were	63. more	92. long	121. also	150. off	179. along
6. in	35. when	64. two	93. very	122. around	151. went	180. while
7. as	36. we	65. her	94. after	123. another	152. tell	181. sound
8. you	37. there	66. like	95. word	124. came	153. men	182. house
9. that	38. can	67. him	96. called	125. three	154. say	183. might
10. it	39. an	68. time	97. just	126. word	155. small	184. next
11. he	40. your	69. see	98. new	127. come	156. every	185. below
12. for	41. which	70. no	99. where	128. work	157. found	186. saw
13. was	42. their	71. could	100. most	129. must	158. still	187. something
14. on	43. said	72. make	101. know	130. part	159. big	188. thought
15. are	44. if	73. than	102. get	131. because	160. between	189. both
16. as	45. will	74. first	103. through	132. does	161. name	190. few
17. with	46. do	75. been	104. back	133. even	162. should	191. those
18. his	47. each	76. its	105. much	134. place	163. home	192. school
19. they	48. about	77. who	106. good	135. old	164. give	193. show
20. at	49. how	78. now	107. before	136. well	165. air	194. always
21. be	50. up	79. people	108. go	137. such	166. line	195. looked
22. this	51. our	80. my	109. man	138. here	167. mother	196. large
23. from	52. then	81. made	110. our	139. take	168. set	197. often
24. I	53. them	82. over	111. write	140. why	169. world	198. together
25. have	54. she	83. did	112. sat	141. things	170. own	199. ask
26. not	55. many	84. down	113. me	142. great	171. under	200. turn
27. or	56. some	85. way	114. day	143. help	172. last	
28. by	57. so	86. only	115. too	144. put	173. read	
29. one	58. these	87. may	116. any	145. years	174. never	

words that students will encounter. In considering the ease of learning, nouns and words with a distinctive shape are generally easier to learn. With struggling readers, teachers should first teach the words that the students will encounter most frequently.

The following guidelines can be used for teaching less predictable words (Cunningham, 2008; Gunning, 2016):

- Teach the most frequently occurring words.
- Check to make sure that students understand word meaning, particularly if they have limited language, have a specific language disability, or are English language learners (ELLs).
- Introduce new words before students encounter them in text.
- Limit the number of words that are introduced in a single lesson.
- Reinforce associations by adding a kinesthetic component such as tracing, copying, and writing from memory.
- Introduce visually similar words (e.g., *where* and *were*, *was* and *saw*) in separate lessons to avoid confusion.
- Ask students to compare visually similar words (e.g., *what* with *when*) and highlight the differences between the two words.
- Provide multiple opportunities for students to read words in text and as single words until they automatically recognize the words.
- Review words that have been taught previously, particularly if the students miscall them when reading text.
- Provide opportunities for students to get automatic at recognizing words, such as with games that require quick word recognition or power writing (i.e., writing the words multiple times in a short length of time).

Syntax and Semantics

Use Knowledge of Word Order (Syntax) and Context (Semantics) to Support Pronunciation and Confirm Word Meaning What does it mean to use syntax and context to decode a word? For example, consider the following sentence: "He followed her through the street until she reached the __ and then turned and left." How might using syntax and context help you decide what word should fill in the blank if you don't know the word? You might be able to determine that the word is likely a noun because the word *the* precedes it. But what else might you learn using more alphabetic-related clues? It is very difficult to learn how to read a word using syntax and context alone, though they can help confirm the word. Let's assume you are using decoding with semantics and syntax and you know the first letter is a /d/ sound. You might conclude that the word is *door*. However, if you have sophisticated decoding skills, you will look beyond the first letter and use the vowel and final sound d/o/g and understand that the word is *dog*.

Many students with reading difficulties rely too heavily on syntax and context to decode unknown words (Briggs, Austin, & Underwood, 1984). Good readers use syntax and context to cross-check their pronunciation and monitor comprehension (Share & Stanovich, 1995; Torgesen, 1999). Key questions that students can ask are as follows:

> "Does that sound right here?"
>
> "Does that make sense?"
>
> "Am I reading 'through' the word and looking at all the parts and sounds?"

Students should first be taught to decode unknown words using phonics, structural analysis, and syllabication. Then students benefit from cross-checking the word by asking whether the word "make sense" in the context.

These multisyllable-word reading approaches to students who are having difficulty learning provide systematic instruction in letter–sound correspondences, phonic and structural analysis, and syllabication, which are powerful strategies for reading text in alphabetic writing systems. In addition, effective reading instruction provides numerous and varied opportunities to read and write, with most of the reader's attention focusing on comprehension.

Teaching Phonics, Word Recognition, and Word Study

How can the use of explicit and implicit phonics instruction be compared? Jamal, a third grader, has the lowest reading level in his class, and he is not making progress in reading. When he reads first-grade-level texts out loud, the teacher assists him in pronouncing about 30% of the words. He reads slowly and cannot remember previously known words. He knows fewer than 30 sight words, and he applies inconsistent approaches to decoding words. Sometimes he attempts to sound out a word letter by letter, but he has difficulty with the letter–sound relationships beyond the first several letters, particularly the vowel sounds, as well as difficulty in accurately blending the sounds. Hence, this approach rarely results in his reading the words correctly. Even though Jamal struggles in decoding the individual words, he can generally get the meaning of these simple texts. He has good oral language skills, and his life experiences result in his being familiar with much of the content of what he reads (he has adequate background knowledge). His math skills are at a third-grade

level, although he has not yet learned his math facts to the automatic level.

Lupita, another third grader, is also struggling to learn to read. Like Jamal, she is reading at the first-grade level, and she has a sight vocabulary of about 40 words in Spanish and 25 in English. When she entered kindergarten, she had underdeveloped oral language proficiency in both Spanish and English. She is in a bilingual program that initially taught reading in Spanish but began transitioning her to English in second grade. This year, much of the reading instruction is in English. Like Jamal, she has difficulty remembering words automatically, and her reading, even of very easy text, is slow and laborious. Her decoding strategies rely primarily on sounding out words, but she does not know many of the letter–sound correspondences and has difficulty blending. When she does not recognize a word, her most consistent strategy is to look to the teacher for assistance. Lupita's oral language proficiency in both Spanish and English is low. Although she communicates with her friends, she is shy about responding in class and appears to have limited background experiences to assist her in understanding what she is reading or learning. Lupita does well in basic math but has difficulty with word problems.

In beginning to work with students who have limited sight words and word identification strategies, like Jamal and Lupita, it is helpful not only to determine the students' current approaches to reading unfamiliar words, but also to determine what instructional approaches have been used previously, how consistently, for how long, and with what success. It is also helpful to use the research on effective reading instruction to inform the teacher's decision making. If the school the student is attending is using an RTI model, data about previous interventions may be available.

Beginning reading approaches that emphasize explicit, direct teaching of phonological awareness, and word identification using phonics and structural analysis result in greater gains in word recognition and comprehension than approaches in which phonological awareness and phonics are more implicitly taught (Kilpatrick, 2015; Stuebing et al., 2008). Consequently, explicit code instruction approaches should be part of a balanced reading approach for most students with special needs.

Web Resources

For helpful websites on learning more about explicit code instruction see:

- Reading Rockets **http://www.readingrockets.org**.
- International Dyslexia Association **http://www.interdys.org**.
- National Center for Improving Literacy **https://improvingliteracy.org/about**.
- National Center on Intensive Interventions **https://intensiveintervention.org/**.
- Meadows Center for Preventing Educational Risk at the University of Texas **http://www.meadowscenter.org**.
- The National Center for Learning Disabilities **https://www.understood.org/**.
- Florida Center for Reading at the Florida State University **http://www.fcrr.org**.
- LD Online **http://www.ldonline.org**.

Explicit Code (Such as Phonics) Instruction

Explicit code (e.g., phonics) approaches teach phonological awareness; letter–sound correspondences; the alphabetic principle; and the use of phonic analysis, structural analysis, and syllabication to decode unknown words. They emphasize three instructional features:

1. Systematic instruction of letter–sound correspondences and teaching students to blend the sounds to make words and segment sounds to spell words.
2. Scaffolded instruction so that modeling, guidance, and positive and corrective feedback are integral features of instruction.
3. Multiple opportunities for practice and review in various contexts (e.g., games with words cards, constructing sentences, reading texts).

Typically, the beginning reading materials associated with these approaches are controlled for the phonic and structural patterns they use; hence, they are referred to as *decodable text*. See Apply the Concept 7.4 for information about different text types and their purposes related to teaching students beginning reading.

Linguistic Approach: Onset-Rime and Word Families

The linguistic approach uses controlled text and word families (onset-rimes, phonograms, or spelling patterns) such as -at, -ight, and -ent to teach word recognition. This approach is particularly useful for students with reading problems.

Beck (2006) describes word-building sequences in which word types are oganized into four categories.

- The A category addresses CVC words and short vowels with blends and digraphs. Students learn to read simple word combinations with a minimal number of variations in letter–sound combinations and then increasingly more complex letter combinations. Words

7.4 Apply the Concept

Text Types and How They Facilitate Learning to Read

For students with learning and behavior problems, matching the text type with the level and purpose for instruction provides a scaffold that supports students as they learn to read and also provides them with opportunities to practice what they are learning (Palincsar & Duke, 2004). Beginning text can be classified into five general categories, each of which serves a different but complementary purpose for teaching students to read.

Type of Text and Characteristics	Support for Beginning Reading
Predictable/Pattern Language • Repeated language patterns with accompanying pictures that make it easy to predict what the rest of the text says • Control of language pattern, rhyme, rhythm, sentence structure, with difficulty increasing gradually across levels of text • Example of text: "I have a soccer ball (picture of soccer ball). I have a basketball (picture). I have a baseball (picture). I have a kick ball (picture). I like to play ball." **Types** • Patterned text with picture/text match • Cumulative pattern with information added on each page (e.g., "I ate an apple. I ate an apple and some grapes. I ate an apple, some grapes, and three bananas. I have a stomachache.") • Familiar poems and songs	**Emphasizes Student Use of** • Memory • Context and picture clues • Repeating language patterns • Repeating reading of text **Emphasizes Teacher Use of** • Modeling the concept that print has meaning • Modeling how books work (e.g., concept of a sentence, word; directionality) • Developing oral reading fluency and expression
Decodable Text • Text that introduces sound–symbol relationships, onset-rimes, and sight words in a controlled sequence so that difficulty level increases gradually related to phonics elements learned • Text that provides opportunities to apply the alphabetic principle and begin reading using the letter–sound correspondences and onset-rimes that have been taught • Control for words, sound–symbol relationships, onset-rimes, sentence structure • Example: "Peg had a pet pup. The pup was sad. The pup wanted to get fed, but Peg was in bed. The pup ran to Peg's bed." **Types** • Emphasizes onset-rimes such as "The fat cat sat on the hat." Sometimes called *linguistic readers*. • Emphasizes systematic introduction of sound–symbol relationships, usually starting with a few consonants and short vowels in CVC words. Sometimes called *phonic readers*.	**Emphasizes Student Use of** • Blending sounds and sounding out words to decode them • Using onset-rimes to make words and using analogy to decode words (e.g., "If I know *pit*, then this word must be *lit*.") • Learning to recognize less predictable words by sight as whole words (e.g., *was*, *come*) **Emphasizes Teacher Use of** • Modeling how to blend and segment sounds and providing independent practice in these skills • Developing students' letter–sound and simple spelling pattern knowledge • Sounding out words when unknown • Using onset-rime or word chunks to decode words • Developing independent, fluent reading of words, sentences, and connected text
Transitional Text • Integrates predictable and decodable text so that across levels predictability decreases as decodability increases • Example: "So she said to Grandpa, 'Can you rock Nick for a little while? Maybe you can get him to stop.' 'Sure,' Grandpa said. 'Now I can try.' But Grandpa had no luck. So he said to me. 'Can you play with Nick for a little while? Maybe you can get him to stop.' 'Sure,' I said. 'I will pick him up. It's my turn to try!'" (*Pick Up Nick*, by Kate McGovern, pp. 10–14).	**Emphasizes Student Use of** • Diminishing use of memory and context clues to identify words • Increasing use of blending sounds, sounding out words, and onset-rime to decode unknown words • Learning to recognize less predictable words by sight **Emphasizes Teacher Use of** • Modeling how to blend and segment sounds • Modeling how to sound out and use onset-rime to decode unknown words • Developing independent, fluent reading of words, sentences, and connected text

Easy Reader Text

- Series of books that gradually increase in difficulty across levels but are less controlled than predictable, decodable, or transitional texts
- Less control of words with more difficult high-frequency words, more polysyllabic words, and more complex sentences
- More complex plot and information and more text per page
- Some use of short chapters
- Example: "'And it means that we can begin a whole new year together, Toad. Think of it,' said Frog. 'We will skip through the meadows and run through the woods and swim in the river?'" (*Frog and Toad Are Friends*, by Arnold Lobel, p. 8).

Emphasizes Student Use of

- Simple syllabication, prefixes/suffixes, and chunking with polysyllabic words (e.g., *unprepared*), including complex spelling patterns (e.g., *fright*)
- Using sight word knowledge and working on automaticity and fluency

Emphasizes Teacher Use of

- Modeling more complex decoding strategies using more difficult words
- Developing student's oral reading fluency and expression
- Modeling comprehension strategies while reading aloud

Authentic Literature and Nonfiction

- Text that is written with limited regard for word or sentence difficulty and that provides more complex plots and information
- Varies widely in style and genre

Examples:

- *The Tale of Peter Rabbit* by Beatrix Potter
- *Owl Moon* by Jane Yolen
- *Bearman: Exploring the World of Black Bears* by Laurence Pringle

Emphasizes Student Use of

- Listening and reading comprehension strategies
- Developing knowledge of different writing styles and genres
- Applying advanced decoding strategies in less controlled texts

Emphasizes Teacher Use of

- Reading for enjoyment and modeling fluency when reading aloud
- Motivating students and creating interest in reading
- Discussing texts read and teaching listening/reading/comprehension strategies

like *sat, lit, sand* are learned first, progressing to more complex letter combinations such as *pitch, right,* and *fling*.

- The B category addresses instruction in CVCe words (e.g., *rate, bike, tone*). The words are organized based on the complexity of their patterns, and thus teachers can readily determine where students are having difficulty and what to reteach.
- The C category addresses instruction in long-vowel digraphs and vowel pairs that have the same vowel phoneme (e.g., *pail, day*).
- The D category focuses on *r*-controlled vowels such as *car, turn,* and *fern*.

Evidence-Based Practice

Linguistic Approach—Onset-Rime and Word Families

Procedures: The linguistic approach is built on a salient feature of the English language, that is, onset-rime. Look again at Figure 7.6 the list of 37 common rimes, and at the even more complete list in Figure 7.7. In teaching onset-rime, words are segmented and blended at the onset-rime level rather than the phoneme level, and words are taught in related groups that are often referred to as *word families* (e.g., -at: *cat, fat, bat, sat, rat;* -ight: *right, might, fight*). Sight words or less phonetically regular words are kept to a minimum. Figure 7.10 provides an example of a beginning text from a typical linguistic reader. These readers give the students extensive practice with the word families and systematically introduce onset-rime patterns. Figure 7.11 presents a list of selected linguistic reading programs and linguistic readers.

When students cannot identify a word family word, one strategy is to use a synthetic method of decoding by having them segment the word at the onset-rime level (e.g., for the word *flat*, cover the /fl/ and have the student read the /at/, then cover the /at/ and have the student give the sound /fl/, and then expose the whole word and have the student blend the two segments to make the word *flat*). Another strategy is to use an analogy method in which the students think of another word, or the key

Figure 7.10 Sample Linguistic Reading Story

Nat and the Rat

Nat is a cat.
She is a fat cat.
She likes to sit on her mat.
Dad likes to pat Nat.
One day Nat sat on Dad's lap for a pat.
Nat saw a rat.
She jumped off Dad's lap and ran after the rat.
That made Nat tired.
So Nat sat on her mat.

Figure 7.11 Selected Linguistic Reading Programs and Readers

The Basic Reading Series, Rasmussen, D., and Goldberg, L., 2000, Columbus, OH: SRA/McGraw-Hill.

Foundations, 2004, Bothell, WA: The Wright Group/McGraw-Hill.

Let's Read: A Linguistic Reading Program, Bloomfield, L., and Barnhart, R. K., 1965, 1994–1997, Cambridge, MA: Educators Publishing Service.

Merrill Reading Program, Bertin, P. et al., 1999, Columbus, OH: SRA/McGraw-Hill.

Preventing Academic Failure, Bertin, P., and Perlman, E., 1999, Columbus, OH: SRA/McGraw-Hill.

Ready Readers, 2004, Parsippany, NJ: Modern Curriculum Press/Pearson.

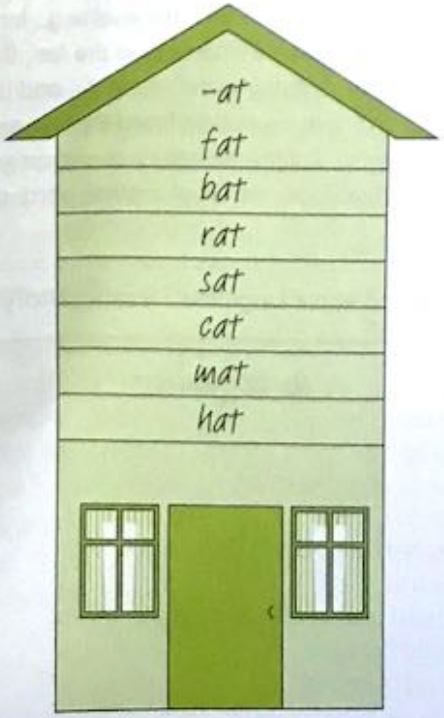
Sullivan's Programmed Reading (3rd ed.), Buchanan, C., 1988, Honesdale, PA: Phoenix Learning Resources.

Sundance Phonic Letters, Sounds, Readers, 1998–1999, Northborough, MA: Sundance.

word, they know with the same rime pattern (e.g., *cat*) and then substitute the initial sound(s) to make the word *flat*. Activities such as word sorts in which students sort words by word families, constructing word walls using onset-rime patterns, making word family houses (see Figure 7.12), and playing games such as Word Family Concentration and Can You Write a Word That Rimes With are all ways of reinforcing onset-rime patterns.

Comments: Teaching students about onset-rime and word families gives them another context for understanding the alphabetic principle and how English sounds map to print. It also reinforces the phonological awareness skill of rhyming. The use of a linguistic approach and linguistic readers provides struggling readers with multiple opportunities to learn and practice onset-rime patterns. Some students benefit from decoding at the phoneme level (e.g., /c-a-t/) in addition to learning decoding at the onset-rime level (e.g., /c-at/). Students with reading problems who are instructed in both these decoding methods make the greatest gains in reading. Several cautions should be mentioned in regard to this approach. First, like other explicit code instruction, the texts often provide limited opportunities for the development of comprehension. Therefore, the use of children's narrative and expository literature should be incorporated into the reading program to develop listening comprehension. To demonstrate this point, reread the text given in Figure 7.10, and then try to generate five comprehension questions. Second, some words that are introduced in a family may represent unfamiliar or abstract concepts. For example, when learning the -og family, a student may be asked to read about "the fog in the bog."

Figure 7.12 Word Family House



Reading Mastery and Corrective Reading *Reading Mastery Signature Edition* (Engelmann et al., 1995) and *Corrective Reading* (Engelmann et al., 1999) are highly structured, systematic reading programs that use a direct instruction model for teaching and a synthetic method for teaching phonics and structural analysis. These programs directly teach individual sound–symbol relationships, blending of sounds, and how to build these sounds into words. The programs include components in decoding and comprehension, with comprehension focusing on the systematic development of logical reasoning skills and the use of questioning to promote comprehension. Whereas *Reading Mastery* is designed for elementary-level students, *Corrective Reading* is designed for students in grades 4 through 12 who have not mastered decoding and comprehension skills. Both programs are best taught in small- to medium-sized groups.

MyLab Education
Video Example 7.4
This video illustrates a Corrective Reading lesson. What strategies does the teacher use to promote progress?

Evidence-Based Practice

Reading Mastery and Corrective Reading

Procedures: *Reading Mastery* and *Corrective Reading* are built on principles of direct instruction (Carnine et al., 2010), which for reading include the following:

- Design instruction to maximize the amount of time students are engaged (e.g., students work in small groups with teacher;

students give responses in unison after adequate wait time so that all students have time to think).

- Teach students to rely on strategies rather than require them to memorize information (e.g., teach several letter sounds such as /m/, /t/, /s/, /f/, /a/, and /i/ and the sounding-out strategy to decode words).
- Teach procedures to generalize knowledge (e.g., have students apply the sounding-out strategy to new sounds to build additional words).
- Use a teaching format that includes an introduction stage, followed by guided practice, independent practice, and review.
- Teach to mastery (specific criterion level).
- Teach one skill or strategy at a time.
- Systematically teach skills and strategies in a cumulative manner.
- Teach prerequisite knowledge or skills first (e.g., sounds of letters before words).
- Introduce instances that are consistent with the strategy before exceptions (e.g., teach consistent CVCe words such as *gave* and *made* before exceptions such as *have*).
- Introduce high-utility knowledge before less useful knowledge (e.g., teach frequent irregular words such as *of* and *was* before less frequent ones such as *heir* and *neon*).
- Teach easy skills before more difficult ones.
- Introduce separately any information and strategies that are likely to be confused (e.g., letters *b* and *d* and words *were* and *where*).
- Provide systematic review and practice.
- Monitor student performance, and provide corrective feedback.
- Use a reinforcement system that promotes student engagement and learning.

In both programs, students are taught a consistent method of responding to sounds and sounding out words. Using the guide in Figure 7.13, teachers touch the first ball of the arrow and cue as follows:

"Say it with me or sound it out. Get ready."

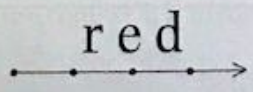
They touch quickly under each sound, saying each sound: /rrreeed/. They repeat until students are consistent and then cue as follows:

"Say it fast. What sound or what word?"

They repeat until students consistently respond with the sound or word.

In both programs, the teacher is given specific procedures to follow, including scripted lessons. These scripted lessons specify what the teacher is to say and include hand signals. Part of an early lesson from *Corrective Reading: Word Attack Basics—Decoding A* (Engelmann et al., 2002) is presented in Figure 7.14. Each lesson contains multiple exercises that focus on word-attack skills such as sound identification, pronunciations, say the sounds, word reading, sentence reading, story reading, and spelling from dictation. Lessons are designed to last from 30 to 50 minutes with time provided for direct teaching, group reading, individual reading practice, and monitoring of progress with feedback. Both programs have placement tests.

Figure 7.13 Guide for Sounding Out a Word



Whereas *Corrective Reading* uses standard print, the initial levels of *Reading Mastery* (Engelmann & Bruner, 1995) employ modified print that includes marking the long vowel sounds and reducing the size of silent letters (see Figure 7.15). Both programs provide for reading of decodable text, though *Corrective Reading* emphasizes reading expository texts.

Corrective Reading teaches skills in word identification, including word attack, decoding strategies, and skill application; and skills in comprehension, including thinking basics, comprehension skills, and concept applications. The program provides daily feedback and has a built-in reinforcement system.

Comments: Research has demonstrated that these programs are effective for improving the reading skills of students with reading difficulties and students from disadvantaged backgrounds (e.g., Rupley et al., 2009; Weiser & Mathes, 2011). Much of the teaching of phonic analysis skills is conducted in an explicit manner, which has been demonstrated to be advantageous for students with learning and behavior problems (Weiser & Mathes, 2011). Several cautions should be noted. First, these programs rely heavily on oral presentation by the teacher and oral responses and reading by the students. Second, the programs are highly scripted, making modifications difficult. Third, the nonstandard print used with Levels I and II of *Reading Mastery* may limit some students' access to other decodable books. Although other books with the nonstandard print are available, the number is limited.

English Language Learners and Reading Difficulties To what extent are the practices identified for phonological awareness and phonics appropriate for students who are ELLs? If they are appropriate, how can teachers facilitate their acquisition of these skills in English? Unfortunately, we know substantially more about teaching students with reading difficulties who are monolingual English students than about teaching students who are ELLs. However, a growing knowledge base informs our instruction in early reading with ELLs (Shanahan & Beck, 2006; Vaughn, Cirino, et al., 2006; Vaughn & Ortiz, 2008). A summary of findings reveals:

- ELLs who were given direct instruction in early reading in English benefited in the number of words read correctly per minute (Gunn, Biglan, Smolkowski, & Ary, 2000).
- Bilingual students with significant reading problems who participated in 22 tutoring sessions in a systematic and explicit approach to phonics and word and sentence reading significantly improved on word identification when compared with controls (Denton, Anthony, Parker, & Hasbrouck, 2004).

Figure 7.14 Portion of an Early Lesson from *Corrective Reading*

SOURCE: S. Engelmann, L. Carnine, & G. Johnson, *Corrective Reading: Word-Attack Basics, Teacher Presentation Book I—Decoding A* (Columbus, OH: SRA/McGraw-Hill, 1999), pp. 26–29. Reprinted by permission of the McGraw-Hill Companies.

Exercise 2
Pronunciations

Note: Do not write the words on the board. This is an oral exercise.

Task A

1. Listen. He was mad. [Pause.] **Mad.** Say it. [Signal.] Mad.
2. Next word. Listen. They wrestled on a mat. [Pause.] **Mat.** Say it. [Signal.] *Mat*.
3. Next word: ram. Say it. [Signal.] *Ram*.
4. [Repeat step 3 for *sat*, *reem*, seem.]
5. [Repeat all the words until firm.]

Task B Sit, rim, fin

1. I'll say words that have the sound iii. What sound? [Signal.] iii. Yes, iii.
2. [Repeat step 1 until firm.]
3. Listen: **sit, rim, fin**. Your turn: **sit**. Say it. [Signal.] *Sit*. Yes, *sit*.
4. Next word: **rim**. Say it. [Signal.] *Rim*. Yes, *rim*.
5. Next word: **fin**. Say it. [Signal.] *Fin*. Yes, *fin*.
6. [Repeat steps 3–5 until firm.]
7. What's the middle sound in the word rmiiimmm? [Signal.] *iii*. Yes, *iii*.
8. [Repeat step 7 until firm.]

Exercise 3
Say the Sounds

Note: Do not write the words on the board. This is an oral exercise.

1. First you're going to say a word slowly without stopping between the sounds. Then you're going to say the word *fast*.
2. Listen: *ssseee*. [Hold up a finger for each sound.
3. Say the sounds in [pause] *ssseee*. Get ready. [Hold up a finger for each sound.] ssseee. [Repeat until the students say the sounds without stopping.]
4. Say it fast. [Signal.] *See*.
5. What word? [Signal.] *See*. Yes, *see*.
6. [Repeat steps 2–5 for *sad, mad, mat, me, seed, in, if, sat, ran, rat*.]

Exercise 4
Sound Introduction

1. [Point to *i*.] One sound this letter makes is iii. What sound? [Touch.] iii.
2. [Point to *d*.] This letter makes the sound *d*. What sound? [Touch.] *d*.
3. Say each sound when I touch it.
4. [Point to *i*.] What sound? [Touch under] i. iii.
5. [Repeat step 4 for d, e, d, r, t, s, ă, m.]
   To correct:
   a. [Say the sound loudly as soon as you hear an error.]
   b. [Point to the sound.] This sound is_____. What sound? [Touch.]
   c. [Repeat the series of letters until all the students can correctly identify all the sounds in order.]
6. [Point to the circled letters.] The sound for one of these letters is the same as the letter name. That's the name you say when you say the alphabet.
7. [Point to *i*.] Listen: iii. Is that a letter name? [Signal.] No. Right, it isn't.
8. [Point to *a*.] Listen: **ăăă**. Is that a letter name? [Signal.] *No*. Right, it isn't.
9. [Point to *e*.] Listen: **eee**. Is that a letter name? [Signal.] *Yes*. Yes, it is. Remember, the sound you're learning for eee is the same as the letter name.

i	**d**	**e**
d	**r**	**t**
s	**a**	**m**

Individual Test

I'll call on different students to say all the sounds. If everybody I call on can say all the sounds without making a mistake, we'll go on to the next exercise. [Call on two or three students. Touch under each sound. Each student says all the sounds.]

Exercise 6
Word Reading

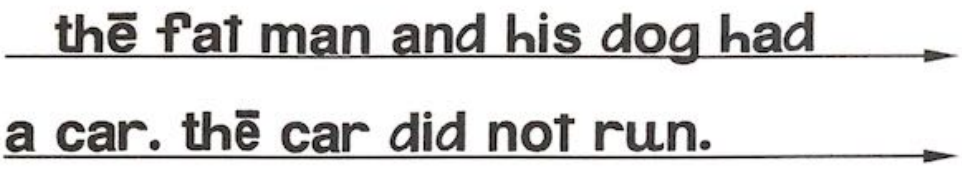
Task A Sat

1. Say each sound when I touch it.
   [Point to *a*.] What sound?
   [Touch under *s*.] sss.
   [Point to *a*.] What sound?
   [Touch under *a*.] **ăăă**.
   [Point to *t*.] What sound?
   [Touch under *t*.] *t*.
2. [Touch the ball of the arrow for *sat*.]
   Now I'm going to sound out the word. I won't stop between the sounds.
   [Touch under *s, a, t* as you say.] **sssăăă.t.**
   [Point to *t*.] What sound?
3. [Touch the ball of the arrow.] Do it with me. Sound it out. Get ready.
   [Touch under *s, a, t*.] **sssaaat**. [Repeat until the students say the sounds without pausing.]
4. Again. Sound it out. Get ready. [Touch under *s, a, t*.] **sssaaat**. [Repeat until firm.]
5. All by yourselves. Sound it out. Get ready. [Touch under *s, a, t*.] **sssaaat**. [Repeat until firm.]
6. [Touch the ball of the arrow.] Say it fast. [Slash right, along the arrow. *Sat*.] Yes, you read the word *sat*.

s a t

Figure 7.15 Sample from a Story from *Reading Mastery: Rainbow Edition*

SOURCE: S. Engelmann & E. C. Bruner, *Reading Mastery I: Rainbow Edition—Storybook I* (Columbus, OH: SRA/McGraw-Hill, 1995), pp. 53–54. Reprinted by permission of the McGraw-Hill Companies.



- Moderate-to-high effect sizes were reported for word attack, passage comprehension, phoneme segmentation, and oral reading fluency among second-grade ELLs at risk for reading disabilities who were participating in 58 sessions (35 minutes each) of supplemental intervention in group sizes of one to three students (Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003). Only three students made less than 6 months' growth during the 3-month intervention.
- In a study of young children with problems learning to read in English but who spoke Sylheti (a dialect from Bangladesh), students who participated in Jolly Phonics rather than Big Books made significant gains on phonics recognition and recall and writing sounds, as well as on reading words and reading nonwords (Stuart, 1999). Findings indicate that a more structured, systematic approach that includes phonics resulted in better outcomes for ELLs than interventions without these elements.
- Young bilingual students (Spanish/English) with low literacy and oral language skills taught to read in English made considerable gains over their first-grade year and maintained these advantages into second grade (Vaughn, Cirino, et al., 2006; Vaughn, Mathes, et al., 2006). Similarly, young bilingual students (Spanish/English) with low literacy and oral language skills taught to read in Spanish also made considerable gains and outperformed comparison students and maintained these gains into second grade (Vaughn, Cirino, et al., 2006; Vaughn, Linan-Thompson, et al., 2006).

Do you need to teach bilingual readers how to read differently than you teach monolingual students how to read? Fundamentally, all students learn to read in the same way whether they are bilingual or monolingual. Bilingual students learning English will need additional language and vocabulary supports and mechanisms for linking what they know in their first language to their second language. Good readers—whether they are monolingual English or ELLs—rely primarily on decoding words (understanding the sound-to-print correspondence, or alphabetic principle). They do not rely primarily on context or pictures to identify words. When they use context, it is to confirm word reading or to better understand text meaning. Well-developed phonics instruction helps ELLs develop the skills and strategies they need to effectively and efficiently establish a map for making sense of how English language works in print. As with monolingual students, phonics instruction is a piece of the reading instruction, not the entire program. Good phonics instruction is well integrated into language activities, story time, and small-group support to create a balanced reading program. Learning to read in languages in which the print is less consistently connected to sounds (like English) takes longer than learning to read in languages that have more consistent orthographies, such as Spanish.

Multisensory Structured Language Instruction Multisensory structured language programs (**https://dyslexiaida.org/multisensory-structured-language-teaching-fact-sheet/**) combine systematic explicit teaching of phonemic awareness, the alphabetic principle, phonics and structural analysis, syllabication, and decoding with activities that incorporate the visual, auditory, kinesthetic (movement), and tactile (touch) (VAKT) modalities. Multisensory structured language instruction was developed in the 1930s by Samuel Orton, a neuropathologist, and Anne Gillingham, a school psychologist. They developed reading remediation methods that built associations between the modalities such as "having the child trace [the letter] over a pattern drawn by the teacher, at the same time giving its sound or phonetic equivalent" (Orton, 1937, p. 159) or teaching spelling through analysis and writing of the sequence of sounds in words. The content of multisensory structured language programs includes teaching phonology and phonological awareness; sound–symbol associations that must be mastered in two directions—visual to auditory and auditory to visual; syllable instruction; morphology syntax; and semantics. These programs use the following instructional features or principles (Birsh, 2011):

- Multisensory presentation of VAKT modalities are used simultaneously to enhance memory and learning.
- Systematic and cumulative progression that follows the logical order of the language, moves from easy to difficult, and provides systematic review to strengthen memory.

- Direct instruction that entails the explicit teaching of all concepts, skills, and strategies.
- Systematic practice of decoding and spelling skills at the word, sentence, and text levels in controlled, decodable text.
- Diagnostic teaching that requires teachers to be adept at individualizing instruction on the basis of careful and continual assessment of students' learning.
- Instruction that incorporates synthetic methods (teaching the parts and how they work together to make a whole) and analytic methods (teaching the whole and how it can be broken down into its component parts).

These programs are designed for students with dyslexia or those who are experiencing substantial difficulty learning to read. Examples of multisensory structured language programs in addition to other structured reading programs are presented in Figure 7.16. The Gillingham-Stillman method (Gillingham & Stillman, 1997) is described in more detail. It is designed to be implemented by highly trained and skilled teachers who develop their lessons using a prescribed format. For more information on training, see **Orton Academy**.

Daily lessons applying the Orton-Gillingham Approach last between 45 and 60 minutes and typically include the following elements: (1) letter and sound review; (2) instruction in a new phonogram (letter–sound relationship); (3) practice reading selected words that represent previously learned letter–sound relationships (e.g., students were taught the sounds s/p/t/f/m/r/a/e, so students practice reading words *pet, at, map*); (4) students practice writing sounds and sound combinations dictated by the teacher; (5) same as number 4 with words previously taught; and (6) oral reading of controlled text. All of the lessons are responsive to the progress and needs of students.

Figure 7.16 Selected Phonics Reading Programs

Alphabetic Phonics and Foundations for Literacy, Cox, A. R., Cambridge, MA: Educators Publishing Service.

Fundations: Wilson Language Basics for K–3, Wilson, B. A., 2005, Millbury, MA: Wilson Language Training Corporation.

The Herman Method for Reversing Reading Failure, Herman, R. D., 1993, Sherman Oaks, CA: Herman Method Institute.

Language! The Comprehensive Literacy Curriculum, Greene, J. F., Longmont, CO: Sopris West.

Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech: The LiPS Program, Lindamood, P., and Lindamood, P., Austin, TX: PRO-ED.

Project Read, Enfield, M. L., and Greene, V., 2006, Bloomington, MN: Language Circle Enterprise.

Read Well, Sprick, M., Longmont, CO: Sopris West.

Recipe for Reading: A Structured Approach to Linguistics, Traub, N., Bloom, F. et al., 2000, Cambridge, MA: Educators Publishing Service.

Wilson Reading System, Wilson, B. A., 2004, Millbury, MA: Wilson Language Training Corporation.

The Writing Road to Reading, 5th ed., Spalding, R. B. and North, M. E., 2003, Phoenix, AZ: Spalding Educational International.

MyLab Education
Video Example 7.5

The students in this video use word sorts to understand word families and improve reading and spelling. Consider the value of using word study in reading, writing, and spelling.

Evidence-Based Practice

Teaching Phonic Generalizations

Procedures: This method teaches students how to identify words by teaching phonic generalizations and how to apply these generalizations in reading and spelling. It is designed to be used as the exclusive method for teaching reading, spelling, and penmanship for a 2-year period at minimum.

The method is introduced by discussing the importance of reading and writing, how some children have difficulty learning to read and spell using whole-word methods, and how this method has helped other students. Thereafter, a sequence of lessons is completed, beginning with learning the names of the letters and the letter sounds, learning words through blending sounds, and reading sentences and stories.

Teaching Letters and Sounds. The teaching of letter names and letter sounds uses associations between visual, auditory, and kinesthetic inputs. Each new sound–symbol relationship or phonogram is taught by having the students make three associations:

1. *Association I (reading).* Students learn to associate the written letter with the letter name and then with the letter sound. The teacher shows the students the letter. The students repeat the name. The students learn the letter sound by using the same procedure.

2. *Association II (oral spelling).* Students learn to associate the oral sound with the name of the letter. To do this, the teacher says the sound and asks the students to give its corresponding letter.

3. *Association III (written spelling).* The students learn to write the letter through teacher modeling, tracing, copying, and writing the letter from memory. The students then associate the letter sound with the written letter by the teacher directing them to write the letter that has the _____ sound.

The following six features are important to note in teaching these associations:

1. Cursive writing is preferred and suggested over manuscript.
2. Letters are always introduced by a key word.
3. Vowels and consonants are differentiated by different-colored drill cards (e.g., white for consonants, salmon for vowels).
4. The first letters introduced (i.e., *a, b, f, h, i, j, k, m, p,* and *t*) represent clear sounds and nonreversible letter forms.
5. Drill cards are used to introduce each letter and to provide practice in sound and letter identification.
6. The writing procedure is applied to learning all new letters. The procedure for writing is as follows:
   a. The teacher makes the letter.
   b. The students trace the letter.
   c. The students copy it.
   d. The students write it from memory.

Teaching Words. After the first 10 letters and sounds have been learned by using the associations, students begin blending them into words. Words that can be made from the 10 letters are written on yellow word cards and are kept in student word boxes (jewel cases). Students are taught to read and spell words.

To teach blending and reading, the letter drill cards that form a word (e.g., *b—a—t*) are laid out on the table or put in a pocket chart. The students are asked to give the sounds of the letters in succession, repeating the series of sounds again and again with increasing speed and smoothness until they are saying the word. This procedure is used to learn new words. Timed activities are used to give the students practice reading the words.

To teach spelling, the analysis of words into their component sounds should begin a few days after blending is started. To teach this method of spelling, the teacher pronounces a word the students can read, first quickly and then slowly. The teacher then asks the students, "What sound did you hear first?" and then asks, "What letter says /b/?" The students then find the *b* card. When all cards have been found, the students write the word. Gillingham and Stillman (1973) stress the importance of using this procedure for spelling. After the teacher pronounces /bat/:

1. Students repeat.
2. Students name letters *b-a-t*.
3. Students write, naming each letter while forming it, */b-a-t/*.
4. Students read *bat*.

This procedure is referred to as *simultaneous oral spelling (SOS)*. Gillingham and Stillman comment that after a few days of practice in blending and SOS, it should be an almost invariable routine to have students check their own errors. When a word is read incorrectly, students should be asked to spell what they have just said and match it against the original word. When a word is misspelled orally, the teacher may write the offered spelling and say, "Read this [e.g., *bit*]." The students would respond, "Bit." The teacher would say, "Correct, but I dictated the word /bat/."

As the students continue to learn and practice new words, they also continue to learn new sound–symbol associations, or phonograms. As new phonograms are introduced, more and more words are practiced and added to the word boxes. An example of a daily lesson might be the following:

1. Practice Association I with learned phonograms.
2. Practice Association II with learned phonograms.
3. Practice Association III with learned phonograms.
4. Practice timed word reading for automaticity and accuracy.
5. Practice timed spelling and writing words for automaticity and accuracy.

Sentences and Stories. When students can read and write three-letter phonetic words, sentence and story reading is begun. This begins with reading simple, highly structured stories called "Little Stories." These stories are first practiced silently until the students think they can read them perfectly. Students may ask the teacher for assistance. The teacher pronounces nonphonetic words and cues the student to sound out phonetically regular words. Then the students read the sentence or story orally. The story is to be read perfectly with proper inflection. Later, the stories are dictated to the students. An example of a story follows:

Sam hit Ann.
Then Ann hit Sam.
Sam ran and Ann ran.
Ann had a tan mitten.
This is Ann's tan mitten.
Ann lost it.
Sam got the mitten.
Sam sent the mitten to Ann.

Evidence-Based Practice

Multisensory Structured Language Instruction

Comments: For the most part, multisensory structured language programs have been designed and used as remedial programs for students who have not learned to read successfully. They are often used with students identified as "dyslexic." Much of the original research that supports their use was clinical case studies summarized in a review by McIntyre and Pickering (1995) and more recently analyzed by Ritchey and Goeke (2006). The efficacy is restricted to case studies, and research examining their efficacy in a broader way is limited. First, they are best employed by teachers who have been trained in multisensory procedures.

The International Multisensory Structured Language Education Council (IMSLEC) **www.imslec.org** was developed to provide quality training courses for teachers interested in accreditation as a multisensory language specialist. Second, in general, these programs emphasize decoding skills and strategies and use text with such controlled vocabulary that it can be difficult to build comprehension skills. Hence, a number of the programs suggest simultaneously building listening comprehension until

students can read more conventional text. Despite the consistent recommendation that multisensory approaches are essential for individuals with dyslexia (Hahn, Fox, & Molholm, 2014), current evidence suggests that a range of program types that teach phonics explicitly are associated with improved reading outcomes for students with reading disabilities.

Word Study: Making Words, Word Building, and Word Walls Both reading and special educators have stressed the importance of word study as a way of learning the relationships between speech sounds and print, of building word recognition and spelling skills, and of developing vocabulary (Bear, Invernizzi, Templeton, & Johnston, 2012; Cunningham, 2008; Gunning, 2010a, 2010b, 2012; Kilpatrick, 2015). For students with learning and behavior problems, opportunities to construct words using magnetic letters, letter tiles, or laminated letters provide experience in manipulating sounds to find out how the words are affected. For example, the teacher might start with the sounds /s/, /t/, /r/, /n/, and /a/ and ask, "What two sounds make the word *at*?" The teacher would then ask the students to add a letter sound to the beginning to make the word *sat*. Then the students would be directed to remove the /s/. The teacher would then say, "What sound would you add to the beginning to make the word *rat*? Now listen. We're going to make a three-letter word. Take off the /t/ sound at the end of the word. Now add the sound that will make the word *ran*."

Evidence-Based Practice

Word Study

Procedures: Many activities can be developed around word sorts, building words, and word walls. A number of resource books are available, including the following:

- *Building Words: A Resource Manual for Teaching Word Analysis and Spelling Strategies* (2001), by T. Gunning, Boston, MA: Pearson/Allyn & Bacon.
- *Making Words* and *Making Big Words*, including *Making Words: Kindergarten; Making Words: 1st Grade;* and *Making Words: 2nd Grade*, by P. Cunningham and D. Hall (2009).
- *Phonics They Use: Words for Reading and Writing* (6th ed., 2013), by P. Cunningham, New York, NY: Pearson.
- *Unlocking Literacy: Effective Decoding and Spelling Instruction* (2003), by Marcia K. Henry, Baltimore, MD: Brookes.
- *Word Journeys: Assessment-Guided Phonics, Spelling, and Vocabulary Instruction* (2000), by K. Ganske, New York, NY: The Guilford Press.
- *Words Their Way with Struggling Readers (2011)* by Flanigan et al. Boston, MA: Allyn & Bacon.
- *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction* (5th ed., 2012), by D. R. Bear, M. R. Invernizzi, S. Templeton, & F. R. Johnston., Upper Saddle River, NJ: Pearson.

Making Words (Cunningham & Hall, 2009) is an approach to inferring phonics use that requires pattern recognition and understanding of rhyme. Using a specific set of letters (e.g., *a, c, h, r, s, t*), students make approximately 15 words beginning with two-letter words (e.g., *at*) and progressing to three-, four-, and five-letter words (e.g., *tar, cart, star, cash*) until the final "mystery word" is made (e.g., *scratch*). To use *Making Words*, each student needs a set of letters, and the teacher needs a large set of letters and a sentence strip chart to hold the cards and words that are constructed. Before the lesson, the teacher puts the letters the students will need during the lesson in plastic bags and gives a bag to each student. The three steps in the activity are as follows:

1. *Making words.* After the students have identified their letters, the teacher writes the numeral on the board for the number of letters the students are to put in their words. Next, the teacher cues the students to make different two-letter words. For example, with the word *scratch*, the teacher might ask the students to construct the word *at*. When working with a class of students, after each word has been constructed, the teacher selects one student who was correct to use the set of large letters and the chart to spell the word for the other students to check their work. Then the teacher might ask the students to add /c/ to the word *at* to make *cat*, or to make the word *art* and then rearrange the letters to make the word *tar*. The teacher continues to guide students through the lesson by directing them to make words with their letters. The last word includes all the letters a student has been given for the lesson.

2. *Word sorting.* The teacher puts up on the sentence strip chart all the words the students have constructed. The teacher then asks the students how some of the words are alike, and students sort the words by spelling patterns. For example, the teacher would take the word *car* and have the students find the other words that begin with c—*cars, cash, cart;* or the teacher would take the word *art* and have the students find the other art words—*cart, chart*. Other students hypothesize why the words are alike, which assists the students in seeing the spelling patterns.

3. *Making words quickly.* Students write as many words as they can using the day's letters, writing the words in a Making Words Log. Students first write the letters from the lesson, and when the teacher says, "Go," they write words for 2 minutes.

Comments: Both special education and general education teachers have found this practice an effective and efficient way to organize word-identification instruction. Students report that they enjoy the activity and manipulating the letters (Schumm & Vaughn, 1995). However, Schumm and Vaughn (1995) found it necessary to develop more structured lessons and to focus more on teaching word families with less able readers.

Evidence-Based Practice

Sound Partners

Sound Partners is an evidence-based approach to teaching beginning alphabetic principle, phonics rules, and word reading to students with reading difficulties (Vadasy, Wayne, O'Connor, **https://www.voyagersopris.com/literacy/sound-partners/overview**).

The focus of the intervention is primarily on students in kindergarten through third grade who have reading problems. While most of the studies supporting *Sound Partners* were conducted with students with reading problems through one-on-one tutoring, the lessons can also be provided in small groups.

Sound Partners is an explicit approach to tutoring students in a phonics-based approach to early reading, using lessons that are readily accessible to teachers, special education teachers, and paraprofessionals. Lessons focus on:

- Phonemic awareness, decoding, word identification, and spelling skills.
- Phonological skills (syllable segmenting) and initial sound identification, and scaffolded practice in phoneme segmenting.
- Application of word-reading skills through storybook reading practice.

Implicit Code Instruction

In comparison to explicit code instruction approaches, implicit code instruction in general does the following:

- Places more emphasis on using context clues, including picture clues, in decoding unknown words.
- Begins by teaching an initial set of sight words.
- Uses known words to discover word patterns and phonic generalizations.
- Teaches onset-rime and phonic and structural analysis within the context of meaningful stories and books.
- Puts less emphasis on systematically controlling the introduction of letter–sound relationships and spelling patterns.
- Uses text in which the language patterns are at the sentence level (e.g., "I see a dog," "I see a cat," "I see a bear"), rather than the word family or phoneme level (e.g., "The fat cat sat on a mat.")

This section presents two implicit code instruction approaches that have been used with students who experience difficulties in developing fluent word-recognition and effective word-identification strategies: modified language experience and the Fernald (VAKT) method.

Modified Language Experience Approach This approach to teaching early reading facilitates the transfer from oral language to written language by capitalizing on children's linguistic, cognitive, social, and cultural knowledge and abilities (Stauffer, 1970; Wanzek & Vaughn, 2009). These approaches use the students' own language, repeated reading, visual configuration, and context clues to identify words. Several methods for teaching language experience approaches have been developed: Allen's Language Experience Approach in Communication (R. V. Allen, 1976; R. V. Allen & Allen, 1966–68, 1982); Ashton-Warner's Organic Reading (Ashton-Warner, 1958, 1963, 1972); and Stauffer's Language-Experience Approach (Stauffer, 1970). The modified language experience approach that we describe is designed for students who have limited experience or success with reading and little or no sight vocabularies. The six objectives are as follows:

1. To teach the concept that text is talk written down
2. To teach the metalinguistic skills of sentence and word segmentation
3. To teach left-to-right progression
4. To teach use of semantic and syntactic clues
5. To teach recognition of words both within the context of the experience story and in isolation
6. To teach phonic and structural analysis by discovering patterns in known words

The approach is built on the idea that oral and written language are interdependent and that oral language can serve as the base for the development of written language.

Evidence-Based Practice

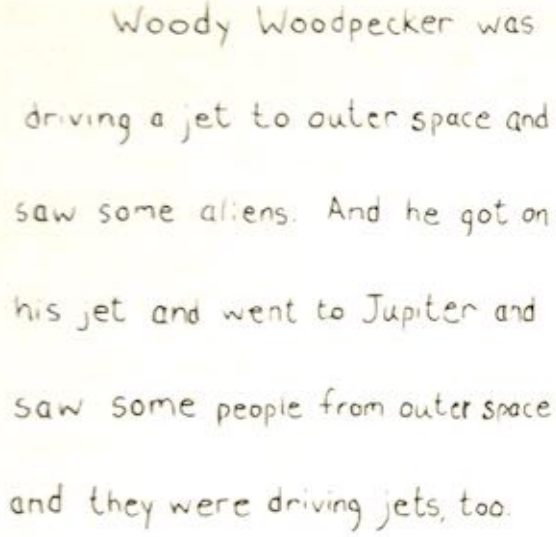
Modified Language Experience Approach

Procedures: The procedures for this modified language experience approach are similar to those suggested by Stauffer (1970). However, more structure and practice have been incorporated into this modification to provide for the needs of students who experience difficulties in learning to read (Landis, Umolu, & Mancha, 2010). It is designed to be used individually or with groups of two to five students. At the heart of this approach is the language experience story, a story the students write about events, persons, or things of their choice (see Figure 7.17).

First Day. For the first day of instruction, guidelines for developing a language experience story are:

1. *Provide or select an experience.* Provide or have the students select an experience that is of interest to them. Sometimes a picture can help to stimulate ideas, but be sure the students have experiences related to the picture. Remember, you are relying on

Figure 7.17 Dictated Language Experience Story



the students' memory of the experience and their memory for the language used to describe the experience.

2. *Explain the procedure to the students.* Explain that the students are going to be dictating a story about the selected experience. This story will then become their reading text or book.

3. *Discuss the experience.* Discuss the experience with students so that they can begin to think about what they want to put in the dictated story. Students with learning and behavior problems sometimes have difficulty organizing their thoughts. The discussion can serve as time for the students to plan what they want to say. To facilitate the planning process, you may want to write notes or construct a map or web.

4. *Write the dictated story.* Have the students tell the story while you write it. Students should watch as you write or type it. If you are working with several students, you may want to write the story on large chart paper. Have each student contribute to the story. If you are working with an individual, sit next to the student so that the student can see what you write. Encourage the students to use natural voices. The language experience story presented in Figure 7.17 was dictated by Sam, a third grader reading at the primer level.

5. *Read the story to the students.* Ask the students to listen to the story to determine whether they want to make any changes. Make changes accordingly.

6. *Have students read the story.* First have the students read the story together with you (choral reading) until they seem comfortable with the story. When you are choral reading, point to the words so that the students focus on the text as they read. Next have the students read individually and pronounce words that they cannot identify. In some cases, a student may give you a lengthy story, yet the student's memory for text is limited. When this occurs, you may work on the story in parts, beginning with only the first several sentences or first paragraph.

7. *Encourage the students to read the story to others.* This is often a very intrinsically reinforcing activity.

Second Day. For the second day of instruction, guidelines for reading the story are as follows:

1. *Practice reading the story.* Have the students practice reading the story using choral reading, individual reading, and reading to one another. When the students are reading individually and they come to a word they do not recognize, encourage them to look at the word and think of what word would make sense. Having the students read to the end of the sentence can also help them to think of a word that makes sense. If students cannot recall the word, pronounce it.

2. *Focus on individual words and sentences.* Have the students match, locate, and read individual sentences and words in the story. Discuss what markers are used to denote sentences and words. Finally, have the students read the story to themselves and underline the words they think they know.

3. *Check on known words.* Have each student read the story orally. On your copy of the story, record the words the student knows.

4. *Prepare word cards with words from the story.* Type the words each student knows from the story on word cards.

Third Day. Guidelines for the third day are as follows:

1. *Practice reading the story.* Repeat the type of activities described in step 1 of the second day.

2. *Focus on individual sentences and words.* Repeat the type of activities described in step 2 of the second day.

3. *Check on known words.* With the word cards in the *same order* as the words in the text, have each student read the word cards, and record the words the student knows.

4. *Practice reading the story.* Repeat the type of activities described in step 1 of the second day.

5. *Focus on sentences and words.* Repeat the type of activities described in step 2 of the second day.

6. *Check on known words.* With the cards in *random order*, have each student read the words, and record the words each student knows.

Fourth Day. Guidelines for the fourth day are as follows:

1. *Check on known words.* Repeat step 3 from the third day, using only the words the student knows from the previous day.

2. *Enter known words in the student's word bank.* Each student should make word cards (3 × 5 index cards or scraps of posterboard work well) for the words that the student can identify in step 1. These words should be filed by the student in the student's own word bank (index card box). Words that the student cannot identify should not be included.

3. *Read, illustrate, and publish the story.* Have the students read the story and decide whether they want to illustrate it and/or put it into a language experience book. Books can be developed for individual students, or one book can be made for the group. Students can then share these books with each other and with other interested people and place them in the library.

Once the students have completed at least one story and have developed 15 to 20 words in their word banks, they can begin to use the banks for a variety of activities, such as generating new sentences, locating words with similar parts (i.e., inflectional endings, beginning sounds, shapes), and categorizing words by use (e.g., action words, naming words, describing words).

As the number of sight words continues to increase, students can write their own stories, using the words from the word bank to assist them. More suggestions for developing activities based on the word bank are given in Apply the Concept 7.5.

Comments: The modified language experience approach provides a method for teaching children initial skills in reading, including the recognition of sight words. The approach uses the students' memory, oral language, and background experiences (Robertson, 1999; Wanzek & Vaughn, 2009) and is particularly effective with students from other cultures (Landis, Umolo, & Mancha, 2010) because it allows students to represent their cultural knowledge and experiences into the story. The language experience approach is also useful in bridging languages for students who are ELLs and responding to cultural differences within a class (Landis et al., 2010). Once the initial sight vocabulary has been built to between 30 and 100 words, students should be encouraged to read other books and stories. Having students record their stories during initial reading and reading on the fourth day allows the teacher to monitor growth.

Activities are incorporated into the approach to encourage the development of the metalinguistic skills of sentence and word segmentation. However, this approach does not present a systematic method for teaching phonic and structural analysis. For students who have difficulty with these skills, a more structured method of teaching phonic and structural analysis may be needed after they have developed an initial sight vocabulary. This approach may not provide some students with enough drill and practice to develop a sight vocabulary. In those cases, it will be necessary to supplement this approach with activities presented in the section on techniques for building sight words. To learn more about the language experience approach, check out the videos with the title *Language Experience Approach* at **www.youtube**.

Fernald (VAKT) Method The Fernald method (Fernald, 1943, 1988) uses a multisensory or VAKT approach to teach students to read and write words. This method was used by Grace Fernald and her associates in the clinic school at the University of California at Los Angeles in the 1920s. It is designed for students who have severe difficulties learning and remembering words when reading, who have a limited sight vocabulary, and for whom other methods have not been successful. It is usually taught on an individual basis.

7.5 Apply the Concept

Suggested Activities for Word Bank Cards

1. Ask students to write sight words on index cards.
2. Organize sight words in alphabetical order within a box.
3. Provide students with an incomplete sentence and ask them to use sight words from their collection to complete. Example:

   He ran to the _____. The _____ and _____ ran into the park.

4. Ask students to use words in their word box to make word sorts. For example, ask students to organize all words that move, words that begin with "S," words that describe.

naming words	science words
action words	color words
descriptive words	animal words
words with more than one meaning	names of people
words with the same meaning	interesting words
Opposites	funny words
people words	exciting words

5. Locate words beginning the same, ending the same, or meaning the same.
6. Organize words into a story. Students might need to borrow words for this use and may wish to illustrate or make a permanent record of it.

Evidence-Based Practice

Fernald Method (VAKT)

Procedures: The Fernald method consists of four stages through which students progress as they learn to identify unknown words more effectively. The first stage, which is the most laborious, requires a multisensory approach and uses a language experience format. By the final stage, students are reading books and can identify unknown words from the context and their similarity to words or word parts already learned. At this stage, the students are no longer tracing or writing a word to learn it.

Stage 1. Guidelines for Stage 1 are as follows:

1. *Solicit the student's commitment to learn.* Tell the student that you are going to be showing a technique for learning to read unknown words that has been successful with many students who have not learned in other ways. Inform the student that this method will take concentration and effort, but it should be successful.

2. *Select a word to learn.* Have the student select a word (regardless of length) that he or she cannot read but would like to learn to read. Discuss the meaning of the word, and listen for the number of syllables.

3. *Write the word.* Sit beside the student, and have the student watch and listen while you:

   a. Say the word.
   b. Write the word, using a broad-tipped marker, on a piece of unlined paper approximately 4 × 11 inches, in blackboard-size script, or in print if the student does not write in cursive. Say the word as you write it.
   c. Say the word again as you smoothly move your finger underneath the word. See Figure 7.18 for a model.

4. *Model tracing the word.* Model how the student is to trace the word so that he or she might learn it. Do not explain the process, but simply say to the student, "Watch what I do and listen to what I say."

   a. Say the word.
   b. Trace the word using one or two fingers. The fingers should touch the paper in order to receive the tactile stimulation. As you trace the word, say the word. Fernald (1943) stresses that the student must say each part of the word while tracing it. This is necessary to establish the connection between the sound of the word and its form so that the student will eventually recognize the word from the visual stimulus alone. It is important that this vocalization of the word be natural; that is, it should be a repetition of the word as it actually sounds—not a stilted or distorted sounding out of letters or syllables in such a way that the word is lost in the process. The sound for each letter is never given separately or overemphasized. In a longer word, such as *important*, the student says *im* while tracing the first syllable, *por* while tracing the second syllable, and *tant* as while tracing the last syllable.
   c. Say the word again while moving the tracing finger(s) underneath the word in a sweeping motion.

Model this process several times, and then have the student practice the process. If the student does not complete the process correctly, stop the student when an error is made and cue, "Not quite. Watch me do it again." Continue this procedure until the student is completing the three-stage process correctly.

5. *Trace until learned.* Have the student continue tracing the word until the student thinks the word can be written from memory.

6. *Write from memory.* When the student feels ready, remove the model, and have the student write the word from memory, saying the word while writing it. Fernald (1943) stresses that the student should always write the word without looking at the copy. She comments:

> When the child copies the word, looking back and forth from the word he is writing to the copy, he breaks the word up into small and meaningless units. The flow of the hand in writing the word is interrupted and the eye movements are back and forth from the word to the copy instead of those which the eye would make in adjusting to the word as it is being written. This writing of the word without the copy is important at all stages of learning to write and spell. The copying of words is a most serious block to learning to write them correctly and to recognize them after they have been written (p. 37).

7. *File the word.* After the word has been written three times correctly, the student should place it in the word bank.

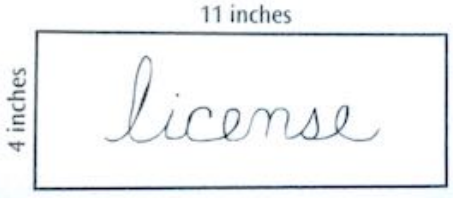
8. *Type the word.* Within an interval of 24 hours, the student should type and read each word learned by using this process. This helps to establish the link between the written and typed word.

The number of words learned per session using this VAKT process depends on the number of tracings a student needs to learn a new word. This number varies greatly among students. We have worked with students who need fewer than 5 tracings to learn a new word, whereas other students required over 50 tracings when first beginning this approach.

Fernald (1943) reports, "As soon as a child has discovered that he can learn to write words, we let him start 'story writing'" (p. 33). As the student writes a story and comes to a word he or she cannot spell, the tracing process is repeated. These stories should be typed within 24 hours so that the student can read the newly learned words in typed form within the context of the story.

Stage 2. When the student no longer needs to trace words to learn them, the student moves to Stage 2. In this stage, the teacher writes the requested word in cursive (or manuscript) for

Figure 7.18 Sample Word Using Fernald Technique



the student. The student then simply looks at the word, saying it while looking at it, and then writes it without looking at the copy, saying each part of the word while writing it from memory. As with Stage 1, words to be learned are obtained from words the student requests while writing stories. The word bank continues to function as a resource for the student, but a smaller word box can be used, because the teacher is writing the words in ordinary script size.

Stage 3. The student progresses to the third stage when the student is able to learn directly from the printed word without having it written. In this stage, the student looks at the unknown printed word, and the teacher pronounces it. The student then says the word while looking at it and then writes it from memory. Fernald reports that during this stage, students still read poorly but can recognize quite difficult words almost without exception after having written them.

During this stage, the student is encouraged to read as much as and whatever is wanted. Unknown words are pronounced, and when the passage is finished, the unknown words are learned by using the technique described in the preceding paragraph.

Stage 4. The student can recognize new words from their similarity to words or parts of words already learned. At first, a student may need to pronounce the word and write it on a scrap of paper to assist in remembering it, but later this becomes unnecessary. The student continues to read books of interest. When reading scientific or other difficult material, the student is encouraged to scan the paragraph and lightly underline each word the student does not know. These words are then discussed for recognition and meaning before reading.

Comments: Empirical evidence lends support to this approach for teaching word identification to students with severe reading disabilities (Berres & Eyer, 1970; Coterell, 1972; Fernald, 1943; Jeyasekaran, 2015; Kress & Johnson, 1970; Thorpe & Borden, 1985). Although this approach tends to be successful with such readers, the first several stages are very time consuming for both the teacher and the student, and this approach is appropriate only when other approaches have not been successful.

Techniques for Building Sight Words

Students who read fluently recognize individual words automatically or when they are reading text. Students with reading disabilities struggle with automatic word recognition, which is important not only for words that are decodable (e.g., *and, then, it*), but especially for high-frequency words that are less phonetically regular (e.g., *the, you, was, have*). See Figure 7.9 for a list of high-frequency words. This section presents several techniques that teachers can use to assist students in remembering words.

Sight Word Association Procedure The sight word association procedure (SWAP; J. M. Bradley, 1975) uses corrective feedback and drill and practice to assist students in associating spoken words with written form and can also be used in combination with reading game boards (Erbey et al., 2011). The procedure is appropriate to use with students who are beginning to learn to identify words across various contexts or texts, or with students who require more practice of new words than their current reading program provides. It is designed to be used individually or with small groups.

Evidence-Based Practice

Sight Word Association Procedure

Procedures: Begin by selecting words from the text that the students consistently miscall or do not identify at an automatic level. You can use about 80% of the words as new words the student needs to learn and 20% as words that the student is reviewing. Write each word on a word card. The procedure for teaching these words (usually three to seven words at a time) is as follows:

1. Discuss the words with students to ensure that they understand the meanings of the words as the words are being used in the text.
2. Present the words to the students one word at a time. Each word is exposed for 5 seconds, and the teacher says the word twice.
3. Shuffle the cards, and ask students to identify the word on each card. Provide corrective feedback by verifying the correctly identified words, giving the correct word for any word that is miscalled, and saying the word if students do not respond in 5 seconds.
4. Present all the words again, using the format given in step 2.
5. Have students identify each word, using the format given in step 3. Repeat this step at least two more times or until they can automatically recognize all the words.

How can you differentiate instruction for students who continue to have difficulty recognizing a word? Switch from a recall task to a recognition task. To do this, place several word cards on the table, and have the learners point to each word as you say it. If the students still continue to have difficulty learning the words, use a different technique to teach the words, such as picture association techniques, sentence/word association techniques, or a cloze procedure. A record sheet for keeping track of individual student responses is presented in Figure 7.19. Be sure to review words every several days to determine whether the words are being retained; reteach if necessary.

Comments: This procedure provides a technique for systematically practicing unknown words. It uses principles of corrective feedback and mass and distributed practice to teach words. However, several important cautions should be noted: (1) use in conjunction with an approach to reading that stresses reading text and using other decoding strategies, (2) ensure students know the meanings of the words being taught, and (3) give students ample opportunity to read these words in context.

Figure 7.19 Sight Word Association Procedure (SWAP) Record Sheet

✓*Correct*
0 Incorrect

Words	*Inital Teaching*					*Retention*			Comments
	1	*2*	*3*	*4*	*5*	*1*	*2*	*3*	

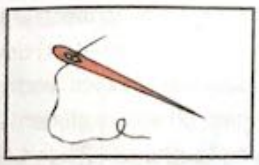
Picture Association Technique Using a key picture to aid in identifying a word can be beneficial (Mastropieri & Scruggs, 1998; Scruggs et al., 2010). This method allows the readers to associate the word with a visual image. It is on this premise that picture association techniques use key pictures to help students associate a spoken word with its written form.

Evidence-Based Practice

Picture Association Technique

Procedures: Select words that the students are having difficulty identifying when reading. At first, choose words that are easily imaged, such as nouns, verbs, and adjectives. Write each word on a card (usually three to seven words). On a separate card, draw a simple picture, or find a picture and attach it to the card. In some cases, the students may want to draw their own pictures. Use the following procedure to teach the picture–word association:

1. Place each picture in front of the students, labeling each one as you present it. Have the students practice repeating the names of the pictures.
2. Place next to each picture the word it represents, again saying the name of the word. Have students practice saying the names of the words.
3. Have students match the words to the pictures, and say the name of the word while matching it. Repeat this process until students easily match the pictures and words.
4. Place the words in front of the students, and have them identify the words as you say them. If they cannot identify the correct word, have them think of the picture to aid in their recognition. If they still cannot point to the word, show them the picture that goes with the word.



needle

5. Have students recall the words by showing the word cards one at a time. Again, if students cannot recall a word, have them think of the picture. If they still cannot think of the word, tell them to look at the picture that goes with the word.
6. Continue this procedure until the students can identify all the words at an automatic level. The same record sheet as the one used for SWAP (Figure 7.19) can be used for this procedure.
7. Have students review the words on subsequent days and, most important, give them plenty of opportunities to read the words in text. When a student is reading and cannot identify a word, encourage the student to think of the picture.

Comments: This picture association technique assists students in forming visual images that facilitate their identification of words. As with the SWAP, this procedure should be used only as a supplemental technique, and students should be given ample opportunities to read the words in text.

Evidence-Based Practice

Sentence–Word Association Technique

This technique encourages students to associate unknown words with a familiar spoken word, phrase, or sentence.

Procedures: Select three to seven words that students are consistently having difficulty recognizing. Discuss these words with the students, and ask them to find the words in the text and read them in a sentence. Tell the students to decide on a key word, phrase, or sentence that will help them to remember the word. For example, for the word *was*, a sentence might be, "Today he is, yesterday he _____." For the word *there*, the sentence might be, "Are you _____?" Put the words to be taught on word cards, and put the associated word, phrase, or sentence on separate cards. Teach the associations between the key word, phrase, or sentence and the unknown word, using the same procedures as were described for the picture association technique. After teaching, when a student is reading and comes to one of the new words and cannot remember it, have the student think of the associated clue. If the student cannot think of the associated clue orally, tell the student the clue.

Instructional Activities

This section provides instructional activities that are related to phonological awareness, phonics, and word identification. Some of the activities teach new skills; others are best suited for practice and reinforcement of already acquired skills. For each activity, the objective, materials, and teaching procedures are described.

Web Resources

To see additional lessons including instructional videos demonstrating lesson instruction, check out the following websites:

- The Texas Center for Learning Disabilities (**www.texasldcenter.org**) This website has teacher lesson plans for teaching beginning reading to students by grade level. Lesson templates and videos are also available.
- The Florida Center for Reading Research (**www.fcrr.org**) This website has an abundance of sample lessons and games that can be readily implemented.
- The Meadows Center for Preventing Educational Risk (**www.meadowscenter.org/**) Check out the videos and sample lessons on this website. Also, go to the library and look at the many resources for teachers on teaching beginning reading and other video resources.

My Sound Book

Objective: To provide students with practice in finding pictures that start with a specific consonant or vowel sound.

Grades: Primary

Materials: (1) A three-ring binder or folder into which "sound pages" can be inserted. (2) Magazines, old books, or workbooks that can be cut up. (3) Stickers, scissors, and glue.

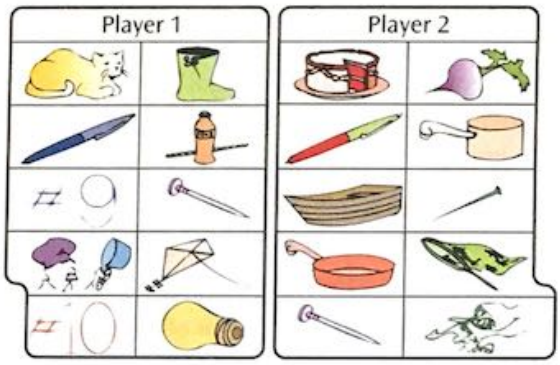
Teaching Procedures: Explain to the students that they will be each making a book in which they can collect and keep pictures and stickers that start with various sounds. Select one sound that the students are learning, and have them write the letter representing the sound on the top of the page. Then have them look through magazines, old books, and workbooks to find pictures starting with the sound. Once they have selected the pictures, have them say the names to you so that you both can determine whether the pictures represent the designated sound. Then have students glue the pictures on the sound pages, leaving room to add other pictures they find while looking for pictures representing other sounds. Have students put the sound page in the notebook and share their pictures with other students. Continue until the book is complete. As students collect stickers, you may want to encourage them to put them in the sound book.

Vowel Match

Objective: To provide students with practice in decoding words that have various vowel sounds.

Grades: Primary and intermediate

Materials: (1) One file folder that is divided into two playing areas that consist of 10 boxes for each player. In each box, paste a picture that illustrates a vowel sound. (2) Thirty to 40 playing cards with pictures illustrating vowel sounds.



Teaching Procedures: Explain the game to the students. Shuffle the cards, and place them face down near the players. Each student draws a card and checks to see whether the vowel sound illustrated on the card matches one of the pictures on his or her side of the game folder. If it does, the player places the card over the picture on the game folder. If the picture does not match, the card is discarded. The first player to cover all the boxes wins the game.

Adaptations: This game is easily adapted to teaching rhyming words and other sounds such as consonant digraphs or blends.

Sight Word Bingo

Objective: To provide students with practice in recognizing words.

Grades: Primary and intermediate

Materials: (1) Posterboard cut into 10 × 8-inch pieces to use for bingo cards. (2) A list of new words students have encountered in their reading. Such lists can be found in the back of basal readers or in books of lists such as *The New Reading Teacher's Book of Lists* (Fry, Fountoukidis, & Polk, 1985). To make the bingo cards, randomly select words from the list, and write them on the card as illustrated. (3) Colored markers.

Word Bingo			
happen	should	night	enough
below	never	complete	thought
grow	where	while	building
every	through	include	were
country	even	important	between

Teaching Procedures: One student (or the teacher) is designated as the caller. Each of the remaining students gets a bingo card. The caller randomly selects a word from the list and says the word. The students place a colored marker on the square in which the word is written. The first person to cover all the squares in a horizontal, vertical, or diagonal row calls "Bingo." The caller and the student then verify the words. If they are verified, that student wins.

Adaptations: Bingo is a generic game that can be adapted to provide practice for a variety of skills. Following are some examples:

- *Consonant bingo:* Put pictures of objects that start with initial consonants, blends, or digraphs on the bingo cards. The caller says the letters, and the students mark the pictures that have the same consonant, blend, or digraph. This can also be adapted for final consonants.
- *Prefix bingo:* Write prefixes on the bingo cards. The caller says a word with a prefix or gives the definition of a prefix, and the students mark the prefix on their cards.
- *Math fact bingo:* Write the answers to math facts on the bingo cards. The caller says a math fact, and the students mark the answer.

Compound Concentration

Objective: To give students practice in identifying compound words and to illustrate how words may be combined to form compound words.

Grades: Intermediate and secondary

Materials: Thirty-six 3 × 5-inch index cards on which the two parts of 18 compound words have been written. Make sure that each part can only be joined with one other part.

Teaching Procedure: Have a student shuffle the cards, and place the cards face down in six rows with six cards each. Each player takes a turn at turning over two cards. The student then decides whether the two words make a compound word. If the words do not make a compound word, then the cards are again turned face down, and the next player takes a turn. If the words make a compound word, then the player gets those two cards and turns over two more cards. The student continues playing until two cards are turned over that do not make a compound word. The game is over when all the cards are matched. The winner is the player with the most cards.

Adaptations: Concentration can be adapted for many skills. Students can match synonyms, antonyms, prefixes, suffixes, initial or final consonants, categories, and math facts.

Go Fish for Rimes

Objective: To give the students practice in identifying and reading words with rimes.

Grades: Intermediate and secondary

Materials: Twenty to 30 index cards (3 × 5 inch) on which words with a particular rime pattern (e.g., -ake, -ail, -ime, -ight) are written. Make sure that each word is written on two cards so that students can match them.

Teaching Procedures: Have students shuffle the cards and deal five cards to each player. The rest of the cards are placed face down in a pile on the table. Each player reads her own cards. Any player who has two cards that contain the same word reads the word and places the pair of cards face up in front of herself (provide assistance as necessary). After everyone has laid out the pairs, the first student asks one other student whether he has a specific word (e.g., "Do you have *rake*?"). The student who was asked looks at his cards. If that student has the card, he reads the card and hands it to the first student. That student puts the pair face up in front of herself and takes another turn. If the student who is being asked for a card does not have the card, he says, "Go fish"; the first student takes a card from the pile, and the next student takes a turn. When a student has laid down all of his or her cards, the game is over. The person with the most pairs wins.

Adaptations: Go Fish can be adapted for many skills. Students can match synonyms, antonyms, prefixes, suffixes, or compound words.

MyLab Education Self-Check 7.1
MyLab Education Self-Check 7.2
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MyLab Education Application Exercise 7.1: Decoding Strategies

MyLab Education Application Exercise 7.2: Linguistic Approach

MyLab Education Application Exercise 7.3: Explicit and Implicit Code Instruction

Summary

- Reading instruction involves teaching the basic skills necessary to read words accurately and rapidly. Reading instruction also incorporates strategies to assist readers in understanding what they read by expanding vocabulary and using comprehension strategies. Skills are built in a general progression, and instruction should be organized into the essential components, the focus of which is based on individual student needs.
- Phonological awareness is knowing and demonstrating that spoken language can be broken down into smaller units (words, syllables, phonemes). Activities in phonological awareness are conducted orally. For example, a teacher says the word *that*, and students clap the number of sounds they hear (three claps). Letter–sound correspondence is knowing how letter names and sounds relate to each other. Phonics is the idea that words are composed of letters that represent sounds, that those sounds are related to each other (letter–sound correspondence), and that they can be used to pronounce or spell words. Activities involving phonics relate sounds to print and may involve direct teaching of letter sounds, phonemes, and activities to practice the letter–sound relationships. For example, a teacher gives students the phoneme /at/, and students add letters to make additional words (e.g., *cat, that, mat, splat*).
- Seven main decoding strategies contribute to successful word identification. These include:
  1. Phonic analysis involves identifying and blending letter–sound correspondences into words.
  2. Onset-rime consists of using common spelling patterns to decode words by blending either individual sounds/patterns or using an analogy method to think of a word with similar sounds/patterns. Knowledge of common rimes assists readers in recognizing a large number of words that contain the core patterns.
  3. Synthetic and analytic phonics.
  4. Structural analysis involves analyzing words to assist with decoding and determining the meanings of words. Structural analysis is particularly effective for decoding longer, multisyllabic words.
  5. Knowledge of syllabication assists readers in recognizing similar chunks of print across words.
  6. Automatic word recognition is knowing a word without having to decode it. Because certain words are repeated so often (e.g., *the*), reading is made easier when one can automatically recognize high-frequency words that are less phonetically regular.

7. A knowledge of syntax (word order) and semantics (word meaning) can assist readers in cross-checking pronunciation and monitoring comprehension.

   Explicit code approaches teach phonological awareness; letter–sound correspondences; the alphabetic principle; and the use of phonic analysis, structural analysis, and syllabication to decode unknown words. Reading materials associated with this technique generally use decodable texts that highlight specific phonic or structural patterns. Implicit code instruction emphasizes the use of context clues, including picture cues, to decode unknown words. Texts are chosen that will be meaningful to readers and not for particular letter–sound relationships or spelling patterns. Implicit code instruction is often used with emergent readers who have had difficulties developing sight vocabulary and word analysis skills.