Chapter 7
Assessing and Teaching Reading: Phonological Awareness, Phonics, and Word Recognition

The pages of this Sample Chapter may have slight variations in final published form.
Assessing and Teaching Reading: Phonological Awareness, Phonics, and Word Recognition
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 English and reading in a middle or high school, special education teachers spend a great deal of their time teaching reading. Why is this the case? First, reading is often considered to be the most important area of education (National Reading Panel, 2000; Snow, Burns, and Griffin, 1998). Skill at reading is a prerequisite for many of the learning activities in 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 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 percent (Lyon, 1998). Therefore, it is critical that students learn to read and accomplish this task early in their schooling.

Students have a variety of strengths and needs in the area of reading. Let’s look at two students and see what effective 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 recognize only about 30 words. When he comes to a word he does not recognize, 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 that is 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. It should also include the listening, supported reading, and discussion of a wide variety of literature and content area materials to support his development of vocabulary and comprehension. Strategies for teaching these components (fluency, vocabulary development, and reading
comprehension) are discussed in Chapters 8 and 10. Finally, it will be important for Kyle to pair reading and writing activities so that as he builds reading decoding skills, he can work simultaneously on spelling. Similarly, as he develops his understanding of different types of text and genres (e.g., narratives such as folktales, adventure stories, and mysteries; expositions such as descriptions, comparisons/contrasts, persuasions), he can build skills at writing (see Chapter 9).

Manuel, the other student, 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 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 and the other students in his group are working on building their vocabulary, comprehension, and advanced decoding skills. Currently, they are learning to decode multisyllabic words (e.g., construction, renovation, reconsider) in which they learn to identify and separate the prefixes, suffixes, and endings. Then if they don’t recognize the root word, they use the information they know 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. 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 two to three 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 (Chapter 10), and comprehension (Chapter 8).

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. In Chapter 8, we discuss instructional strategies for assisting students to become fluent readers and active comprehenders. In Chapter 10, we discuss teaching concepts and vocabulary within the context of content area reading.

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, write about what they are reading, and write stories and essays using structures and conventions similar to the ones they are reading. As you read the next 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. Also think about how the strategies and instructional techniques that were discussed in Chapter 6 on oral language are related to reading and writing and could be incorporated into your teaching.
FOCUS

Question 1. What are the two overarching concepts that should guide reading instruction, and how do teachers decide where to focus instruction?

Reading and 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, email message, or Internet site. To accomplish this goal, it is important to think about 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. Remember how in Chapter 2, you had no difficulty reading THE CAT (p. 57) even though the H and A were exactly the same? You used selective attention, feature analysis, your knowledge of the letter–sound relationships, and context to help you automatically recognize the words. This 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 decoding 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 words into sounds or phonemes is a key phonological or metalinguistic skill for decoding and one for which students with learning/reading disabilities have particular difficulty (e.g., Lyon, 1998; Torgesen, 2000). When decoding is fluent, effort can be focused on comprehension.

Thus, a goal of reading and 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 (Allington, 1994; Cunningham and Elster, 1994; Sulzby and Teale, 1991)

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 (Anderson and Pearson, 1984). When readers read, the author does not simply convey ideas to the readers 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. Effective readers regularly monitor their comprehension to determine whether they understand what they are reading. When they are not sure, they may decide to employ 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* (see Chapter 2).

Students who have reading difficulties tend to have difficulty with metacognitive skills, including efficient memory processing for words (Ashbaker and Swanson, 1996; Bauer, 1987; Mann 1991) and comprehension monitoring (Billingsley and Wildman, 1990; Bos and Filip, 1984; Palincsar and Brown, 1987; Wong, 1979, 1987). Research in the area of memory processing indicates that these students do not effectively use elaborative encoding strategies, such as rehearsal, categorization, and association, when trying to remember words or word lists. 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 there is a comprehension breakdown.

These two overarching concepts can assist in organizing reading instruction into components or areas as depicted in Figure 7.1. These components and their integration are important in learning how to read effectively and in using reading as a vehicle for learning and entertainment. Because it is important to emphasize certain components or aspects of reading based on the student’s level of development and needs, particularly for students with learning/reading disabilities, instruction should integrate these components. 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.

**FOCUS Question 2.** What are the definitions of phonological awareness, letter–sound correspondence, and phonics, and what are some examples of activities that can be used to teach them?

**Phonological Awareness, Letter–Sound Correspondence, and Phonics**

What is phonological awareness? Simply stated, phonological awareness is knowing and demonstrating that spoken language can be broken down into smaller units (words, syllables, phonemes), which can be manipulated within an alphabetic system or orthography (Podhajski, 1999). 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 Figure 7.2.

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 (i.e., *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 say each syllable or sound (e.g., *running* is /run/ /ing/ is /r/ /u/ /n/ /i/ /ng/).

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 word in a sentence, syllables in a word (e.g., *cowboy*, *carrot*), sounds in a word (e.g., *me*, *jump*), rhyming words (e.g., *all*, *call*, *fall*, *ball*), and creating tongue twisters (e.g., Sally’s silly shoe sank slowly in the slime).

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 say each syllable or sound (e.g., *running* is /run/ /ing/ is /r/ /u/ /n/ /i/ /ng/).

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 awareness and processing play in learning to read (Adams, 1990; Blachman, 2000; McCardle and Chahabra, 2004; National Reading Panel, 2000; Snow et al., 1998). 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, 1997; Bradley and Bryant, 1983; Foorman, Fletcher, Francis, and Schatschneider, 1998; Juel, 1994; Torgesen and Burgess, 1998; Vellutino et al., 1996). Hence, Ms. Hernandez is working with students in kindergarten and first grade to help prevent or lessen later reading disabilities.

### Development of Phonological Awareness and Phonics

In general, children’s awareness of the phonological structure of the English language develops through a variety of activities that focus on discrimination, counting, rhyming, alliteration, blending, and segmenting. Ms. Hernandez also engages her students in manipulating sounds by deleting, adding, substituting, and transposing. Here are some examples:

- **Discrimination**: Students listen to determine whether two words begin or end with the same sound.
- **Counting**: Students clap the number word in a sentence, syllables in a word (e.g., *cowboy*, *carrot*), 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/ is /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*).
  - **Transposing**: Students reverse the sounds (e.g., *nat* becomes *tan*).

Phonological Awareness, Letter–Sound Correspondence, and Phonics

245
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. Table 7.1 presents a continuum for the development of phonological awareness with definitions. While 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 (Goswami and Bryant, 1990; Stanovich, 1992; Torgesen, Wagner, and Rashotte, 1994). 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, the focus should be on 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. Learning to manipulate these sounds through blending and segmenting is the most important goal of phonemic awareness and is associated with improved reading performance (Cavanaugh, Kim, Wanzek, and Vaughn, 2004). Remember, linking sounds to print is the most immediate goal.

In general, using a developmental sequence is helpful for planning instruction. For example, on the basis of the developmental sequence, the teacher would teach 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. For example, although some children can learn to blend, segment, and manipulate sounds, they continue to have difficulty with rhyming. 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

The majority of students at risk for reading difficulties, and who are later identified as having a learning or reading disability, have poor phonological awareness and can profit from explicit instruction in phonological awareness, particularly blending, segmenting, and manipulating sounds (Foorman et al., 1998; Muter and Snowling, 1998; Torgesen, 1999) and mapping these sounds to letters as quickly 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 (Goswami, 1998; Greaney, Tunmer, and Chapman, 1997).

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)

---

**TABLE 7.1**

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

**Early Developing**

*Source: Adapted from First Grade Teacher Reading Academy (Austin: University of Texas, Texas Center for Reading and Language Arts, 2000).*
• Clapping the number of words in a sentence, syllables in words, and phonemes in words
• Blending and segmenting words by syllables and sounds
• Segmenting and manipulating sounds and syllables

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). 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 7.3). 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 (Lindamood and Lindamood, 1998).

In teaching phonological awareness to students who are having difficulty 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. One activity might be to build on her ability to segment and blend onset-rimes and demonstrate 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.

Students may also need assistance in learning how to blend sounds. Figure 7.4 presents a simple procedure for teaching sound blending. The same procedure can be used for teaching how

![FIGURE 7.4](image-url)

**FIGURE 7.4**

Procedure for Teaching Sound Blending

To train a child in sound blending, use the following procedure.

- **Teacher:** Say shoe.
- **Child:** Shoe.
- **Teacher:** Now, what am I saying? /sh-sh-sh/oo-oo-oo/. [Say it with prolonged sounds, but no break between the sounds.] If the child responds correctly, say: Good. Now what am I saying? [Give a little break between the sounds.] /Sh/oe/. [Then say it with the child.] Shoe. Now what am I saying? [Give a quarter-second break between the sounds.] /Sh/oe/.
- **Child:** Shoe.
- **Teacher:** Shoe. Good What am I saying now? [with a half-second break between the sounds] /Sh/oe/.
- **Child:** Shoe.
- **Teacher:** Now what am I saying? [Give a one-second break between the sounds.] /Sh/oe/.

At each step, if the child does not respond with “shoe,” repeat the previous step and then again stretch out the sounds, confirming or prompting at each step. Proceed by increasing the duration until the child can say “shoe” in response to the sounds with approximately one second between them.

Repeat this experience with the word me.

The main task for the teacher is to give a word with two sounds, increasing the duration of time between them until the child gets the idea of putting the sounds together. Then the child is presented with three-sound words such as /fla/ft/, and then with four-sound words such as /s/ada/nd/. It is important to recognize that the number of sounds in a word may not correspond to the number of letters in a word. For example, the word shoe has four letters, but only two sounds. The teacher must be careful to present the sounds correctly and use the correct timing.

**FIGURE 7.3**

*Using the Elkonin Procedure to Support Phonemic Awareness*

<table>
<thead>
<tr>
<th>Word is sit</th>
<th>Phonemic Awareness Using Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>s i t</td>
<td>3</td>
</tr>
</tbody>
</table>

**Alphabetic Principle Using Letters**

| s i t       | 3 |

to segment words, except that the teacher would begin with the sounds separated and then gradually present them closer together until they are blended into a word.

General guidelines for teaching phonological awareness activities include 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, onsets, 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., continuants 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 7.5 for a selected list), and a number of sources provide lists of children’s books focused on different aspects of phonological awareness (Coldwell, 1997; Opitz, 1998; Perfect, 2000; Yopp, 1992). Tech Tips 7.1 highlights information about using computer software to teach phonological awareness skills.

**Response to Intervention and Progress Monitoring: Phonological Awareness and Phonics**

Successfully preventing reading disabilities and appropriately serving students with reading disabilities requires 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 valuable information for determining students’ responses to instruction.

- Have students received scientifically 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?
- Is progress monitoring data available to show the scope of the student’s progress?

**FIGURE 7.5**

Selected Programs and Resources for Teaching Phonological Awareness

<table>
<thead>
<tr>
<th>Program/Resource</th>
<th>Publisher/Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Basic Guide to Understanding, Assessing, and Teaching Phonological Awareness</td>
<td>Torgesen, J. K., Mathes, P. G., 2000, Austin, TX: PRO-ED.</td>
</tr>
<tr>
<td>Phonological Awareness and Primary Phonics</td>
<td>Gunning, T. G., 2000, Boston: Allyn &amp; Bacon.</td>
</tr>
<tr>
<td>Phonological Awareness Training for Reading</td>
<td>Torgesen, J. K., and Bryant, B. R., 1994, Austin, TX: PRO-ED.</td>
</tr>
</tbody>
</table>
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 scientifically 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 two weeks. If a student’s progress is significantly below other students in the class and/or their slope for their 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 any academic area is an essential first step in designing an effective intervention program, for several reasons. First, when a teacher assesses students, the teacher can determine what the students know and what they need to know. This information
allows the teacher to 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. Second, by using appropriate assessments, the teacher can determine how the student’s performance compares with those of other students of that same age or in that grade. This gives the teacher some idea of what students need to know to achieve grade-level performance. These assessments are referred to as norm-based assessments.

Third, appropriate assessments allow the teacher to monitor the progress of students and determine whether their progress is on track and appropriate 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. In all of the academic chapters, we will discuss the assessments and progress monitoring that teachers require to determine the progress of their students.

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. An effective progress monitoring system informs teachers about what to teach, including which phonemes students know or need to know. 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. There 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, graphophonic knowledge, phonemic awareness, phonics, comprehension, structural analysis, and vocabulary. The test takes approximately 10 minutes and can be used with students in grades K through 3. The program is available through Renaissance Learning (www.renlearn.com).

- **AIMSweb Systems.** These systems offer progress monitoring tools for letter naming fluency, letter–sound fluency, phoneme segmentation fluency, and nonsense word fluency. There are 23–33 alternative forms available for each grade and ongoing technical support is provided. The program is available from Edformation, Inc. (www.aimsweb.com).

- **Yopp-Singer Test of Phoneme Segmentation.** Students are asked to segment each phoneme separately in a list of 22 presented words. Students receive credit if they say all of the sounds in the word correctly. For example, if students are asked to identify the phonemes in fit, they would receive no credit for getting the first phoneme correct if they missed the following two phonemes. Students also receive feedback after each response. For responses that are correct, students are told that they were right. For responses that are incorrect, students are told the correct response by the test administrator. Like most phonemic awareness measures, this one is administered individually to children (Yopp, 1995).

- **Phoneme Segmentation Fluency.** There are 20 forms of this measure 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 phoneme (word part) correct even if the entire word is not correct. Also, students are not provided corrective feedback for errors (Kaminski and Good, 1996).

- **Comprehensive Test of Phonological Processing (CTOPP).** The CTOPP 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.

When selecting good screening measures for their students, teachers should consider the following important characteristics:

- Does it allow them to accurately predict which students will have later difficulties in reading?
• Does it allow them to differentiate current high, average, and low performers?
• Does it tell them which phonemic awareness skills they need to teach?
• Does it have multiple forms, or is it designed so that you can administer it more than one time per year?

If the teacher can answer yes to all of the above, the measure will serve 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 (Chard and Dickson, 1999; Simmons, Kame’enui, Stoolmiller, Coyne, and Harn, 2003; Torgesen, 1999), 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 7.3, while the task in the first row involves asking the students to segment words into sounds by moving a counter 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.

<table>
<thead>
<tr>
<th>Voiced</th>
<th>Voiceless</th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/ bat</td>
<td>/p/ pat</td>
</tr>
<tr>
<td>/d/ dig</td>
<td>/t/ tack</td>
</tr>
<tr>
<td>/g/ gate</td>
<td>/k/ kite</td>
</tr>
<tr>
<td>/v/ vase</td>
<td>/f/ fit</td>
</tr>
<tr>
<td>/th/ this</td>
<td>/th/ think</td>
</tr>
<tr>
<td>/z/ zip</td>
<td>/s/ sat</td>
</tr>
<tr>
<td>/zh/ buzz</td>
<td>/sh/ ship</td>
</tr>
<tr>
<td>/j/ jump</td>
<td>/ch/ chip</td>
</tr>
</tbody>
</table>

For students who consistently confuse voiced or voiceless sounds, it is helpful to teach whether the sounds are voiced or unvoiced. They can distinguish the difference by placing their fingers on their throat to feel the vibrations in their larynxes or by covering both their ears and listening as they say the sound pairs. Having students check whether they can feel the sound can help them to decode or spell a word (Clark and Uhry, 1995).

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 air flow (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* (Slavin, Madden, Karweit, Dolan, and Wasik, 1992), 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 (Read, 1975). 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.

- Students may have problems hearing the difference between /wh/ and /w/ because many Americans pronounce them in the same manner—for example, witch and which (Moats, 2000).
- 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).

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

---

**TABLE 7.2**

Consonant Sounds, Typical Spellings, and Manner of Articulation

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

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/—similar formation of the mouth; /p/ and /b/—same formation of mouth but voiceless and voiced) rather than to visual processing.

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 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.

TABLE 7.3
Common Consonant Digraphs and Clusters

<table>
<thead>
<tr>
<th>Common Consonant Digraphs</th>
<th>Common Initial Consonant Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correspondence</td>
<td>Examples</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>ch = /ch/</td>
<td>chair, church</td>
</tr>
<tr>
<td>gh = /g/</td>
<td>rough, tough</td>
</tr>
<tr>
<td>kn = /n/</td>
<td>knot, knob</td>
</tr>
<tr>
<td>ng = /ŋ/</td>
<td>thing, sing</td>
</tr>
<tr>
<td>ph = /f/</td>
<td>phone, photograph</td>
</tr>
<tr>
<td>sc = /s/</td>
<td>scissors, scientist</td>
</tr>
<tr>
<td>sh = /ʃ/</td>
<td>shoe, shop</td>
</tr>
<tr>
<td>th = /θ/</td>
<td>there, them</td>
</tr>
<tr>
<td>th = /ð/</td>
<td>thumb, thunder</td>
</tr>
<tr>
<td>wh = /w/</td>
<td>wheel, where</td>
</tr>
<tr>
<td>wr = /ɹ/</td>
<td>wrench, wrestle</td>
</tr>
</tbody>
</table>

Common Final Consonant Clusters

<table>
<thead>
<tr>
<th>With n</th>
<th>Example Words</th>
<th>With l</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>nce</td>
<td>prince, chance</td>
<td>ld</td>
<td>field, old</td>
</tr>
<tr>
<td>nch</td>
<td>lunch, bunch</td>
<td>lj</td>
<td>wolf, self</td>
</tr>
<tr>
<td>nd</td>
<td>hand, wind</td>
<td>lk</td>
<td>milk, silk</td>
</tr>
<tr>
<td>nk</td>
<td>tank, wink</td>
<td>lm</td>
<td>film</td>
</tr>
<tr>
<td>nt</td>
<td>tent, sent</td>
<td>lp</td>
<td>help</td>
</tr>
<tr>
<td>Other</td>
<td>Example Words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ct</td>
<td>fact, effect</td>
<td>lt</td>
<td>salt, belt</td>
</tr>
<tr>
<td>mp</td>
<td>jump, camp</td>
<td>lve</td>
<td>twelve, solve</td>
</tr>
<tr>
<td>sp</td>
<td>wasp, grasp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>st</td>
<td>nest, best</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from T. G. Gunning, Creating Literacy Instruction for All Students, 6th ed. (Boston: Allyn & Bacon, 2008).
The second category of sounds is vowels. In general, there must be a vowel in every English syllable, and consonants are formed around the vowel. Vowel sounds can be ordered on the basis of the open or closed position of the mouth, as shown in the vowel circle in Figure 7.6. Say each of the vowels in the vowel circle, and note how your mouth moves from a closed, smiling position (e) to an open position (oo).

As with the consonants, we can analyze students’ oral reading and spelling to learn about their knowledge of vowels 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, since 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. Sometimes the same spelling pattern has different sounds (e.g., the “ea” in beat and bread or the “ou” in soup, could, and shout). For students with severe difficulties in decoding, it may be helpful to systematically teach the frequency of the sounds for a vowel combination so that when decoding an unknown word, they can try the various sounds in a systematic manner and use syntax and semantics (i.e., context of the text) to determine the word. Vowel combinations with order of frequency for the different sounds (Herzog, 1998) are as follows:

### Order of Frequency Combination for Different Sounds

| Vowel | /e| as in eat, /e| as in bread, /a| as in great |
|-------|---|---------------|----------------|
| ea    | /e| as in ceiling, /a| as in vein |
| ei    | /e| as in key, /a| as in grey |
| ey    | /e| as in piece, /i| as in pie |
| oe    | /oo| as in moon, /oo| as in book |
| ou    | /oo| as in house, /oo| as in soup |
| ow    | /oo| as in owl, /o| as in snow |

Schwa is the vowel sound that is often found in unaccented syllables (e.g., suppose, familiar, sofa, mission) and is the most frequently occurring vowel sound (Wilde, 1997). As you can see, schwa has many different spellings.

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. Table 6.8 on page 221 provides a comparison of the phonological as well as the morphological and syntactical features of Spanish and English. Common phonological confusions include the following:

- /b/ pronounced as /p/
- /v/ pronounced as /b/
- /ch/ pronounced as /sh/
- /j/ pronounced as /h/
- /l/ pronounced as /y/

A number of differences in vowel pronunciations 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. Therefore, it is important to teach these correspondences and how to blend and segment sounds to struggling readers 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 decode words to struggling readers (e.g., Word Detectives: Benchmark Word Identification Program for Beginning Readers [Gaskins, Cress, O’Hara, and Donnelly, 1998]; Corrective Reading [Engelmann, Meyer, Carmine, Becker, Eisele, and Johnson, 1999]; Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech [Lindamood and Lindamood, 1998]; Phonic Remedial Reading Lessons [Kirk, Kirk, and Minskoff, 1985]; Alphabet Phonics [Cox, 1992]; Kindergarten Peer Assisted Learning, or KPALS [Mathes, Torgeson, and Howard, 2001]). These

### TABLE 7.4 Vowel Spellings

<table>
<thead>
<tr>
<th>Vowel Sound</th>
<th>Major Spellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/</td>
<td>rag, happen</td>
</tr>
<tr>
<td>/æ/</td>
<td>name, favor, say, sail</td>
</tr>
<tr>
<td>/e/</td>
<td>he, even, eat, seed, born, key, these, either, funny, serious</td>
</tr>
<tr>
<td>/i/</td>
<td>hide, tiny, high, lie, sky</td>
</tr>
<tr>
<td>/o/</td>
<td>vote, open, coat, bowl, old, though</td>
</tr>
<tr>
<td>/u/</td>
<td>use, human, few</td>
</tr>
<tr>
<td>/aw/</td>
<td>daughter, law, walk, off, bought</td>
</tr>
<tr>
<td>/oi/</td>
<td>noise, toy</td>
</tr>
<tr>
<td>/oo/</td>
<td>wood, should, push</td>
</tr>
<tr>
<td>/ow/</td>
<td>soon, new, prove, group, two, fruit, truth</td>
</tr>
<tr>
<td>/a/</td>
<td>above, operation, similar, opinion, suppose</td>
</tr>
<tr>
<td>/air/</td>
<td>far, large, heart</td>
</tr>
<tr>
<td>/ear/</td>
<td>hair, care, where, stair, bear</td>
</tr>
<tr>
<td>/air/</td>
<td>dear, steer, here</td>
</tr>
<tr>
<td>/er/</td>
<td>her, sir, fur, earth</td>
</tr>
<tr>
<td>/or/</td>
<td>horse, door, tour, more</td>
</tr>
</tbody>
</table>

Source: Adapted from T. G. Gunning, Creating Literacy Instruction for All Students, 6th ed. (Boston: Allyn & Bacon, 2008).
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/, /l/, /e/, /g/, /h/, /n/, /p/, /s/, and /t/). (See Figure 7.7 for a list of 120 words that can be made using these 11 letter–sound correspondences.)
- 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., apple /a/, 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.
- Color-coding consonant and vowel so that the two categories of sounds are highlighted

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 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 (National Reading Panel, 2000). Hence, it is critical to apply knowledge in phonological awareness, letter–sound relationships, and the alphabetic principle to word identification and decoding as discussed in the sections that follow.

**Family Participation in Beginning Reading**

Parents/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. Teachers can use many sources of
information to inform families. Consider sending for copies of these materials so that you can share them with families. It may be fun to demonstrate some of the activities that family members can do at home and encourage them to engage children in fun and meaningful activities that are associated with improved outcomes in reading. The following are some inexpensive or free materials available to families:

- A Child Becomes a Reader: Birth to Preschool (2002). This 31-page guide is written for parents/guardians and provides excellent ideas to build early language and sound awareness skills in young children. The first section of the guide is designed for parents who have infants and toddlers (birth through age two) and provides activities related to language and literacy development. The second section is designed for parents who have preschoolers between ages three and four. This section provides excellent information on what children should be able to do by age four, what parents can do at home to help, and what to look for in day care centers and preschools. The end of the book provides definitions of relevant terms. To order copies of this booklet, contact the National Institute for Literacy at EdPubs, P.O. Box 1398, Jessup, MD 20794-1398. Call 800-228-8813, or email edpuborders@edpubs.org.

- A Child Becomes a Reader: Kindergarten to Grade 3 (2002). This 63-page guide is written for parents/guardians and provides valuable and exciting ideas and activities that parents can use at home to enhance reading outcomes for their children in kindergarten through third grade. The first section of the book provides an overview of the building blocks of reading and writing. Each subsequent section provides for each grade level (kindergarten, first, second, and third) a description of what children should be able to do by the end of the grade level, what parents can do at home to help, and what to look for in each grade level. At the end of the book a list of terms and their definitions is provided.

To order copies of this booklet, contact the National Institute for Literacy at EdPubs, P.O. Box 1398, Jessup, MD 20794-1398. Call 800-228-8813, or email edpuborders@edpubs.org.

Many Websites also contain valuable information for parents on how to teach young children to read. Some useful sites include the following:

- The Partnership for Reading (www.nifl.gov/partnershipforreading)

- National Institute for Literacy (NIFL) (www.nifl.gov)
- No Child Left Behind Especially for Parents (www.nochildleftbehind.gov/parents)

**FOCUS Question 3.** What are the definitions of the six main decoding strategies, and how does each contribute to successful word identification?

**Word Identification, Decoding, and Word Study**

Being able to quickly and easily recognize words is the key to successful reading (Ehri, 1998; Gough, 1996; Shaywitz, 2003). Successful readers identify words fluently and, if a word is unknown, have effective decoding strategies to decipher the word. Therefore, it is important that students 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 (Ehri, 2004; National Reading Panel, 2000; Snow et al., 1998).

**What Is a Sight Word?**

A *sight word* is a word for which students can recognize the pronunciation and meaning automatically. 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; Ehri, 1998). In addition, students are able to more efficiently store words in memory when they group or consolidate words by multi-letter units such as onset-rimes, syllables, suffixes, prefixes, and base words. For example, if readers know -tion, in-, and -ing as multi-letter 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 (Juel, 1983).

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 one second of seeing them (Ehri and Wilce, 1983). To experience how powerful automatic word recognition is, look at Figure 7.8. 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 it is not automatically recognized.

**Decoding Strategies for Identifying Words**

What decoding or word identification strategies do readers employ 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 Figure 7.9).

**Phonic Analysis**

*Identify and Blend Letter–Sound Correspondences into Words.* This is referred to as phonic analysis or phonics. This strategy builds on the alphabetic principle and assumes that the 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 use 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 the students sweep their fingers under the word when they say it fast.
- Place letters apart when saying the sounds, and then push the letters together when you say it fast.

**FIGURE 7.8**

*Picture-Naming Task Demonstrating How Words Are Processed Automatically*

• Begin with simple familiar VC (in) and CVC (him) words and then move to more complex sound patterns (e.g., CCVC (slim), CVCC (duck), CVCe (make)).

Appendix 7.1 provides a scope and sequence for teaching phonics.

**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 7.10 presents a list of 37 common rimes that make almost 500 words (Wylie and Durrell, 1970) and a more complete list of rimes is presented in Appendix 7.2. 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).

Teaching word analysis by having students learn individual letter–sound correspondences or rime patterns and then blending the sounds together 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 together 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 sound- ing it out or blending the sounds into a word. When teaching onset-rime, teachers would 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 3,000 to
26,000 words. Most of these words are encountered through reading, and only a limited number are taught directly (Wysocki and Jenkins, 1987). Teach students to analyze words for compound words, root words, prefixes, suffixes, and inflectional endings for the following reasons:

- It provides students with ways to segment longer, multisyllabic words into decodable (and meaningful) parts (Henry, 1997).
- 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 meaningful 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 7.1 to learn more about what prefixes and suffixes to teach. Table 6.1 on page 199 provides a list of common prefixes, suffixes, and inflectional endings and their meanings.

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 together to say the word. Discuss the meaning of each part.
- Ask students to sort or generate words by meaning parts. Following is an example:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>In</th>
<th>Re-</th>
<th>Super-</th>
</tr>
</thead>
<tbody>
<tr>
<td>precaution</td>
<td>incomplete</td>
<td>replace</td>
<td>supermarket</td>
</tr>
<tr>
<td>prevent</td>
<td>incompatible</td>
<td>return</td>
<td>superintendent</td>
</tr>
<tr>
<td>precede</td>
<td>insignificant</td>
<td>redo</td>
<td>superman</td>
</tr>
</tbody>
</table>

- 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. Following is an example:

<table>
<thead>
<tr>
<th>People Who Do</th>
<th>Things That Do</th>
<th>More</th>
<th>Words That Have -er</th>
</tr>
</thead>
<tbody>
<tr>
<td>reporter</td>
<td>computer</td>
<td>fatter</td>
<td>cover</td>
</tr>
<tr>
<td>geographer</td>
<td>heater</td>
<td>greater</td>
<td>master</td>
</tr>
<tr>
<td>runner</td>
<td>dishwasher</td>
<td>shorter</td>
<td>never</td>
</tr>
</tbody>
</table>

If students are sorting, leave space so that they can add more words.

- 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 together to read the word.
- Make a class or student dictionary that has each word part, its meaning, and several example words.

### Apply the Concept 7.1

**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 percent 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 percent of words with prefixes (White, Sowell, and Yanagihara, 1989). The inflectional endings of -s/-es, -ed, and -ing account for about 65 percent 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 percent. 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.
• Develop word webs or maps that demonstrate how one root word can make a cadre of related words (see Figure 7.11).

**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 similar chunks of print across words.

In teaching about syllable types, it is important that students learn 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, 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.

**TABLE 7.5**

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


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.

**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 7.12 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 school children and make up about 60 percent of the words found in these texts (Zeno, Ivens, Millard, and Duvvuri, 1995).

For example, the most frequently occurring word, the, makes up about 2 percent of words.

Two factors should be considered in deciding what words to teach as high-frequency words: utility and ease of learning (Gunning, 2006). 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 percent of the 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, 2000; Gunning, 2006):

- Teach the most frequently occurring words.
- Check to make sure that students understand word meaning, particularly if they have limited

**FIGURE 7.12**

High-Frequency Words

| 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 | |

language, a specific language disability, or are English language learners.

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

“Does that sound right here?”

“Does that make sense?”

Students should first be taught to decode unknown words using phonics, structural analysis, and syllabication. Then teach them to cross-check pronunciation by asking whether words “make sense.”

In looking at these seven word-decoding strategies, it is clear that instruction for students who are having difficulty learning to read should include systematic instruction in letter–sound correspondences, phonic and structural analysis, and syllabication because they are the powerful strategies for reading text in alphabetic writing systems. In addition, reading instruction should provide numerous and varied opportunities to read and write so that students can employ semantic and syntactic clues and so that the recognition of words becomes automatic. This frees most of the reader’s attention to focus on comprehension.

**FOCUS Question 4. How can the use of explicit and implicit code instruction be compared?**

Teaching Phonics, Word Recognition, and Word Study

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 percent of the words. He reads slowly and cannot remember previously known words. He knows fewer than 30 sight words, and he applies inconsistent strategies to decode 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 together. Hence, this strategy rarely results in his pronouncing the words correctly. Even though Jamal struggles in decoding the individual words, he can generally get the gist when reading 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. 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 limited 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 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 in both Spanish and English continues to be somewhat limited as measured on language assessments. Although she communicates with her friends, she is shy about responding in class and appears to have limited background experiences to assist her 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 strategies, but also to determine what approaches have been used previously, how consistently, for how long, and with what success. It is also helpful to use the intervention research to inform the teacher’s decision making.

Beginning reading approaches that emphasize explicit, direct teaching of phonological awareness and word identification strategies that rely on using phonics, onset-rime, and structural analysis result in greater gains in word recognition and comprehension than approaches in which phonological awareness and phonics are more implicitly taught (National Reading Panel, 2000; Swanson, 1999b). Consequently, explicit code instruction approaches should be a part of a balanced reading approach for most students with special needs.

The rest of the chapter focuses on teaching approaches and techniques that build word recognition and word identification strategies. The first section presents several explicit code instruction approaches and the next section focuses on implicit code instruction approaches or approaches in which teaching phonic and structural analysis is not emphasized or less direct. The third section presents several techniques that provide students with repeated opportunities to practice identifying words until automatically recognized. It is important to remember that this is just one aspect of a reading program, although it is a very important one for students with reading problems. A reading program should also incorporate multiple opportunities to teach listening and reading comprehension and to read for learning and enjoyment. In addition, it should provide opportunities for students to write about what they are reading.

Explicit Code Instruction

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. 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 that are 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 7.2 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 was introduced by the linguists Bloomfield and Barnhart (1961) and Fries (1963). It gained popularity in the late 1960s and early 1970s. Recent research has highlighted the effectiveness of teaching onset-rime (Ehri, 1998; Goswami, 1998), particularly for students who experience difficulties learning to read (see the discussion of onset-rime on page 259 in the section entitled “Decoding Strategies for Identifying Words”).

Beck (2006) describes word building sequences in which word types are organized 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. Words like sat, lit, sand.
- The B category addresses instruction in CVCe words. Words like 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., pull, day).
- The D category focuses on r-controlled vowels such as car, turn, and fern.
Text Types and How They Facilitate Learning to Read

For students with learning and behavior problems who are learning to read, as well as other students, it is important to match the type of text with the goals and purposes of reading instruction. When the text type matches the level and purpose for instruction, it can provide a scaffold that supports students as they learn to read as well as provide them with opportunities to practice what they are learning (Brown, 1999/2000; Mesmer, 1999). 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**

**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

**Decodable Text**

- Text that introduces sound–symbol relationships, onset-rimes, and sight words in a controlled sequence so that difficulty level increases across levels
- 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.

---

**Support for Beginning Reading**

**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

---

**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

(continued)
## Apply the Concept 7.2

### Text Types and How They Facilitate Learning to Read (continued)

#### Transitional Text
- Integrates predictable and decodable text so that across levels predictability decreases and 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 McGroven, pp. 10–14).

#### 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).

#### Authentic Literature and Nonfiction
- Text that is written with limited regard for word or sentence difficulty and provides more complex plots and information
- Varies widely in style and genre
- Examples:
  - *Peter Rabbit* by Beatrix Potter
  - *Owl Moon* by Jane Yolen
  - *Bearmant: Exploring the World of Black Bears* by Laurence Pringle

### 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

### Emphasizes student use of:
- Using simple syllabication, prefixes/suffixes, and chunking with polysyllabic words (e.g., unprepared) and using more 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

### 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 model fluency when reading aloud
- Motivating students and creating interest in reading
- Discussing literature and teaching listening/reading/comprehension strategies
CLASSROOM Applications

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. Figure 7.10 (page 259) presents a list of 37 common rimes and an even more complete list is found in Appendix 7.2. 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 or less phonetically regular words are kept to a minimum. Figure 7.13 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 7.14 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 together to make the word flat). Another strategy is to use an analogy method in which the students think of another word, or the key 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 7.15), 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.

FIGURE 7.13
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 7.14
Selected Linguistic Reading Programs and Readers

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

FIGURE 7.15
Word Family House

- at
fat
bat
rat
sat
cat
Reading Mastery and Corrective Reading

Reading Mastery: Rainbow Edition (Engelmann, Bruner, Hanner, Osborn, Osborn, and Zoref, 1995) and Corrective Reading (Engelmann et al., 1999) are highly structured, systematic reading programs that use a direct instruction model for teaching (Carnine, Silbert, and Kame’enuei, 1997) 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.

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. Because of the highly controlled vocabulary, students are frequently able to experience success in comparison to learning to read whole words (Goswami, 1998; Levy and Lysynchuk, 1997; O’Shaughnessy and Swanson, 2000). It is unclear from research, however, whether decoding at the phoneme level (e.g., /c-a-t/) versus the onset-rime level (e.g., /c-at/) is more advantageous and for which students. Recent research suggests that students should develop facility with decoding at the phoneme level before instruction in onset-rime decoding begins. Students with reading problems who are instructed in both these decoding methods make the greatest gains in reading (Lovett, Lacerenza, Borden, Frijters, Steinbach, and De Palma, 2000). 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 7.13, 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.”

CLASSROOM Applications

Reading Mastery and Corrective Reading

PROCEDURES: Reading Mastery and Corrective Reading are built on principles of direct instruction (Carnine et al., 1997), 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.
- Prerequisite knowledge or skills are taught first (e.g., sounds of letters before words).
- Instances that are consistent with the strategy are introduced before exceptions (e.g., teach consistent CV/Ce words such as gave and made before exceptions such as have).
- High-utility knowledge is introduced before less useful knowledge (e.g., teach
frequent irregular words such as of and was before less frequent ones such as heir and neon.

• Easy skills are taught before more difficult ones.
• Information and strategies that are likely to be confused are introduced separately (e.g., letters b and d and words were and where).
• Systematic review and practice are provided.
• 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 7.16, 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 is presented in Figure 7.17. 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.

Whereas Corrective Reading uses standard print, the initial levels of Reading Mastery employ modified print that includes marking the long vowel sounds and reducing the size of silent letters (see Figure 7.18). 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 (Becker, 1977; Gersten, Carnine, and Woodward, 1987; Gregory, Hackney, and Gregory, 1982; Grossen, 1999; Kame’enui et al., 1998; Polloway, Epstein, Polloway, Patton, and Ball, 1986; Thorne, 1978; Vitale, Medland, Romance, and Weaver, 1993). 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 (Swanson, 1999b). 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.
FIGURE 7.17
Portion of an Early Lesson from Corrective Reading

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.
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.]
6. [Repeat steps 3–5 until firm.]
7. What’s the middle sound in the word rrriiiimmm? [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: sssee. Get ready. [Hold up a finger for each sound.] sssee. [Repeat until the students say the sounds without stopping.]
5. [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 a.] 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, a˘, 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.
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] a˘a˘a˘.
   [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.] sssaaat.
   [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.

sat

general technique for teaching beginning reading; rather, they are a technique to use with students who have not yet learned an efficient method of identifying unknown words (Kirk et al., 1985).

Once these skills have been learned, the first lesson is introduced (see Figure 7.19). For each lesson, students sound out each word in each line, one letter at a time, and then give the complete word. Each lesson is organized into four parts and is based on the principle of minimal change. In the first part, only the initial consonant changes in each sequence; in the second part, only the final consonant changes; in the third part, both the initial and final consonants change; in the fourth part, the space between letters in a word is normal.

In addition to these drill lessons, high-frequency sight words are introduced and highly controlled stories are interspersed throughout the program. Frequent review lessons are also provided.

COMMENTS: This program provides a systematic and intensive approach to teaching phonetic analysis skills to beginning readers. However, the approach

---

**FIGURE 7.19**

First Lesson from Phonic Remedial Reading Lessons

<table>
<thead>
<tr>
<th>a</th>
<th>a</th>
<th>a</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>m</td>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>a</td>
<td>m</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>a</td>
<td>g</td>
<td>a</td>
<td>a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>a</th>
<th>a</th>
<th>a</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>s</td>
<td>m</td>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>a</td>
<td>m</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>m</td>
<td>m</td>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>a</td>
<td>d</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>t</td>
<td>a</td>
<td>t</td>
<td>a</td>
</tr>
</tbody>
</table>

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 participating in 58 sessions (35 minutes each) of supplemental intervention in group sizes of one to three students (Linan-Thompson et al., 2003). Only three students made less than six months' growth during the three-month intervention.

In a study with 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 oralcy 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 oralcy 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).

In summary, good readers—whether they are monolingual English or English language learners—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. Learning to read in languages in which the print is less consistently connected to sounds places little emphasis on comprehension and reading for meaning and incorporates limited practice in connected text. The authors suggest using other books to give students the opportunity to practice their word identification and comprehension skills with other reading materials.

**Spotlight on Diversity**

**English Language Learners and Reading Difficulties**

To what extent are the practices identified for phonological awareness and phonics appropriate for students who are English language learners (ELLs)? If they are appropriate, how can teachers facilitate their acquisition of these skills in English? Teachers should ask these questions and continue to acquire relevant knowledge as the number of students with special needs who are ELLs increases. Educational decisions that are informed by the language backgrounds and needs of special education students who are ELLs are particularly necessary when their primary education needs are in language-demanding areas such as reading. For most students with learning disabilities—as many as 80 percent (Lyon et al., 2001)—their primary educational needs are related to their reading difficulties. Therefore, the need to better understand and identify appropriate interventions for ELLs with reading difficulties is high.

Unfortunately, we know substantially more about teaching students with reading difficulties who are monolingual English students than about teaching students who are ELLs. However, there is a growing knowledge base to inform our instruction in early reading with ELLs (Denton, Anthony, Parker, and Hasbrouck, 2004; Gunn, Biglan, Smokowski, and Ary, 2000; Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani, 2003; Stuart, 1999; Vaughn, Cirino et al., 2006). A summary of findings reveals:

- English language learners who were given direct instruction in early reading in English benefited in the number of words read correctly per minute (Gunn et al., 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 et al., 2004).
Teaching Phonics, Word Recognition, and Word Study

(like English) takes longer than learning to read in languages that have more consistent orthographies such as Spanish (Seymour, 2006).

Multisensory Structured Language Instruction

Multisensory structured language programs combine systematic explicit teaching of phonemic awareness, the alphabetic principle, phonics and structural analysis, syllabication, and decoding with activities that incorporate the visual, auditory, tactile (touch), and kinesthetic (movement) (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 (McIntyre and Pickering, 1995):

- Simultaneous, multisensory presentation of visual, auditory, and kinesthetic-tactile (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 are presented in Figure 7.20. The Gillingham-Stillman method (Gillingham and Stillman, 1973) is described in more detail. It is designed for third-through sixth-grade students of average or above average ability and normal sensory acuity who are having difficulty learning to read. With some adaptations, it can be modified to work with both older and younger students.

FIGURE 7.20
Selected Phonics Reading Programs


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


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


CLASSROOM Applications

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 two-year period at minimum. Initially, students who use this method should read only materials that are designed to conform with the method. Other written information, such as content area textbooks, should be read to the students.
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 employs 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 letter sound is learned 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 the 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 (i.e., 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 non-reversible 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 together 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. Student write, naming each letter while forming it /b-a-t/.
4. Students read bat.

This procedure is referred to as simultaneous oral spelling, or 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 wrong, 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 time spelling and writing words for automaticity and accuracy.

**Sentences and Stories.** When students can read and write three-lettered 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 is as 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.

**CLASSROOM Applications**

**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. Much of the original research that supports their use was clinical case studies and summarized in a review by McIntyre and Pickering (1995) and more recently analyzed by Ritchey and Goeke (2006). Studies of older students with reading disabilities, although limited, do indicate that these students make substantial gains when the principles and content of multisensory structure language are employed (Greene, 1996; Torgesen, Wagner, and Rashotte, 1997; Torgesen, Wagner, Rashotte, Alexander, and Conway, 1997). Several considerations are worth keeping in mind when deciding to use structured language programs. First, they are best employed by teachers who have been trained in multisensory procedures. A list of institutions and organizations that offer training can be obtained from the International Dyslexia Association (800-222-3123), Academic Language Therapy Association (972-907-3924), Academy of Orton-Gillingham Practitioners and Educators (914-373-8919), and International Multisensory Structured Language Education Council (972-774-1772). Second, in general, these programs emphasize decoding skills and strategies and use text with such controlled vocabulary and it can be difficult to build comprehension skills. Hence, a number of the programs suggest simultaneously building listening comprehension until students are able to read more conventional text. Finally, there is limited research to support that the addition of the tactile-kinesthetic component facilitates learning (Moats, 1999).

**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, and Johnston, 2000; Cunningham, 2000; Gunning, 2006; Henry, 1997). 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/, /l/, /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.”
The teacher continues to guide students through the lesson in plastic bags and gives a bag to each student with learning and behavior problems (Schumm and Vaughn, 1995). 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 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 two 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 (Cunningham, 1991; Schumm and Vaughn, 1995). However, Schumm and Vaughn (1995) found it necessary to develop simpler lessons and to focus more on teaching word families with less able readers.

**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). Language experience approaches are congruent with principles based on Vygotsky’s theory of cognitive development, and on learning frameworks such as whole language and process writing (Veatch, 1991). These approaches use the students’ own language, repeated reading, visual configuration, and context clues to identify words. Language experience approaches are often considered language arts approaches, since they integrate oral language, writing, and reading (Allen, 1976; Nelson and Linek, 1999). Several methods for teaching language experience approaches have been developed: Allen’s Language Experience Approach in Communication (Allen, 1976; Allen and 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.

FIGURE 7.21

Dictated Language Experience Story

Woody Woodpecker was driving a jet to outer space and saw some aliens. And he got on his jet and went to Jupiter and saw some people from outer space and they were driving jets, too.

CLASSROOM Applications

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. 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 7.21).

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 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 of the students contribute to the story. If you are working with an individual, sit next to the student so that he or she can see what you write. Encourage the students to use natural voices. The language experience story presented in Figure 7.21 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 his or her 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.

8. **Type the story.** If the story has not already been typed, type it and make one copy for each student. Also make a second copy for each student to keep and use for record keeping.

**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. **Type the words from the story on word cards.** 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 word bank.** Each student should make word cards (3 × 5 index cards or scraps of posterboard work well) for the words that he or she can identify in step 1. These words should be filed by the student in his or her 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
Teaching Phonics, Word Recognition, and Word Study

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 Figure 7.22.

**COMMENTS:** The modified language experience approach provides a method for teaching children initial skills in reading, including the recognition of sight words. The approach utilizes the students’ memory, oral language, and background experiences (Robertson, 1999), as well as visual configuration and context clues. Once the initial sight vocabulary has been built to between 30 and 100 words, students should be encouraged to read other books and stories. This approach also provides a way to monitor students’ reading development, including word recognition and fluency (Stokes, 1989). Having students record their stories during initial reading and reading on the fourth day allows the teacher to monitor growth.

This approach lends itself to the use of computer technology (Duling, 1999), particularly with the use of word processing, desktop publishing, and multimedia software that incorporates voice and graphics, such as Children’s Writing and Publishing Center (Learning Company), KidWriter II (Davidson and Associates), and Kid Pix (Broderbund), or language experience-based software programs such as Writing to Read (Martin and Friedburg, 1986). For example, Stratton, Grindler, and Postell (1992) integrated word processing and photography into a language experience for middle school students.

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. For a research review of language experience approaches to teaching beginning reading, see Stahl and Miller (1989).

**FIGURE 7.22**

<table>
<thead>
<tr>
<th>Suggested Activities for Word Bank Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alphabetize words in word banks.</td>
</tr>
<tr>
<td>2. Match the word with the same word as it occurs in newspapers, magazines, etc.</td>
</tr>
<tr>
<td>3. Make a poster of the words known.</td>
</tr>
<tr>
<td>4. Complete sentences using word banks. Provide students with a stem or incomplete sentences and have them fill in slot with as many different words as possible. Example: He ran to the ________. The ________ and ________ ran into the park.</td>
</tr>
<tr>
<td>5. Find or categorize words in word banks: naming words</td>
</tr>
<tr>
<td>action words</td>
</tr>
<tr>
<td>descriptive words</td>
</tr>
<tr>
<td>words with more than one meaning</td>
</tr>
<tr>
<td>words with the same meaning</td>
</tr>
<tr>
<td>opposites</td>
</tr>
<tr>
<td>people words</td>
</tr>
<tr>
<td>6. Locate words beginning the same, ending the same, or meaning the same.</td>
</tr>
<tr>
<td>7. Locate words with various endings.</td>
</tr>
<tr>
<td>8. Match sentences in stories with words from word bank.</td>
</tr>
<tr>
<td>9. Use word bank cards for matching-card games, such as grab and bingo.</td>
</tr>
<tr>
<td>10. 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.</td>
</tr>
<tr>
<td>11. Delete words from a story. Have students use words from their word banks to complete the story.</td>
</tr>
<tr>
<td>12. Scramble the sentences in the story or words in a sentence.</td>
</tr>
<tr>
<td>13. Establish class word banks for different classroom centers, such as science words, number words, weather words, house words, family words.</td>
</tr>
</tbody>
</table>

Fernald (VAKT) Method
The Fernald method (Fernald, 1943, 1988) uses a multisensory or visual-auditory-kinesthetic-tactile (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.

CLASSROOM Applications
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 utilizes a language experience format. By the final stage, students are reading books and are able to 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 One: Guidelines for Stage One are as follows:

1. Solicit the student’s commitment to learn. Tell the student that you are going to be showing him or her 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 on his or her part, 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 him or her watch and listen while you:
   a. Say the word.
   b. Using a broad-tipped marker on a piece of unlined paper approximately 4" × 11", write the word 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 7.23 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 as he or she traces 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 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 he or she traces 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 he or she makes an error 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 that he or she can write the word 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 as he or she writes. 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 (pp. 37–39).

It is also important that the student write the word as a unit. If the student makes an error in writing the word or hesitates unduly between letters, stop the student immediately, cross out the word, and have the student again practice tracing the large model. The word is never erased and rewritten. Fernald states, “The reason for this procedure is that the various movements of erasing, correcting single letters or syllables, and so forth, break the word up into a meaningless total which does not represent a word” (p. 39). It also can interfere with the student’s motor memory for the word. The student should write the word from memory correctly at least three consecutive times.

7. **File the word.** After the word has been written three times correctly, the student should place it in his or her 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 five 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.

Fernald suggests that no arbitrary limit be set for the length of the tracing period (Stage One). The student stops tracing when he or she is able to learn without it. This is usually a gradual process, with the student sometimes feeling the need to trace a word and sometimes thinking that the word does not need to be traced.

**Stage Two:** When the student no longer needs to trace words to learn them, he or she moves to Stage Two. In this stage, the teacher writes the requested word in cursive (or manuscript) for 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 as he or she writes it from memory. As with Stage One, 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, since the teacher is writing the words in ordinary script size.

**Stage Three:** The student progresses to the third stage when he or she 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 are able to 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 he or she wants. 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 Four:** The student is able to recognize new words from their similarity to words or parts of words he or she has 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 that interest him or her. When reading scientific or other difficult material, the student is encouraged to scan the paragraph and lightly underline each word he or she 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 and Eyer, 1970; Cotereall, 1972; Fernald, 1943; Kress and Johnson, 1970; Thorpe and 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. Consequently, it should be used only if 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 (see sections “What Is a Sight Word?” on page 257, and “Automatic Word Recognition” on page 262). 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 7.12 (p. 262) for a list of high-frequency words. This section presents several techniques that teachers can use to assist students in remembering words. In addition, a number of games and computer programs can be used to provide students with practice in recognizing words presented individually and in text. These techniques can be incorporated into a reading program for the purpose of building automatic word recognition and can be used with either explicit or implicit code instruction.

Sight Word Association Procedure

The sight word association procedure (SWAP; Bradley, 1975) uses corrective feedback and drill and practice to assist students in associating spoken words with written form. 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.

COMMENTS: This procedure provides a technique for systematically practicing unknown words. It utilizes principles of corrective feedback and mass and distributed practice to teach words. However, there are several important cautions regarding
sight word association. First, it needs to be used in conjunction with an approach to reading that stresses reading text and utilizing other decoding strategies. Second, students should understand the meanings of the words being taught. Third, in addition to the isolated word practice provided by this technique, students should be given ample opportunity to read these words in context.

**Picture Association Technique**

Using a key picture to aid in identifying a word can be beneficial (Mastropieri and Scruggs, 1998). 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.

**CLASSROOM Applications**

**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.

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 7.24) 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 sight word association procedure, this procedure should be used only as a supplemental technique, and students should be given ample opportunities to read the words in text.

Picture associations have been used in beginning reading programs such as the Peabody Rebus Reading Program (Woodcock, Clark, and Davies, 1969) and word processing programs such as Kid Writer Deluxe (Davidson). Students learn to read these symbols and then transfer their skills to traditional print by making picture–word associations.

**Sentence–Word Association Technique**

The sentence–word association technique encourages students to associate an unknown word with a familiar spoken word, phrase, or sentence to aid in remembering the word when reading.

**CLASSROOM Applications**

**Sentence–Word Association Technique**

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 him or her 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.

**Grocery Store**

**Objective:** To increase students’ awareness of print in the environment and to provide practice in matching words.

**Grades:** Primary

**Materials:** (1) An area that is set up as a grocery store. (2) Commonly used packaged and canned goods with labels left on (e.g., instant pudding, toothpaste, cornflakes, chicken noodle soup). Remove the contents of packaged goods and re-close the box. (3) Cards with names of items written on them. (4) Baskets and/or bags that students can use when shopping.

**Teaching Procedures:** This center can be used in a variety of ways. Word cards can be placed by each food item. When students are shopping and select a food item, they also pick up the card, read it, and match it to the label on the box. When students go through checkout, they can read each card and hand the cashier the item that goes with it, or the teacher and students can decide which items students want to buy. The teacher gives those word cards to the students, who shop for those items by matching the cards to the items on the shelves.

Students can serve as stockers by reshelfing the items the other students have purchased. When stockers reshelve an item, they can find the card that matches the item and then place the card next to the item.

**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 each of them will be making a book where 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 vowels 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 player to cover all the boxes first 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.

**教学程序**

一个学生（或老师）被指定为叫号员。每个剩余的学生都得到一张宾果卡。叫号员随机从列表中选择一个单词并大声说出。学生们在卡上标记出包含该单词的方格。第一个覆盖所有横行、竖行或对角线的方格的人叫“宾果”。叫号员和该学生会验证这些单词。如果它们被验证了，该学生就获胜。

**适应性**：宾果是一个可以被改编为适应各种技能的通用游戏。以下是一些示例：

- **母音宾果**：将与某一个母音开始的物体、连字符或组合发音的图片放在宾果卡上。叫号员说出这些字母，学生们标记出具有相同母音、连字符或组合音的图片。也可以适用于最终母音。
- **前缀宾果**：写出前缀的宾果卡。叫号员说出一个前缀单词或给出前缀的定义，学生们标记出它们的宾果卡。
- **数学事实宾果**：将数学事实的答案放在宾果卡上。叫号员说出一个数学事实，学生们标记出该答案。学生们会验证这些数学事实。如果它们被验证了，该学生就获胜。

**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 index cards (3" × 5") 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: Explain the game. 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”) on which words with a particular rime pattern (e.g., -ake, -ail, -ime, -ight, etc.) are written. Make sure that each word is written on two cards so that students can match them.

Teaching Procedures: Explain the game. Have a student 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 his or 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 himself or herself (provide assistance as necessary). After everyone has laid out their pairs, the first student asks one other student whether he or she has a specific word (e.g., “Do you have rake?”). The student who was asked looks at his or her cards. If that student has the card, he or she reads the card and hands it to the first student. That student puts the pair face up in front of him or her and takes another turn. If the student who is being asked for a card does not have the card, he or she says, “Go fish,” the first student takes a card from the pile, and the next student takes his or her 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.

SUMMARY for Chapter 7

Reading is one of the most important areas of education, and special education teachers who work with students with learning and behavior problems spend more time teaching reading than any other area. Reading is a skilled and strategic process in which learning to decode and read words accurately and rapidly is essential. It entails understanding a text and is dependent on active engagement and interpretation by the reader. Therefore, the goal of reading instruction is to provide students with the skills, strategies, and knowledge to read fluently and understand a text for purposes of enjoyment and learning.

Many students with learning or reading disabilities experience significant difficulties in developing phonemic awareness, letter–sound correspondence, and the understanding of how speech maps to print. Systematically teaching this knowledge and related skills will be crucial to these students’ success in learning to read. The skills of blending, segmenting, and manipulating phonemes are particularly important.

In developing strategies for decoding words, students can rely on phonic analysis, using onset-rimes or spelling patterns, structural analysis (e.g., affixes and inflectional endings), syllabication, syntax, and semantics. Ideas for teaching these various decoding strategies are presented in this chapter.

Although some words lend themselves to using decoding strategies such as phonic analysis, structural analysis, and syllabication, other words may be more effectively learned as whole units because they are less predictable phonetically. For these words, a number of strategies for teaching sight words are presented including the sight word association, picture association, and cloze.
FOCUS Question 1. What are the two overarching concepts that should guide reading instruction, and how do teachers decide where to focus instruction?

Answer: 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. There is a general progression of skills, and instruction should be organized into the essential components, the focus of which is based on individual student needs.

FOCUS Question 2. What are the definitions of phonological awareness, letter–sound correspondence, and phonics, and what are some examples of activities that can be used to teach them?

Answer: 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).

FOCUS Question 3. What are the definitions of the six main decoding strategies, and how does each contribute to successful word identification?

Answer:
1. Phonics analysis involves identifying and blending letter–sound correspondences into words. Practice in blending sounds into words increases ease of decoding and fluency. To avoid an overreliance on any one method of decoding, students should be taught to use a variety of strategies and the appropriate situations in which to apply them.
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. 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.
4. Knowledge of syllabication assists readers in recognizing similar chunks of print across words.
5. 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.
6. A knowledge of syntax (word order) and semantics (word meaning) can assist readers in cross-checking pronunciation and monitoring comprehension.

FOCUS Question 4. How can the use of explicit and implicit code instruction be compared?

Answer: Explicit code instruction is used to teach phonological awareness; letter–sound correspondence; phonics; and the use of phonetic analysis, structural analysis, and syllabication to decode unknown words. Reading materials associated with this technique generally use decodable texts that highlight specific phonetic 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.

THINK and APPLY

• What are the components of reading instruction?
• What are the characteristics of phonological awareness, and how can a teacher recognize students who are struggling with phonological awareness?
• Why are phonological awareness, phonics and letter–sound correspondences so vital to later reading success?
• Observe a kindergarten classroom for evidence of each of the phonological awareness skills in the continuum of development.
• Think about how phonological awareness and phonics are interrelated. How can these skills be utilized and expanded on to develop word reading and spelling skills?
• Develop several games for promoting letter–sound correspondences.
• What are some different ways in which you can teach phonological awareness to one student, a small group of students, and a whole class of students?
• What are the characteristics of a phonics-based method for reading instruction?
• What are the key features of direct and explicit instruction? Why are these features so vital for the instruction of students with learning or reading disabilities?

• Compare and contrast explicit and implicit code instruction. Describe what type of learner might profit from each.
• Review several early reading programs or basal readers, and describe how they sequence phonics instruction.
• Develop several games for building sight words.

1. How might the assessment procedures and activities described in this chapter be integrated into reading instruction in a general education classroom to develop basic skills in reading before referral and identification of learning disabilities in young children (LD4S1, LD4S2, LD7K3, LD9S2, CC8S2)?

   **Standard LD4S1:** Use research-supported methods for academic and nonacademic instruction of individuals with learning disabilities.

   **Standard LD4S2:** Use specialized methods for teaching basic skills.

   **Standard LD7K3:** Interventions and services for children who may be at risk for learning disabilities.

   **Standard LD9S2:** Use research findings and theories to guide practice.

2. To prepare for meeting the needs of students who range in reading ability, use your knowledge of the CEC standards (LD4S8) to plan a reading lesson that incorporates at least one reading skill (e.g., phonological awareness, decoding) and is differentiated to meet the unique needs of students with learning disabilities and emotional or behavioral disorders who struggle with reading. Include the grade level, skill, and the differentiated activity within that skill for students at various levels.

   **Standard CC8S2:** Administer nonbiased formal and informal assessments.

**WEBSITES as RESOURCES to Assist in Teaching Reading**

The following Websites are extensive resources to expand your understanding of teaching reading:

• National Reading Panel [www.nationalreadingpanel.org](http://www.nationalreadingpanel.org)
• International Dyslexia Association [www.interdys.org](http://www.interdys.org)
• International Reading Association [www.reading.org](http://www.reading.org)
• Vaughn Gross Center for Reading at the University of Texas [www.texasreading.org](http://www.texasreading.org)
• Florida Center for Reading at the Florida State University [www.fcrr.org](http://www.fcrr.org)
• LD Online [www.ldonline.org](http://www.ldonline.org)
• Reading Rockets [www.readingrockets.org](http://www.readingrockets.org)
**Video Homework Exercise**  Go to MyEducationLab and select the topic “READING INSTRUCTION,” then watch the video “Word Chunking” and complete the activity questions below.

In this video, a teacher works with a first grader on word recognition and chunking.

1. What strategy discussed in the chapter is the teacher using in this clip?
2. What skills is she developing with this student?

**Video Homework Exercise**  Go to MyEducationLab and select the topic “READING INSTRUCTION,” then watch the video “Phonics” and complete the activity questions below.

In this video a teacher teaches phonics to a small group of students.

1. Teaching phonics in isolation is not a recommended practice. What does the teacher in this video do to contextualize the phonics instruction she provides?
2. How does this instructional episode connect to the two overarching concepts that guide reading instruction discussed in the chapter?

---

**Appendix 7.1 Scope and Sequence for Teaching Phonics**

<table>
<thead>
<tr>
<th>Level</th>
<th>Categories</th>
<th>Correspondence</th>
<th>Model Word</th>
<th>Correspondence</th>
<th>Model Word</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preparatory</td>
<td>Letter names, phonemic awareness, rhyming, segmentation, perception of initial consonants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>High-frequency initial consonants</td>
<td>s = /s/</td>
<td>sea</td>
<td>r = /r/</td>
<td>rug</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f = /l/</td>
<td>fish</td>
<td>l = /l/</td>
<td>lamp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>m = /m/</td>
<td>men</td>
<td>g = /g/</td>
<td>game</td>
</tr>
<tr>
<td></td>
<td></td>
<td>t = /t/</td>
<td>toy</td>
<td>n = /n/</td>
<td>nine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d = /d/</td>
<td>dog</td>
<td>h = /h/</td>
<td>hit</td>
</tr>
<tr>
<td></td>
<td>Long vowels: word-ending</td>
<td>e = /e/</td>
<td>he, me</td>
<td>ee = /e/</td>
<td>bee, see</td>
</tr>
<tr>
<td></td>
<td>single-letter vowels and digraphs</td>
<td>o = /o/</td>
<td>no, so</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower-frequency initial consonants and x</td>
<td>c = /k/</td>
<td>can</td>
<td>c = /s/</td>
<td>city</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b = /b/</td>
<td>boy</td>
<td>g = /g/</td>
<td>gym</td>
</tr>
<tr>
<td></td>
<td></td>
<td>y = /y/</td>
<td>vase</td>
<td>y = /y/</td>
<td>yo-yo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j = /j/</td>
<td>jacket</td>
<td>z = /z/</td>
<td>zebra</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p = /p/</td>
<td>pot</td>
<td>x = /ks/</td>
<td>box</td>
</tr>
<tr>
<td></td>
<td></td>
<td>w = /w/</td>
<td>wagon</td>
<td>x = /gs/</td>
<td>example</td>
</tr>
<tr>
<td></td>
<td></td>
<td>k = /k/</td>
<td>kite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Categories</td>
<td>Correspondence</td>
<td>Model Word</td>
<td>Correspondence</td>
<td>Model Word</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
<td>----------------</td>
<td>------------</td>
<td>----------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>High-frequency initial consonant digraphs</td>
<td>ch = /ch/</td>
<td>church</td>
<td>th = /th/</td>
<td>thumb</td>
</tr>
<tr>
<td></td>
<td>sh = /sh/</td>
<td>ship</td>
<td>wh = /wh/</td>
<td>wheel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>th = /th/</td>
<td>this</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short vowels</td>
<td>a = /a/</td>
<td>hat</td>
<td>u = /u/</td>
<td>pup</td>
</tr>
<tr>
<td></td>
<td>i = /i/</td>
<td>fish</td>
<td>o = /o/</td>
<td>pot</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e = /e/</td>
<td>net</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Initial consonant clusters</td>
<td>st = /st/</td>
<td>stop</td>
<td>fr = /fr/</td>
<td>free</td>
</tr>
<tr>
<td></td>
<td>pl = /pl/</td>
<td>play</td>
<td>fl = /fl/</td>
<td>flood</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pr = /pr/</td>
<td>print</td>
<td>str = /str/</td>
<td>street</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gr = /gr/</td>
<td>green</td>
<td>cr = /kr/</td>
<td>cry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tr = /tr/</td>
<td>tree</td>
<td>sm = /sm/</td>
<td>small</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cl = /kl/</td>
<td>clean</td>
<td>sp = /sp/</td>
<td>speak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>br = /br/</td>
<td>bring</td>
<td>bl = /bl/</td>
<td>blur</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dr = /dr/</td>
<td>drive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final consonant clusters</td>
<td>ld = /ld/</td>
<td>cold</td>
<td>mp = /mp/</td>
<td>lamp</td>
</tr>
<tr>
<td></td>
<td>ll = /ll/</td>
<td>shelf</td>
<td>nd = /nd/</td>
<td>hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sk = /sk/</td>
<td>mask</td>
<td>nt = /nt/</td>
<td>ant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>st = /st/</td>
<td>best</td>
<td>nk = /nk/</td>
<td>think</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less frequent digraphs and other consonant elements</td>
<td>ck = /k/</td>
<td>lock</td>
<td>ng = /ng/</td>
<td>hang</td>
</tr>
<tr>
<td></td>
<td>dge = /j/</td>
<td>bridge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/e/</td>
<td>i-e = /a&amp;/</td>
<td>save</td>
<td>e-e = /e&amp;/</td>
<td>these</td>
</tr>
<tr>
<td></td>
<td>/o&amp;/</td>
<td>i-e = /e&amp;/</td>
<td>use</td>
<td>o-e =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/g/</td>
<td>hope</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Digraphs and trigraphs</td>
<td>ee = /e&amp;/</td>
<td>green</td>
<td>ow = /o&amp;/</td>
<td>show</td>
</tr>
<tr>
<td></td>
<td>oi/oy = /oi/</td>
<td>aim, play</td>
<td>igh = /i&amp;/</td>
<td>light</td>
<td>oo =</td>
</tr>
<tr>
<td></td>
<td>/e/</td>
<td>boat</td>
<td>ea = /e&amp;/</td>
<td>bread</td>
<td>ea =</td>
</tr>
<tr>
<td></td>
<td>/e&amp;/</td>
<td>bean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other vowels</td>
<td>ou/ow = /ow/</td>
<td>out, owl</td>
<td>oo = /oo&amp;/</td>
<td>book</td>
</tr>
<tr>
<td></td>
<td>/aw/</td>
<td>author, paw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>r vowels</td>
<td>ar = /ar/</td>
<td>car</td>
<td>are = /a&amp;/</td>
<td>care</td>
</tr>
<tr>
<td></td>
<td>er = /er/</td>
<td>her</td>
<td>air = /air/</td>
<td>hair</td>
<td>ir =</td>
</tr>
<tr>
<td></td>
<td>/ur/</td>
<td>sir</td>
<td>ear = /i&amp;/</td>
<td>fear</td>
<td>ur =</td>
</tr>
<tr>
<td></td>
<td>/e/</td>
<td>burn</td>
<td>eer = /i&amp;/</td>
<td>steer</td>
<td>or = /or/</td>
</tr>
<tr>
<td>3</td>
<td>Consonants mission</td>
<td>ti = /sh/</td>
<td>action</td>
<td>t, ti = /ch/</td>
<td>future question</td>
</tr>
<tr>
<td></td>
<td>/sh/</td>
<td>Ch = /k/</td>
<td>choir</td>
<td>kn = /n/</td>
<td>knee</td>
</tr>
<tr>
<td></td>
<td>Consonant digraphs</td>
<td>sh = /sh/</td>
<td>chef</td>
<td>wr = /wr/</td>
<td>wrap</td>
</tr>
<tr>
<td></td>
<td>ghost</td>
<td>ph = /ph/</td>
<td>photo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vowels</td>
<td>y = /e&amp;/</td>
<td>city</td>
<td>o = /o&amp;/</td>
<td>off</td>
</tr>
<tr>
<td></td>
<td>why</td>
<td>al = /al/</td>
<td>ball</td>
<td>y = /j/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gym</td>
<td>ew = /e&amp;/</td>
<td>few</td>
<td>a = /a/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>father</td>
<td>e = /e/</td>
<td>remain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Appendix 7.2
### Common Rime/Spelling Patterns

<table>
<thead>
<tr>
<th>Vowel Sound</th>
<th>Major Spellings</th>
<th>Model Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/ Short Vowels</td>
<td>rag, happen, have</td>
<td>cat</td>
</tr>
<tr>
<td>/e/ Short Vowels</td>
<td>get, letter, thread</td>
<td>bed</td>
</tr>
<tr>
<td>/i/ Short Vowels</td>
<td>wig, middle, event</td>
<td>fish</td>
</tr>
<tr>
<td>/o/ Short Vowels</td>
<td>fox, problem, father</td>
<td>mop</td>
</tr>
<tr>
<td>/u/ Short Vowels</td>
<td>bus</td>
<td>cup</td>
</tr>
<tr>
<td>/æ/ Long Vowels</td>
<td>name, favor, say, sail</td>
<td>rake</td>
</tr>
<tr>
<td>/e/ Long Vowels</td>
<td>he, even, cat, seed, been, key, these, either, funny, serious</td>
<td>wheel</td>
</tr>
<tr>
<td>/i/ Long Vowels</td>
<td>hide, tiny, high, lie, sky</td>
<td>nine</td>
</tr>
<tr>
<td>/ɔ/ Long Vowels</td>
<td>vote, open, coat, bowl, old, though</td>
<td>nose</td>
</tr>
<tr>
<td>/u/ Long Vowels</td>
<td>use, human</td>
<td>cube</td>
</tr>
<tr>
<td>/aw/ Other Vowels</td>
<td>daughter, law, walk, off, bought</td>
<td>saw</td>
</tr>
<tr>
<td>/oi/ Other Vowels</td>
<td>noise, toy</td>
<td>boy</td>
</tr>
<tr>
<td>/ʊə/ Other Vowels</td>
<td>wood, should, push</td>
<td>foot</td>
</tr>
<tr>
<td>/ʊəʊ/ Other Vowels</td>
<td>soon, new, prove, group, two, fruit, truth</td>
<td>school</td>
</tr>
<tr>
<td>/əʊ/ Other Vowels</td>
<td>tower, south</td>
<td>cow</td>
</tr>
<tr>
<td>/æ/ Other Vowels</td>
<td>above, operation, similar, opinion, suppose</td>
<td>banana</td>
</tr>
<tr>
<td>/ər/ Other Vowels</td>
<td>far, large, heart</td>
<td>car</td>
</tr>
<tr>
<td>/əɪr/ Other Vowels</td>
<td>hair, care, where, stair, bear</td>
<td>chair</td>
</tr>
<tr>
<td>/ɜːr/ Other Vowels</td>
<td>dear, steer, here</td>
<td>deer</td>
</tr>
<tr>
<td>/ɔr/ Other Vowels</td>
<td>her, sir, fur, earth</td>
<td>bird</td>
</tr>
<tr>
<td>/ɔɪr/ Other Vowels</td>
<td>fire, wire</td>
<td>tire</td>
</tr>
<tr>
<td>/ɔə/ Other Vowels</td>
<td>horse, door, tour, more</td>
<td>four</td>
</tr>
</tbody>
</table>