



# Professional Development Guide

# Phonics

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# Phonics

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The *SRA Imagine It!* approach to beginning reading instruction reflects the belief that a task so fundamentally important as helping students learn to read demands nothing less than our best efforts. It demands that all the knowledge the sciences of the human mind and of language and literacy development have revealed over the years about the processes, content, and methods of beginning reading be brought to task. The *SRA Imagine It!* approach recognizes what these sciences have made clear: If students are to become fluent, confident, and enthusiastic readers—readers who easily gain meaning, pleasure, and knowledge from a variety of print materials—they need extensive experiences with language and literature plus instruction in phonics and the skills necessary for accessing meaning in print.

Although it is far too optimistic to say that the decades-long “great debate” is over, it does appear that the call for balanced, research-based reading instruction, of the kind found in *SRA Imagine It!*, is being heard and heeded. Specifically, after years of contention, a broad consensus has emerged in the field of reading supporting the view that early reading instruction should include phonics. In a recent survey, Baumann, Hoffman, Moon, and Duffy-Hester (1998) found that more than ninety-nine percent of K–2 teachers surveyed consider phonics to be an essential (sixty-seven percent) or important (thirty-two percent) part of early instruction. Stahl, Duffy-Hester, and Stahl (1998) report that phonics is even finding its way into

the instruction methods of some whole-language proponents (Church, 1996; Routman, 1996).

A discussion of all the components of a balanced reading program is beyond the scope of this guide. As its title suggests, this guide focuses on phonics. It reviews what the research says about the content and methods of phonics instruction. It offers a clear definition of what is meant by *phonics*, as the term is used in *SRA Imagine It!*, and it provides rationale for why phonics is crucial to the reading success of young students.

## What Is Phonics, and Why Is It Important?

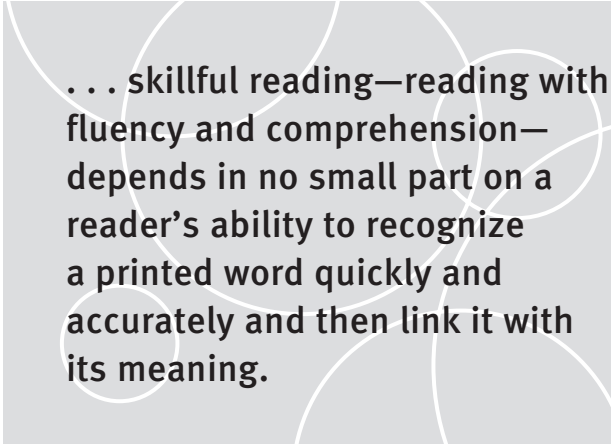
As Stahl and his colleagues (1998) point out, it is often difficult to talk about phonics because different people hold different beliefs about what phonics means. Simply put, *phonics* is the term applied to instructional practices that help students develop an understanding of the *alphabetic principle*—the principle that the symbols they see on a page (letters, graphemes, letter patterns) represent the sounds of the language. The *alphabetic principle*, in turn, is a broad term that enfolds awareness of the sound structure of the language (*phonological awareness*) and knowledge of the shapes and names of letters (*alphabetic knowledge*).

Understanding the alphabetic principle allows readers to translate words by mapping individual letters to their

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phonological counterparts. In other words, it helps students understand that printed symbols combine in an ordered fashion to form *words*, and that words convey the meaning of a text.

Why is phonics instruction important? Simply put, skillful reading—reading with fluency and comprehension—depends in no small part on a reader’s ability to recognize a printed word quickly and accurately and then link it with its meaning (Adams & Bruck, 1995; Stanovich, 1991).



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A wealth of research into what skillful readers do as they read has revealed a great deal about the role of rapid word recognition in reading for meaning. Eye-movement research, for example, shows that skillful readers visually process almost every letter of every word on a page, seldom skipping a word or guessing at what it is. In a fraction of a second—too rapid for readers to be aware of the process—they take in the individual letters that make a word and translate each of them to speech sounds, using the knowledge they gain to identify the word and determine its meaning (Just & Carpenter, 1987; McConkie, Kerr, Reddix, & Zola, 1988; McConkie & Zola, 1981). The result

is that every encounter with a word in print, even an unfamiliar word, increases readers’ knowledge of the word’s spelling, as well as its spelling-to-meaning relationships (Adams, 1994). Again, the process is instantaneous. It is their ability to translate spellings to sounds to word meanings automatically and effortlessly that allows skillful readers to move smoothly through text (Kucera & Francis, 1967).

However, reading really is about *comprehension*, and comprehension of a text depends not on the recognition of its individual words but on the relationships among those words. Nonetheless, without the ability to obtain meaning from each word, readers would struggle to get the meaning of the entire text. Skillful readers note each word in a sentence and then pause briefly at the punctuation mark. At the pause, they construct meaning. If something is amiss, they quickly reread to determine the problem (Just & Carpenter, 1987). Put simply, word recognition is at the core of reading (Daneman, 1991; Stanovich, 1991).

It is hardly surprising, then, that poor reading comprehension is linked closely to poor word recognition skills (Rack, Snowling, & Olson, 1992; Stanovich, 1991; Vellutino, 1991). According to Stanovich (1991), without fluent word recognition, “comprehension processes do not have the raw materials to operate efficiently and understanding of text will be impaired” (p. 443).

Therefore, comprehension depends on rapid word recognition, which depends on the ability to map speech sounds to spellings quickly and accurately. By

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encouraging students to examine every letter of every new word they encounter and by helping them link speech sounds to the spellings they see on a page, phonics instruction provides students with a powerful strategy to decode written language and to recognize unfamiliar words they encounter as they begin to read independently.

The importance of providing students with this strategy cannot be overstated. How well young students develop the skills necessary to read with fluency and comprehension affects their entire lives profoundly. Indeed, it is overwhelmingly probable that a student who is a poor reader at the end of the first grade will remain a poor reader (Juel, 1988).

## How Should Phonics Be Taught?

Good phonics instruction builds progressively upon students' understanding and use of spoken and written language. Good phonics instruction helps students

- become aware of and manipulate the sounds of spoken English (*phonological and phonemic awareness*).
- identify the letters of the alphabet by shapes and names (*alphabetic knowledge*).
- relate sounds to spellings (*the alphabetic principle*).
- read each letter or combination of letters in a word to determine the word's meaning (*word recognition/decoding*).

## Phonological and Phonemic Awareness

Before students can map sounds to spellings proficiently, they must possess an awareness of the workings of spoken language—*phonological awareness*—and, in particular, of the individual sounds in spoken words—*phonemic awareness*. To clarify, more definitions are provided.

- *Phonological awareness* is an umbrella term that encompasses phonemic awareness. It is the ability to think about and manipulate the sounds of language separately from their meaning. Specific features of phonological awareness include an understanding that words can rhyme; that sentences are made of words; and that words have syllables, can begin or end with the same sound, and are made of individual sounds, or phonemes, that can be put together or taken apart to make new words.
- *Phonemic awareness* is the conscious understanding that spoken words are made of individual and separable sounds—*phonemes*. It involves the ability to play with and manipulate these sounds in order to put together and take apart spoken language. Phonemic awareness seems to depend on a student's ability to focus on the sounds (as opposed to the meanings) of words.
- A *phoneme* is the smallest unit of speech that conveys a distinction in meaning (for example, the word *sat* contains three phonemes, /s/ /a/ /t/, and differs by one phoneme from each of the spoken words *sad*, *sap*, *hat*, *mat*, and *sit*).

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## What Does Research Tell Us about Phonological Awareness?

At school entry, the level of a student's phonological awareness appears to be a strong indicator of the success that student will experience in learning to read (Stanovich, 1986). In fact, students who become successful readers invariably have phonemic awareness, whereas those who lack it invariably have difficulty in hearing and distinguishing individual phonemes (Tunmer & Nesdale, 1985). Students' ability to attend to and manipulate phonemes strongly correlates with their reading success throughout their school years (Calfée, Lindamood, & Lindamood, 1973). Good readers can recognize phonemes quickly, accurately, and automatically and can put them together to make words and phrases quickly, accurately, and automatically. Students who lack this ability find it difficult to read single words, much less sentences, paragraphs, or entire texts (Bradley & Bryant, 1983; Juel, 1991; Stanovich, 1994; Tunmer & Nesdale, 1985).

Given this, it is alarming that twenty-five percent of middle-class, first-grade students do not possess phonemic awareness. The percentage is even higher for students who come to school from literacy-poor homes (Adams, 1990).

Although this figure may be alarming, it is understandable. Becoming aware of phonemes is not easy. They are not defined distinctly by their sounds, but rather by their manner of articulation. As words are said, sounds are coarticulated. As language is heard and spoken, attention is focused on the meaning of a word, not on its individual sounds. Why bother at all, then, to teach students to attend to sounds in words? The answer is that letters represent sounds, and students must learn to think of words as having sounds as well as meaning if they are to understand the alphabetic principle and, thus, become successful readers (Stahl & Murray, 1998).

The good news is that phonemic awareness *can be taught* (Ball & Blachman, 1991; Lundberg, Frost, & Peterson, 1988; Williams, 1980). Indeed,



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fifteen minutes per day of direct instruction throughout the school year can significantly help kindergarten students develop important phonological analysis skills (Cunningham, 1990). For first-grade students, fifteen minutes or so of instruction each day for two or three months should be sufficient. For second-grade and older students, phonemic awareness instruction should be necessary only for students who have difficulty recognizing words or who do not read at grade level (CORE, 1999).

### What Does Phonological Awareness Instruction Look Like in the Classroom?

Phonological awareness generally follows a developmental progression with awareness of words, syllables, and rhymes developing in preschool and kindergarten and awareness of phonemes emerging in late kindergarten. Thus, effective phonological awareness instruction for kindergarten and first-grade students follows a sequence of difficulty that begins with larger linguistic units—sentences, words, syllables—and progresses through onsets and rimes (the initial consonant or blend of a syllable is called an *onset*; the remainder of the syllable is called a *rime*) to the smallest linguistic unit—phonemes. However, students can work on more than one unit at a time, and some of the units may overlap (Adams, 1990).

A number of activities develop students' phonological awareness and help them move through the levels of awareness in a reasonable fashion. Such activities include the following:

- listening games
- attending to and producing rhymes
- matching words with the same beginning sounds
- identifying individual words within sentences and comparing word length
- segmenting words into syllables
- segmenting syllables into onsets and rimes
- identifying, isolating, and matching initial and final phonemes
- blending phonemes to make words
- segmenting phonemes to make new words
- adding, deleting, and substituting phonemes in words to make new words

Listening games, such as having students identify the source of nonspeech sounds (for example, a bell ringing, a pencil being sharpened, a door opening), focus attention on sounds and on listening attentively, whereas working with rhymes and matching sounds focuses their attention on the structure of spoken language. Activities with sentences and words introduce students to the concept that a stream of language, called a sentence, consists of smaller units, called words. In turn, work with syllables, onsets, and rimes allows students to gain the important insight that even words can be broken into smaller parts. It is when students are able to manipulate the smallest part of spoken language, phonemes, that they are ready to map sounds to spellings; they are ready for the alphabetic principle (Houston Independent School District, 1996).

In introducing students to phonemes, it should be noted that the hierarchy of difficulty appears to be consistent and



reliable: Blending is less difficult than segmentation; isolating and blending initial sounds is easier than isolating and blending final sounds; isolating and blending final sounds is easier than isolating and blending medial sounds; and segmentation is less difficult than manipulating phonemes through deletion, addition, and substitution. Indeed, even at the end of the year, many kindergarten students are not able to perform these tasks. Such activities may be more appropriate for first graders.

The earliest blending activities for students should use words that begin with continuous consonants (*s, m, l, f,* and *r*), which can be sustained without distortion. Teachers should stretch out and connect, or “sing,” the sounds (*mmmmaaaaannnn*), rather than separating them (*/m/, /a/, /n/*) (California Department of Education, 1999).

From their review of studies that have investigated phonological awareness instruction and training, Smith, Simmons, and Kame’enui (1995) discovered a number of components common to effective instruction, including the following:

- Teachers model individual sounds before students produce them. After students produce the sound, the teacher draws their attention to how the sound is produced (that is, how the sound *feels* when you say it).
- Teachers use concrete representations of the sounds students are manipulating. For example, the teacher models a sound and writes the sound on the board. He or she encourages the students to write the sound and then has them say the sound as they simultaneously move a marker or pointer across the written sound.
- Teachers use explicit instruction and scaffold difficult tasks.
- Teachers focus on combinations of blending, segmenting, and phoneme detection.
- Teachers scaffold linguistic complexity: (a) word length, (b) size of phonological unit, (c) relative difficulty of phoneme position in words, and (d) relative difficulty of phonological properties of words.

## Alphabetic Knowledge

Without the ability to name the letters and to identify and discriminate their shapes—*alphabetic knowledge*—phonemic awareness is of limited value. Further, until students can identify the shape of each letter and discriminate one letter from another, it is pointless to introduce them to the *alphabetic principle*. Unless students can recognize letters quickly and with ease, they cannot begin to appreciate that all words are made of letters and spelling patterns. However, after students are able to

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identify letters quickly, they have little difficulty learning letter sounds and word spellings (Adams, 1990).

The progression of difficulty in learning how the system of written language works is somewhat the reverse of the system for learning spoken language; that is, it begins with the smallest unit (letters) and advances to the largest unit (text). As they attempt to reproduce the letters they see in print, students gain awareness of how lines work together to make letters. Next, they notice how these letters can be combined to form words and finally how words can work together to make text (Maxim, 1993). Unless students can recognize the shapes of letters automatically, without having to stop and think about which letter is made by what combination of lines, they cannot recognize words quickly.

### **What Does Research Tell Us about Alphabetic Knowledge?**

Along with phonemic awareness, alphabetic knowledge measured at the beginning of kindergarten is one of the best predictors of reading success at the end of kindergarten and first grade (Chall, 1996; Share, Jorm, Maclean, & Matthews, 1984). Alphabetic knowledge is correlated strongly with students' ability to remember the forms of written words

and with their ability to understand that words are sequences of letters (Ehri, 1987; Ehri & Wilce, 1985). Children who have little or limited alphabetic knowledge when they enter school are likely to have difficulty later in learning letter sounds and in recognizing words (Mason, 1980; Sulzby, 1983).

It appears that children develop alphabetic knowledge by first learning to name the letters, and then to discriminate their shapes, and finally to identify and map their sounds (Mason, 1980). Many children enter school with a great deal of alphabetic knowledge. They have gained this knowledge through listening to storybooks; singing songs; reciting nursery rhymes; playing with alphabet books, blocks, and shapes; watching and listening to children's television shows; and playing computer and CD alphabet games.

Learning to print letters is an excellent way to develop alphabetic knowledge and to promote children's interest in using written language to communicate. Indeed, for many children who read well before starting school, writing comes before reading (Durkin, 1966). Interestingly, analyses of early writing efforts show that as young children decide how to use letters to make words, they rely heavily on letter names, not letter sounds: *YL* (while), *PPL* (people) (Chomsky, 1979).

### **What Does Alphabetic Knowledge Instruction Look Like in the Classroom?**

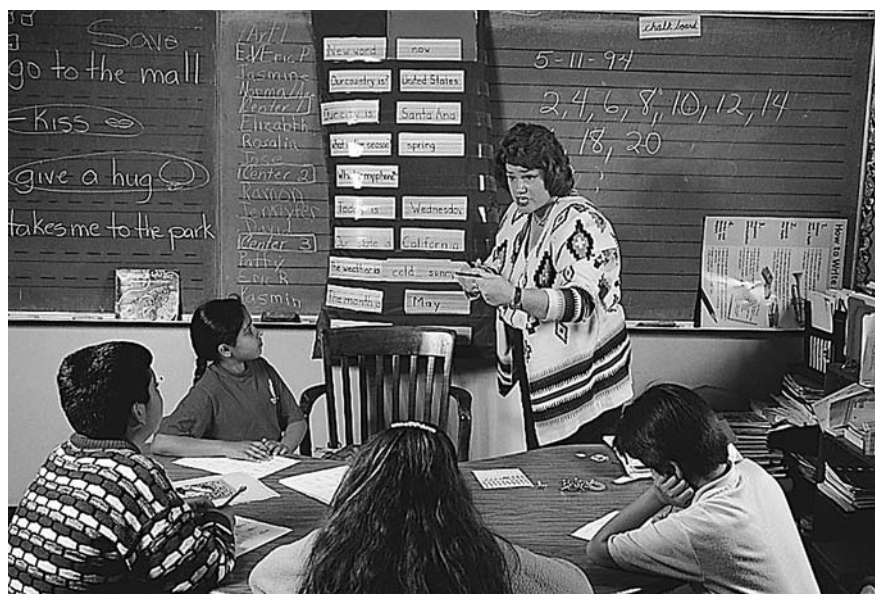
Throughout the kindergarten year, students should have many opportunities to learn the shapes and names of the letters of the alphabet. Activities created around

alphabet songs or alphabet games engage students and provide them with “pegs,” such as rhymes and rhythm, on which to hang their developing knowledge. Alphabetic knowledge should be well established before students enter first grade.

Research offers no guidance to determine the best order for teaching letters. However, effective instruction ensures that students can name each letter and identify its capital and lowercase versions in any order (Stahl et al., 1998). As to whether it is best to teach capitals or lowercase letters first, research again offers limited guidance. Kindergarten students’ existing knowledge of letters is most often of capital letters; on the other hand, ease in recognizing lowercase letters is more important in learning to read text. For this reason, it is probably best to focus first on lowercase letters with first-grade students who have limited alphabetic knowledge. Research suggests that it is not a good idea to try to teach uppercase and lowercase letters at the same time, especially for students with limited alphabetic knowledge (Adams, 1990).

Some lowercase letters should not be taught with each other. For example, *b* and *d* and *p* and *q* are similar in shape and are confused easily by young children. It is best to separate their introduction until students are thoroughly familiar with one letter in such a pair before they encounter the other (Beck & McCaslin, 1978).

After students learn some letters, they should be encouraged to write them. As their knowledge of letters and printed language increases, many kindergarteners will begin to use what they learn to communicate their ideas and thoughts, just as they see adults do. First-graders can use letters to begin writing words or even to write entire sentences. Encouraging students to use *invented spelling* is an especially productive way to develop their interest in written communication, and it contributes to their understanding of the alphabetic principle by leading them to reflect on the sounds in spoken words and to relate the sounds to printed letters. More information about invented spelling is provided later in this guide.



As their knowledge of letters and printed language increases, many kindergarteners will begin to use what they learn to communicate their ideas and thoughts, just as they see adults do.

## The Alphabetic Principle

As already noted, *the alphabetic principle* is the combination of alphabetic knowledge and phonological awareness. It is the principle that letters, graphemes, and letter patterns represent the sounds of the language.

Instruction in the alphabetic principle may be categorized as *implicit* or *explicit*. As the following examples show, there are a variety of implicit approaches to sound/spelling instruction. In its simplest form, implicit instruction begins with whole words that students already know and helps them break the words into their component parts. Explicit instruction begins with letters or letter patterns and helps students build words by blending the sounds of the letters. A few examples illustrate how the two approaches differ.

### Implicit Instruction

This version of implicit instruction was once common in reading programs. To teach the sound of the letter *m*, the teacher might

- write the word *mat* on the board.
- instruct students to listen for the sound they hear at the beginning of the word.

- tell students that this sound is /m/, the sound of the letter *m*.
- show and read aloud to students several other words that contain the /m/ sound, such as *man*, *map*, and *met*, and explain that these words also begin with the /m/ sound.
- show and read aloud another list of words, some with and some without the /m/ sound (*mitt*, *mug*, *bug*, *kiss*, *miss*), and ask students to identify and say those words that have the target sound.

Students also might be asked to complete worksheets by writing the letter *m* where appropriate; selecting the word, from a set of words, that matches a picture; or selecting the picture that goes with the word. Students might be encouraged to use context and pictures to figure out unfamiliar words they see.

Another implicit approach to instruction is referred to as “embedded” phonics (Snow et al., 1998). A teacher using this approach might

- sequence instruction according to a list of rhyming word families.
- present students with a word that contains a targeted spelling pattern.
- delete the word’s initial consonant or consonant cluster and then direct students’ attention to the spelling and sound of the remainder of the word.
- help students substitute other initial sounds and spellings and generalize the pattern to new words.
- have students repeatedly read trade books that contain words with the targeted pattern.

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- have students engage in related writing activities.

A third approach, often called the “whole-language” approach, conducts sound/spelling instruction opportunistically within a context of reading and writing activities. The teacher facilitates rather than directs learning. Instruction may begin with whole words taken from the context of a **Big Book** or read-aloud selection (Snow et al., 1998). The teacher might

- focus students’ attention on a word in the reading that contains a targeted sound.
- during reading, focus attention on other words that contain the same sound.
- conclude the reading with a writing activity.
- offer help in spelling sounds if the students request it.

## Explicit Instruction

A teacher using an explicit approach to instruction usually begins by focusing students’ attention on isolated sounds. In addition, the teacher engages students in activities in which they learn to blend the individual sounds into words. For example, the teacher might

- write the letter *m* on the board and say, “This is the letter *m*, and it makes the sound /m/.” The teacher then has students repeat the sound.
- write on the board a word such as *mat*, which contains the sound /m/ and other sound/spellings that have been taught, and have students blend the sounds to form the word.

- provide whole-class instruction in reading words that have the /m/ sound.
- have students practice the sound/spelling by reading a story that contains a high percentage of words with the /m/ sound.

## What Does Research Tell Us about the Alphabetic Principle?

Understanding the alphabetic principle is a hallmark of successful reading (Adams, 1990). Poorly developed knowledge of the alphabetic principle is the most frequent, debilitating, and pervasive cause of reading difficulty (Bruck, 1990; Rack, Snowling, & Olson, 1992; Vellutino, 1991). If they cannot understand and apply the alphabetic principle, students will find word recognition a struggle, which will impede their comprehension (Snow et al., 1998).

Investigators have considered a number of questions related to effective instruction in the alphabetic principle, including the following:

- Should instruction be implicit or explicit?
- What should be the sequence of instruction?
- Should students be taught phonics rules and generalizations?

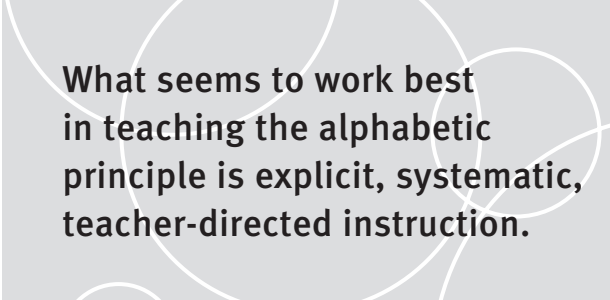
## Implicit versus Explicit Instruction

Much research suggests that for many students, an explicit, systematic approach to acquainting them with sound/spelling relationships is more effective than an implicit, or indirect, approach (Abt Associates, 1977; Adams,

1990; Bond & Dykstra, 1967; Chall, 1967, 1996; Foorman, Francis, Novy, & Liberman, 1991; Kean, Summers, Raivetz, & Farber, 1979). In brief, without explicit, systematic instruction, many students will never catch on to the alphabetic principle.

One problem with implicit instruction is that such instruction may presuppose what it is intended to teach. Indeed, students' ability to analyze words into their separate sounds may depend upon their *already having learned* something about the sounds associated with letters (Anderson, Hiebert, Scott, & Wilkinson, 1985). To illustrate, look at the example of a student who has not yet developed an understanding of the alphabetic principle. Presented with the word *mat* and unaware that the letters in the word each have a distinct sound, the student may not be able to distinguish the /m/ sound from the /a/ sound and the /t/ sound as the word is spoken. Consequently, the student may be frustrated and confused with the teacher's explanation that "The letter *m* has the sound you hear in the beginning of *mat*."

Another problem with implicit instruction relates to having students use context to determine a word. Remember, skilled readers do not rely on context to recognize words as they read. Rather, they quickly process virtually all the letters in each word they encounter. In fact, a reliance on context is a hallmark of less-skilled readers (Stanovich, West, & Feeman, 1981; Stanovich, 1994). The section on Word Recognition/Decoding in this guide more closely examines the problems posed by using context for word recognition.



**What seems to work best in teaching the alphabetic principle is explicit, systematic, teacher-directed instruction.**

What seems to work best in teaching the alphabetic principle is explicit, systematic, teacher-directed instruction. A large-scale comparison of more- and less-explicit instructional approaches has found that the degree of word-reading skill of first-grade and second-grade students appears to be associated with the explicitness of the instructional approach. Students who receive more explicit instruction achieve higher gains in word reading (Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998).

## Sequence of Instruction

What is the best sequence of sound/spellings to teach? The question has no generally agreed-upon, hard-and-fast answer. However, the most effective instruction is geared toward helping students read words as soon as possible. Clearly, some sound/spellings are more useful than others. Therefore, the sequence of introduction should begin with relationships that have high utility in making words (Adams, 1990; Simmons & Kame'enui, 1998).

It also is productive to begin instruction in sound/spelling relationships by selecting some consonants whose sounds can be pronounced in isolation with the least distortion, such as /f/, /m/, /n/, /r/, and /s/. These sounds can be exaggerated in isolation and in the words in which they occur (Adams, 1990; California Department of Education, 1999; Stahl et al., 1998).

Why are vowels not introduced first? After all, vowels are crucial to word making—every word has a vowel sound—and vowels can be said in isolation. However, vowels pose a number of problems. For example, long vowels “say” their names, which gives students a clue to their spellings. However, each long vowel also has several spellings, which can cause confusion as students see the spellings in print (Adams, 1990). Short vowels pose their own problem: They seem to be difficult to learn (Carnine & Silbert, 1979).

### Phonic Rules and Generalizations

Finally, is it valuable to teach phonic rules and generalizations, such as “When two vowels go walking, the first one does the talking.” Consider, however, that although such rules and generalizations



can help students focus on common spelling patterns, they are unreliable and can be misleading. A review of frequently taught rules and generalizations has found that they do not apply to seventy-five percent of the words students are likely to encounter in their reading (Clymer, 1996).

### What Does Instruction in the Alphabetic Principle Look Like in the Classroom?

Beginning in late kindergarten and continuing through first grade, effective instruction provides students with explicit and systematic teaching of sound/spelling relationships.

The sound/spellings are introduced in a logical sequence that begins with one or two single consonant sounds, perhaps /m/ and /s/, and a short-vowel sound, with /a/ being the most productive choice. Several more single consonants (for example, /h/, /p/, /t/, /n/) are added quickly, as well as an additional short-vowel sound (/i/ is a good choice). The idea is that the sequence of introduction should permit the students to work with words as soon as possible. For example, when students have learned the sound/spellings /m/, /s/, /a/, /h/, /p/, /t/, /n/, and /i/, they can read all these words by blending the sounds of the letters together: *am, Sam, sat, map, mat, ham, hat, pat, Pam, pan, tan, tap, man, it, in, sit, sip, hit, hip, pit, tip, Tim, and tin.*

After the initial introductions, some long vowels and digraphs (*wh, th, sh*) can be introduced to permit students to read common words, such as *be, make, wheel, that, and she.* From this point, instruction can proceed systematically to

include increasingly complex or difficult relationships, including diphthongs.

Along the way, instruction takes care to separate the introduction of sound/spellings that are easily confused auditorally—such as /b/ and /v/, /i/ and /e/, /bl/ and /pl/—or visually—such as *b* and *d* or *p* and *g*.

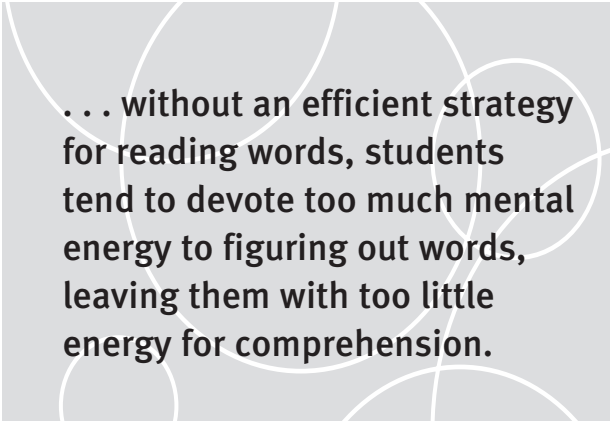
Helping students acquire skills in blending is an important part of sound/spelling instruction. Familiarizing students with a particular procedure for blending early on can be valuable. For example, the teacher might establish a procedure similar to the following:

- On the board, build the word sound by sound, asking students to say the sound each letter or spelling represents as it is written.
- After the whole word has been written, move a hand slowly beneath the letters, and have students say the sound each letter represents.
- If the word begins with a consonant, blend the sounds through the vowel before sounding and blending the complete spelling, for example, /p/, /o/, /po/, /t/, /pot/, pot!
- If the word ends in more than one consonant, blend through one before adding the next, for example, /l/, /a/, /la/, /m/, /lam/, /p/, /lamp/, lamp!
- If the word has more than one syllable, sound and blend each syllable before moving to the next one, for example, /h/, /a/, /ha/. . . /b/, /i/, /bi/, /t/, /bit/. . . /ha-/bit/, /habit/, habit!
- Write a word on the board, and rapidly sweep a hand from left to right beneath the word, leading students to blend the sounds fluently and to pronounce the word naturally.

- If the word is new or less familiar, immediately clarify its meaning, and use it in one or more sentences.
- Write several words with like sound/spellings in a line on the board. After all the words in the line have been blended, ask students to reread the whole line quickly from left to right.
- Direct students' attention to any useful spelling patterns or noteworthy features in the word.

## Word Recognition/Decoding

After the alphabetic principle is established and students are able to translate the spelling patterns of written words quickly and automatically into their phonological counterparts, they can begin to focus more attention on getting meaning from what they are reading. Indeed, without an efficient strategy for reading words, students tend to devote too much mental energy to figuring out words, leaving them with too little energy for comprehension (Stanovich, 1991).



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*Word recognition* refers to the ability to associate a printed word with its meaning. As students begin to read real stories and informational texts, they need to develop effective word recognition strategies that will permit them to identify

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words effortlessly and to figure out the increasing number of unfamiliar words they will encounter.

## What Does Research Tell Us about Word Recognition/Decoding?

The goal of reading, as stated earlier, is not to sound out words—it is to comprehend. The reason for helping students learn to sound out and read words is to give them a strategy for understanding text on their own (Adams, 1990). Without such a strategy, students tend to rely too much on context to get meaning from words. Using context is an unreliable way to identify and read words (Schatz & Baldwin, 1986). The problem is that the words likely to contribute most to the meaning of a text are words that occur less frequently in written language, and are, thus, words that are less familiar to students (Finn, 1977–1978). Therefore, students rely on a text’s context to determine the meaning of its unfamiliar words, but the meaning of the context depends in large part on the meanings of the unfamiliar words (Adams, 1990).

This is not to say that students should *never* use context; rather, teaching students to rely *only* on context may interfere with learning to recognize and process words. When students encounter a word they do not recognize, they should learn to think about the word’s spelling and consider its meaning. After this, the information available from the context will be more helpful to them (Adams, 1990).

To develop fast and accurate—fluent—word recognition, students require a great deal of practice in applying what they are

learning about the sounds and spellings of English. Research suggests that students can benefit from the following five kinds of practice opportunities to build word-recognition fluency:

- Reading words in isolation
- Reading words in decodable text
- Repeated reading of words in real text
- Writing words from dictation and invented spelling
- Working with word families, or phonograms

## Reading Words in Isolation

Although reading words in isolation should not be the primary means students use to practice applying their sound/spelling knowledge, occasional work of this nature has value. Examining words in isolation allows students to focus on targeted spelling patterns. It seems that the more practice students have reading words with a particular pattern, such as /e/ or /j/, the better they become at reading words with those patterns in context (Stahl et al., 1998). However, a program of word-recognition instruction that is largely removed from opportunities to read words in text is likely to be ineffective (Juel, 1994).

## Reading Words in Decodable Text

Sound/spelling instruction is of little value to students if they do not have ample opportunities to read, in connected text, words that conform to the relationships they are learning. From late kindergarten through the beginning of first grade, *decodable texts* are the most appropriate materials for students to use to practice

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word reading. Decodable texts are stories that include a large number of words that contain specific sound/spellings the students are learning, along with some high-utility words, or *high-frequency* words—such as *the, are, said, was, and have*—which are necessary in writing comprehensible and interesting text. Drawing on what they have been taught, students should be able to decode with ease most of the new words they encounter in these texts. Before reading, they should be taught the high-frequency words in the text so that such words will not distract them from focusing on the words they are able to decode (Adams, 1990).

Students who read stories that contain a high percentage of words with previously taught letter-sound relationships have significantly higher word recognition than do students who read stories with no words that match their instruction (Juel & Roper/Schneider, 1985).

*Repeated readings of difficult words and passages will lead to significant improvement in students' fluency, expression, and comprehension.*

## Repeated Readings of Words in Real Text

Repeated reading of **Big Books** and trade books is one of the most effective ways to help students develop fluency (Honig, 1996). The value of repeated reading appears to be this: By increasing their fluency, students are able to direct their attention to the comprehension of text—attention that they previously allocated to word recognition. Repeated readings of difficult words and passages will lead to significant improvement in students'

fluency, expression, and comprehension (Samuels, 1985). Young readers at all skill levels have improved their fluency from an instructional level to a mastery level after three readings of the same text (Sindelar, Monda, & O'Shea, 1990).

## Writing Words

Writing activities in which students learn how words are spelled reinforce their knowledge of sound/spelling relationships and common letter sequences. As a result, such practice enhances reading proficiency (Adams & Bruck, 1995). Early writing practice is generally of two forms: *dictation*, which gives students practice in applying sound/spelling relationships by writing words as the teacher says them; and *invented spelling*, which, as mentioned earlier, allows students to communicate their ideas by using sounds and letters to create spellings as they write. Having students create their own spellings engages them in thinking about the sounds of words in relation to their written representations. Consequently, invented spelling can be an invaluable component of students' development as readers and writers (Adams & Bruck, 1995). Invented spelling is also a valuable assessment tool. The teacher is able to see visually whether or not the students are picking up on the sound/symbol relationship.

What is the value of worksheets and workbooks for writing practice? Well-designed worksheets and workbook pages can be an effective way for students to show what they have—and have not—learned, and practicing tasks in a workbook or on a worksheet can increase word recognition. However, they are effective only if the tasks give students opportunities to apply the

specific skills they are being taught, if they are individualized to their specific needs, and if they are completed under the guidance of a teacher (Osborn, 1984; Juel, 1994).

## Working with Word Families

Students also should have opportunities to become familiar with an increasing number of key sequences of letters and spelling patterns that make words (Foorman, 1995). Word families are groups of words that have a common spelling pattern, or *phonogram*. A phonogram is usually made from a vowel sound plus a consonant sound. It can be less than a syllable (a rime)—but more than a phoneme—and it needs an initial consonant or blend (onset) to make a word (Honig, 1996). A word family based on the rime *-ug* includes *bug*, *dug*, *hug*, *jug*, *mug*, *pug*, *rug*, *tug*, *chug*, *drug*, *plug*, *slug*, *smug*, *snug*, and *thug*.

Helping students recognize phonograms is important because, with only a few exceptions, word families are phonetically regular and comprise a large part of the early texts that students read. For example, as many as five hundred words can be made from thirty-seven common phonograms. The ability to recognize common phonograms can facilitate the process of mapping letters and letter patterns to sounds, and of recalling from memory the word and meaning that correspond to that pattern (Adams, 1990; Honig, 1996).

Work with word families can lead to increased word learning by reinforcing the understanding that a spelling pattern can appear in many words (Adams, 1990). Instruction in word families is most effective when it is presented after students have learned the sound/spelling



relationships and when it builds on the knowledge that students have gained from instruction in those relationships (Ehri & McCormick, 1998; cited in California Department of Education, 1999).

## What Does Word Recognition/Decoding Instruction Look Like in the Classroom?

Effective instruction in word recognition/decoding ensures that students have ample opportunities to practice the sound/spelling relationships they are learning. As each sound/spelling is introduced, students may engage in quick and directed practice identifying isolated words with the sound/spelling. This focuses their attention and reinforces their recognition of the targeted spelling pattern. This kind of practice may include having students complete worksheets that relate directly to what they are learning. However, worksheets and workbook pages are subservient to reading words in text. They never should be used for busywork or as the sole method of instruction.

Next, students read simple, *decodable texts*, which can be made-up stories or informational text that contains a high proportion of words that conform to the sound/spelling they have just learned, along with enough high-frequency words to make the stories sound natural. The decodable text is engaging and coherent—not a series of unrelated words or sentences. After reading, the teacher and students discuss what the story is about to promote comprehension and to underscore the idea that the purpose of reading is to obtain meaning from text. After the entire class has participated in reading and rereading a decodable story, students are encouraged to reread them on their own or with partners during Independent Work Time.

As students learn to decode words, put together sentences, and read whole decodable texts with fluency, they are able to devote more mental energy and attention to determining the meaning of what they read. At this point, a world of literature becomes available to them. Effective instruction moves students into *reading real literature* as soon as possible, ensuring that they read and reread a variety of books. To achieve this goal, the teacher may use a procedure similar to the following:

**As students learn to decode words, put together sentences, and read whole decodable texts with fluency, they are able to devote more mental energy and attention to determining the meaning of what they read.**

- Introduce students to a new book through reading aloud or guided reading.
- Read the book with the students several times until they can read it on their own.
- Place the book in a class library so students can reread it again on their own or with a partner. (The library should contain a large number of books so students do not become bored with reading the same books repeatedly.)

Students have many opportunities to write, using their growing knowledge of sound/spellings and words. Writing may begin with *dictation*, which teaches students to write words based on the sounds and spellings they have learned. In addition, learning dictation gives students a strategy for reflecting on the sounds they hear in words to help them with their writing.

To introduce the strategy, the teacher may use a sounds-in-sequence procedure, in which he or she

- pronounces a word to be spelled such as *fan*, uses the word in a sentence, repeats the word, and then has students say it.
- asks students, “What is the first sound you hear in *fan*?”
- has students say the sound and identify its spelling.
- asks the students to write the spelling for the sound.
- continues the procedure with each sound until the word is complete.
- writes the word on the board and has students check their work against it.
- helps students correct any misspellings in their writing.

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After students gain proficiency with sounds-in-sequence dictation, the teacher moves them to writing entire words from dictation. From this point, they begin to write whole sentences from dictation.

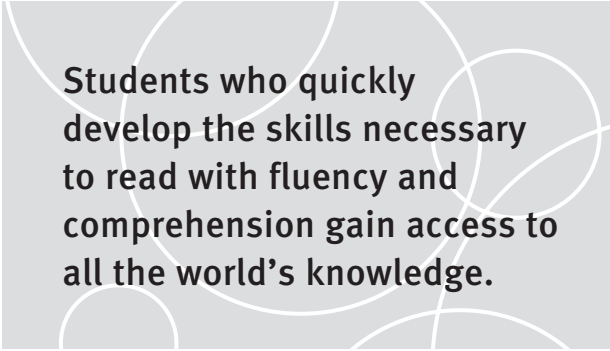
Students also are encouraged to write on their own using *invented spellings*. They may write class books, keep journals, or write independently to express opinions and convey ideas. In their earliest attempts at writing, children may spell a word by drawing a picture or by scribbling. As they begin to gain knowledge of sound/spellings and words, they may use random letters to represent a word. As this knowledge increases, they may begin to use the names of letters to represent sounds in words. However, even at this stage, they may not always use conventional spellings.

After students are well grounded in the sound/spelling relationships, they should be encouraged to apply their knowledge in practice activities that involve word families, or phonograms. They also should be encouraged to recognize similar patterns in their reading and to play word games or rhyming games that allow them to create as many words as possible from a given phonogram.

## Conclusion

As noted at the beginning of this guide, how well students learn to read affects profoundly how well they do throughout

their school years—and their lives. Students who quickly develop the skills necessary to read with fluency and comprehension gain access to all the world's knowledge. They acquire the power to expand their range of learning,



**Students who quickly develop the skills necessary to read with fluency and comprehension gain access to all the world's knowledge.**

thought, and reflection. The evidence is strong and enduring, however, that students who do *not* develop such skills seldom achieve reading success (Juel, 1988; Stanovich, 1986). Helping students acquire reading skills demands our most serious attention. It requires balanced instruction based on the best available knowledge from research and practice. The instructions outlined in this guide can do much to start students on their way to becoming skillful, enthusiastic, lifelong readers and learners.

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