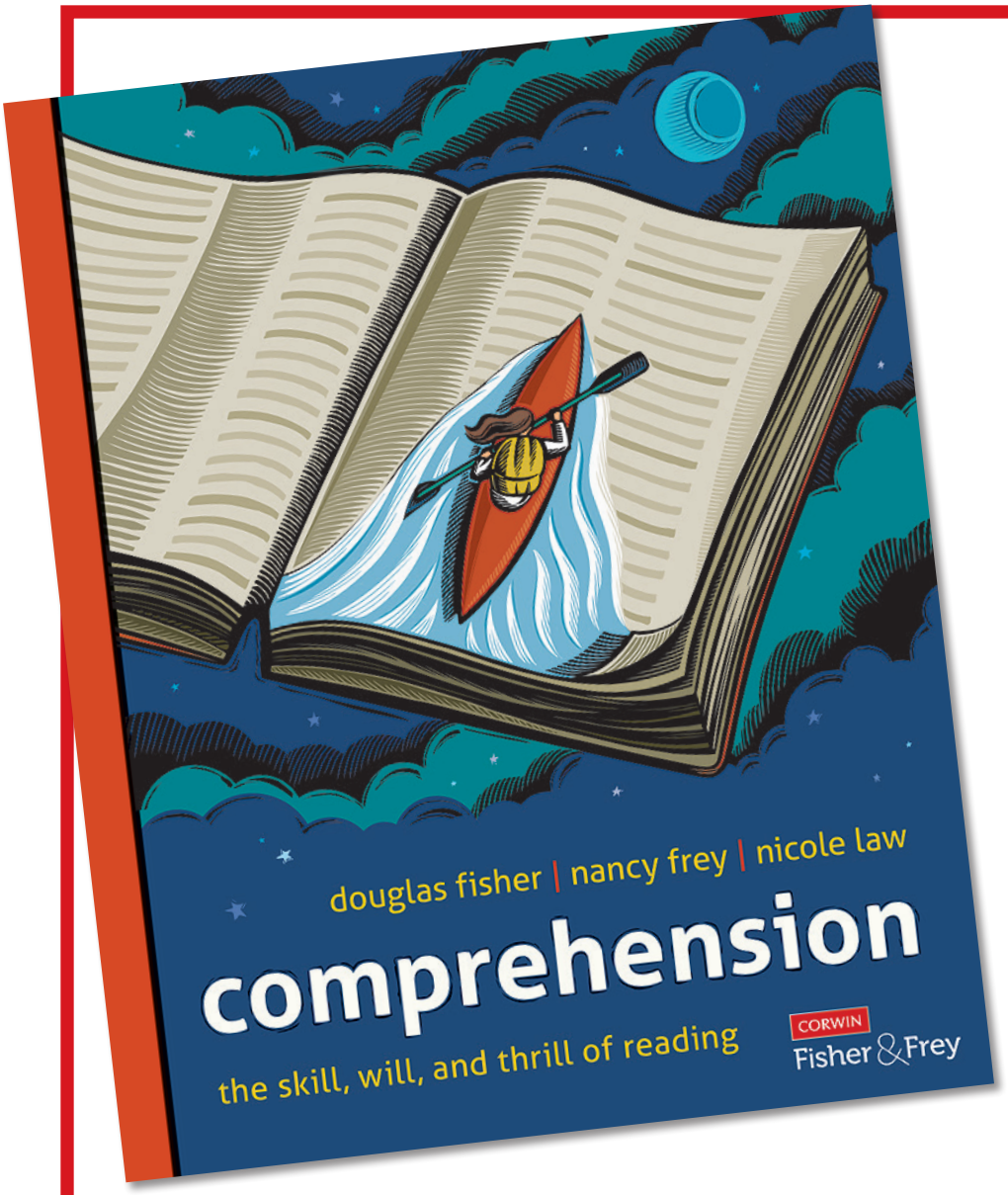

Thank you

FOR YOUR INTEREST IN CORWIN

Please enjoy this complimentary excerpt from *Comprehension*. In this section, the authors discuss the importance of developing constrained foundational skills including phonemic awareness, phonological awareness, and phonics.

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CORWIN
Fisher & Frey

The Sounds of Language

Five-year-old Mateo and his classmates believe they are playing a game, but their kindergarten teacher Lisa Jacobs knows better. Every morning, she leads her students through a fast-paced routine to build their phonological awareness. Her students chant familiar rhymes about the day, clap syllables of longer words, and count words in poems. At the moment, the teacher is leading them in the Take a Trip game. Ms. Jacobs brings out a small suitcase covered in letters of the alphabet and opens it so the students' view is blocked. "Today I'm taking a trip on a train," she begins, "and the conductor told me to put all these sounds in my luggage."

The sounds of language

Mateo and the others know what's coming next—they need to listen closely in order to figure out what the secret sound is for this trip. "I'm going to put a *pot* in here," she says, pretending to place an invisible pot in the suitcase. "And I'm going to need a *mop*, too," she says. "I can't forget my *dog*," she adds, elongating the word just a bit. "Let's see, I've got a pot, a mop, and a dog in my suitcase. Oh, and I need a *sock*," she adds. "A pot, a mop, a dog, and a sock. Tell your neighbor the secret sound."

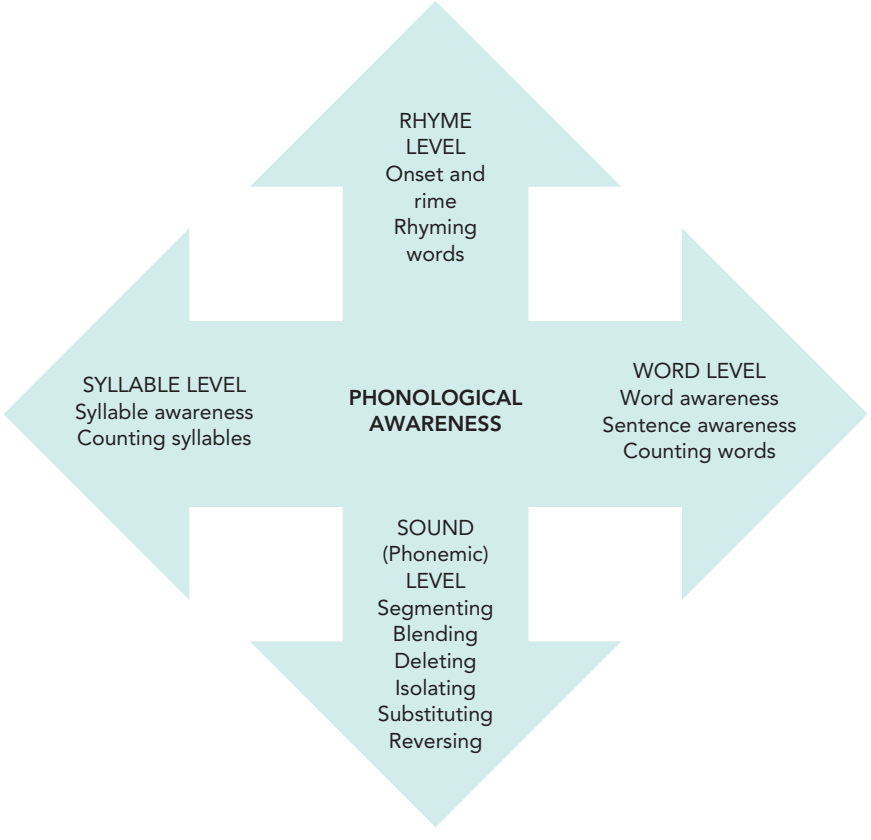
Mateo and the others whisper to each other, making the sound of short /o/.

"Let's make the sound together, and really loud so they can hear us all through the train!" she says. "What other words have the sound of short /o/ in the middle?" she asks. "I'll list them for us." In the next few minutes, the students name *cop*, *not*, *job*, and *doll*, and she encourages them to identify rhyming words to pair with each.

These kindergarten students are benefiting from explicit daily instruction to build their phonological awareness. The term *phonological awareness* describes elemental factors of the sounds of language and one's ability to manipulate those sounds, or what Fitzpatrick (1997) calls "the ability to listen inside a word" (p. 5). These factors occur at four levels (see Figure 2.3):

- *Sound level (phonemic awareness)*
- *Word level*
- *Syllable level*
- *Rhyme level*

Figure 2.3 Components of phonological awareness.



A child who cannot detect and manipulate the sounds of the language will have difficulty in sounding out words for reading or writing.

The sounds of a language form its building blocks for the written form. Young children need to perceive and be able to manipulate oral language in order to understand how these same concepts are represented in print. A child who cannot detect and manipulate the sounds of the language will have difficulty in sounding out words for reading or writing. There are five levels of phonological awareness (Adams, 1990). The first four levels are generally mastered by the end of first grade, while the fifth level typically extends into fourth grade. This is a common misconception, as teachers beyond the primary years may not realize that their elementary students are still refining their phonological awareness and thus may be hindered in their reading growth (see Figure 2.4).

Figure 2.4 Levels of phonological awareness.

Level of Phonological Awareness	Definition	Example
Level 1	Hearing rhymes and alliteration	Perceiving the rhythm and rhyme in "Hickory dickory dock, the mouse ran up the clock"
Level 2	Oddity tasks, such as figuring out which word in a string does not rhyme	Knowing that the word *paste* is the oddity in the sequence *race, vase, place, face*, and *paste*
Level 3	Blending words and splitting syllables	Listening to the sounds of /m/ and /āl/ to say *mail;* recognizing that *mailbox* consists of two syllable sounds
Level 4	Orally segmenting words. This is the opposite of blending words, a Level 3 skill.	The student, upon hearing the word *weight*, can isolate the three phonemes (/wāt/).
Level 5	Manipulation tasks that require the ability to delete, substitute, add, and reverse phonemes	An example of a phoneme reversal is *tell* and *let*.

Phonological awareness skills are primarily taught through a variety of word play games, including chants, songs, poetry, and short daily routines.

Sound-Level Instruction

The first level of phonological awareness is at the individual sound level and is called *phonemic awareness*, which is a subskill of phonological awareness. Phonemes are the smallest units of sound present in a language, and in English there are 44 phonemes. Spanish has 24, while !Xóõ (pronounced /kō/ in English) has 112 phonemes and is spoken primarily in Botswana. As noted in Figure 2.5, the manipulations of the sounds range from segmentation and isolation of individual sounds to reversals. Young children typically learn to attend first to the initial phoneme in a word, such as recognizing

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Phonological awareness skills are primarily taught through a variety of word play games, including chants, songs, poetry, and short daily routines.

that *map, moose*, and *Megan* all begin with the same sound. Final sounds follow shortly thereafter, such as when a student accurately identifies that *lamb*, *Mom*, and *time* end with the same sound. Medial sounds are the most challenging, and Ms. Jacobs's Take a Trip game encourages her students to listen for the middle sound of short /o/ in the words *pot, mop, dog*, and *sock*.

Word-Level Instruction

The sounds of spoken language, including its pauses, are represented in print, too. Voiced words are separated by a millisecond of silence; written words are separated by small spaces. Young readers who detect the pauses in spoken language will more readily recognize that space carries meaning in written language.

Word-level instruction for phonological awareness includes saying to students, "Listen to my sentence and count the words you hear. How many are there?"

Compound words similarly require blending, such as blending the words *ground* and *hog* together to make *groundhog*, then separating them once again into two separate words, and deleting one to isolate the other word. "Let's clap the words. One clap for *ground*, then another clap for *hog*."

Repeat these several times, each time shortening the pause between each. "Now let's put the two words together to make a new one. Clap twice—*groundhog*." After pulling them apart orally, ask students to delete one word.

"What do we have when we say *groundhog* without *ground*? Without *hog*?"

Syllable-Level Instruction

A syllable is an uninterrupted unit of speech, usually with a vowel sound, and may be an entire word (*sun*) or a segment of a word. (*Sun-* and *-ny* are the two syllables in the word *sunny.)* Children use syllable knowledge to work their way through print words and to pronounce new words. Young students love big words, and stories and songs that feature multisyllabic words are an opportunity to draw their attention to this feature of language. Counting the number of syllables in Rumpelstiltskin's name or the names of dinosaurs (e.g., *velociraptor* and *diplodocus*) provides students with opportunities to segment, isolate, and blend sound units.

Rhyme-Level Instruction

Rhymes provide children with a multitude of ways to manipulate sounds. Segmentation exercises for onset and rime structures are especially valuable for developing this skill. An onset is the first consonant sound in a word, while the rime is the remainder of the word (see Figure 2.5 for examples). As they must with the other dimensions of phonological awareness (sound, word, and syllable levels), students must learn to isolate, segment, blend, delete, and substitute sounds to generate rhymes. Songs and poems are a natural place to find lots of rhymes. In addition, word play such as I Spy ("I spy with my little eye something in this room that rhymes with *rock*") and

Figure 2.5 Common onset and rime structures.

Word	Onset	Rime
bun	b-	-un
rate	r-	-ate
short	sh-	-ort
tight	t-	-ight
quest	qu-	-est
yoke	y-	-oke
chalk	ch-	-alk

picture rhyming ("How many words can we think up that rhyme with this picture?") require students to mentally consider the sounds of what they are viewing, further strengthening their phonological memory. This ability to hold sounds consciously in working memory is critical in reading.

These same processes of sound-, word-, syllable-, and rhyme-level knowledge are critical for older students who have not mastered the sound of the language. Ying Yue is a seventh-grade student recently arrived from China. She and her parents moved to the United States to accept a new job with an international firm. However, the girl's knowledge of the sounds of English is minimal, and although she is a strong reader in Mandarin, her heritage language, she needs phonological instruction in order to better leverage her literacy skills in the new language. Some English sounds are not used in Mandarin, such as /v/, /z/, and consonant clusters like /dr/, /pl/, and /st/. Further, words in Mandarin are monosyllabic, with the meaning changing depending on the tonal variation (high level, rising, falling–rising, falling, and neutral; Cheng, 1991). Mark Niu, the bilingual specialist who works with Ying Yue, and her classroom teacher use age-appropriate word games to build her phonological awareness of unfamiliar sounds. Mr. Niu and Ying Yue list food words that contain targeted sounds, then write a short dialogue that includes these words. "It gives her the chance to produce sounds in an authentic way," says Mr. Niu.

She also works in small groups with him. Mr. Niu has students use matching games of photographs and words or sentences. Some students are given photos downloaded from popular websites about movies, video games, and music, while others have sentences that describe the photos. These sentences contain targeted sounds, and students repeat the sentences to build their knowledge of unfamiliar sounds.

The ability to attend to the sounds of the language is crucial for emergent reading development, whether in a first or subsequent language. These sounds are paired with the visual symbols of the language through careful attention to phonics instruction.

Phonics: Sound and Print

Phonics instruction is the process of bolting the sounds of the language to the written symbols of the language. Readers use what

they know about the sounds of language (phonemes) to translate the letters and letter combinations (graphemes) to decode written text. As with phonological awareness, this should never be left to chance. Reading isn't a "natural" process. Unlike spoken language, the brain is not hardwired to acquire the ability to read (e.g., Dehaene et al., 2015; Wolfe, 2001). The early stages of reading development mark profound biological changes in children's brains as they learn to coordinate several neural networks. Chyl et al. (2018) studied brain activation patterns of 111 prereaders and emergent readers using *f*MRI data and determined that "a child's brain undergoes several modifications to both visual and oral language systems in the process of learning to read. [The results] also suggest that print-speech convergence is a hallmark of acquiring literacy" (p. 76).

Reading isn't a "natural" process. Unlike spoken language, the brain is not hardwired to acquire the ability to read.

Phonics instruction begins upon entry to school and includes the names of the letters of the alphabet and their associated sounds. Visual discrimination among letters is vital, as the detection of minute changes in letters (e.g., d, p, q, and g) is necessary in determining the difference between *dale*, *pale*, and *gale*. Letter-sound relationships in English are not limited to one-to-one correspondence, as the 26 letters of the alphabet are used to represent 44 phonemes. Thus, students must also master digraphs, each of which makes a unique sound (*gr, ng, sh, th*, to name a few), and diphthongs or gliding vowels (e.g., *oy, oi*, and *ow*). Young readers are further challenged to match sounds to trigraphs (e.g., *sch, nth, thr*, and *squ*) and to r-controlled vowels (e.g., *or* in *cork*, *ir* in *third*, and *ur* in *curl*).

Phonics Instruction

Phonics should be taught with intention, and with a clear scope and sequence so that all children are receiving explicit daily instruction. There is well-deserved criticism of literature-based curricula of the past that did not include a strong phonics component, relying instead on chance occurrences and discovery learning. As Doug likes to say, "We don't need to waste a child's time hoping he discovers that the letter *s* makes the /s/ sound." However, nearly all contemporary comprehensive reading curricula come with a scope and sequence of phonics instruction. The design of these programs should follow the National Reading Panel's recommendation that

There is well-deserved criticism of literature-based curricula of the past that did not include a strong phonics component.

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When using a synthetic phonics approach, students' attention is brought to each letter in a word from left to right. Moreover, letters are taught not only in the initial position of a word but also in the medial and final positions.

systematic phonics instruction, "a planned, sequential introduction of a set of phonics elements along with teaching and practice of these elements," is necessary for reading acquisition (National Reading Panel, 2000, pp. 2–89).

Having said that, it is the teacher's responsibility to ensure that robust daily phonics instruction occurs.

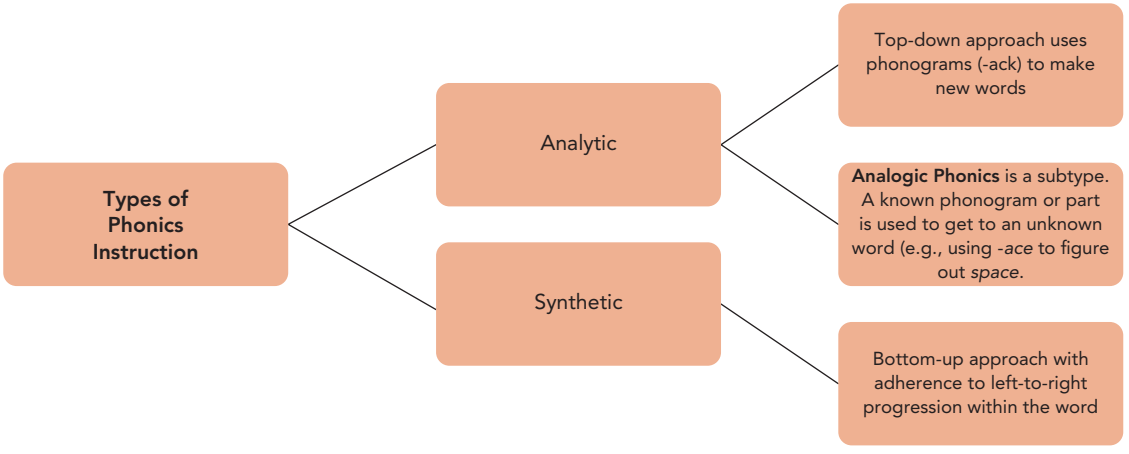
Types of Phonics Instruction

Phonics instruction draws on three distinctive approaches to help students acquire the skills needed to decode accurately and fluently. The three are synthetic phonics, analytic phonics, and analogic phonics, and learners benefit from judicious use of all three.

Synthetic phonics, which aligns most closely with the Simple View of Reading (Gough & Tunmer, 1986) uses a part-to-whole approach to learning the relationship between phonemes and corresponding letters and letter combinations. When using a synthetic phonics approach, students' attention is brought to each letter in a word from left to right. Moreover, letters are taught not only in the initial position of a word but also in the medial and final positions. Attention to reading each word across the word provides students with opportunities to blend and segment letters and corresponding sounds, while focusing on each element of the word (see Figure 2.6).

Unlike synthetic phonics, which focuses at the phoneme level, *analytic phonics* attends to larger sound units (phonograms). Thus, a teacher may begin with a phonogram such as *-ook* to build the words *book, cook, hook, look*, and *shook*. If this sounds a lot like the onset-and-rime component of phonological awareness, you're right. This is a top-down approach, and in combination with the bottom-up intention of synthetic phonics, it further strengthens the child's ability to manipulate letter-sound correspondences.

Figure 2.6 Types of phonics instruction.



Analogic phonics is a subtype of analytic phonics and is used to assist students in using known words to get at unknown words. For example, a student may know the word *owl* but stumbles on *growl*. The instruction is focused on two elements—reading the entire word from left to right, and utilizing the part that the student already knows. This should not be confused with guessing at a word—we never want students to simply guess. Rather, the intention with analogic phonics is to help the reader locate and consolidate the information she has in order to take on a new word.

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Unlike synthetic phonics, which focuses at the phoneme level, analytic phonics attends to larger sound units (phonograms).

As discussed in Chapter 1, automaticity is essential to reading. Rapid automatized naming (RAN) is a measure of a child's ability to name letters, words, and nonwords (also colors and numbers) quickly and is a predictor of decoding and comprehension (Araújo et al., 2015). Therefore, daily phonics instruction should include opportunities

for spaced practice and overlearning. *Spaced practice* provides short periods of intensive rehearsal at regular intervals. Attention each day to phonics development ensures that students are practicing at a pace that aligns with the learning sciences. *Overlearning* is what builds automaticity, as the student continues to rehearse known skills in order to make them increasingly efficient while requiring a diminishing amount of effort and attention. One example is using flashcard decks composed of mastered letters or words mixed in with newer and less well-known ones. Figure 2.7 features a table of considerations for teaching phonics.

Figure 2.7 Considerations for teaching phonics.

Practice	Considerations
Teach students to recognize and write single letter-sound correspondences.	Introduce letters that are very dissimilar in sound and appearance (e.g., /a/ and /t/) and gradually narrow the contrast in sound and appearance (e.g., /b/ and /d/).
Introduce short vowels and long vowels early so that students can form simple words.	Consonant-vowel-consonant (CVC), CVCC, and CVC-e words (silent e) compose most of the words in decodable and vocabulary-controlled texts.
Teach students to recognize and write blends, vowel and consonant digraphs, and more complex letter combinations in words.	Begin by introducing easier combinations such as /sh/ and /th/, progressing through vowel digraphs such as /ea/ and trigraphs such as /ght/ and /thr/.
Use explicit instruction of phonics to ensure all students are progressing at expected levels.	Use modeling with think-alouds and direct instruction to introduce skills. Use repetition, deliberative practice, and application through oral and written language to build automaticity.
Use synthetic, analytic, and analogy-based approaches to phonics instruction.	Young children benefit from each of these approaches, as each shows students how words are decoded.
Integrate phonics skills and knowledge into connected texts.	Deepen phonics knowledge by highlighting its use to decode familiar and unknown words in reading materials.
Teach to automaticity.	Students must develop automaticity in decoding in order to gain the cognitive space needed to comprehend and make meaning.

Source: Fisher, D., Frey, N., & Akhavan, N. (2020). *This is balanced literacy grades K–6,* p. 47. Corwin. Used with permission.