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EQUIPPED FOR

READING SUCCESS

A Comprehensive, Step-By-Step Program for
Developing Phoneme Awareness and
Fluent Word Recognition

David A. Kilpatrick, Ph.D.

Professor of Psychology
State University of New York, College at Cortland

EQUIPPED FOR READING SUCCESS:
A Comprehensive, Step by Step Program for
Developing Phoneme Awareness and Fluent Word Recognition

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FLUENT WORD RECOGNITION AND PHONEME AWARENESS

It is difficult to overestimate the importance of reading in our culture and in our educational system. Yet, according to U.S. Government statistics, nearly one third of fourth graders are substantially behind grade level in reading. In addition, the *National Research Council* reported in 1998 that 40% of adult Americans did not feel comfortable enough with their reading skills to read a whole book. These people are *not* illiterate. They can read. However, their reading skills are not strong enough for them to enjoy reading.

Reading is critical for *all* school subjects. Science and social studies require textbook reading. Many math tests now require reading. Students read word problems and explain their responses in writing. Poor reading virtually guarantees poor writing skills. Art, music, health, and physical education classes sometimes include background reading and written projects. As a result, reading skills affect a student's entire academic experience.

How well children succeed in school affects their future endeavors in life. While we all know of cases to the contrary, it is ordinarily the students who do well in school who are more likely to go to college and have greater career opportunities. Some children with high intelligence are unsuccessful in school because of weak reading skills. No matter how intelligent a student is, if he reads poorly, he will think of himself as "dumb."

Poor reading can also affect school behavior. Many children who display school behavior problems are poor readers. Because they cannot find reinforcement through academic success, they direct their attention and effort elsewhere, often resulting in behavioral problems. Also, a disproportionate number of poor readers become high school dropouts.

School districts and the federal government are fully aware of the impact reading has on students and on society. Each year, millions of dollars are spent on extra reading help, whether general educational help or special educational help. Rarely do weak readers "catch up." Normally they display slow, gradual progress and they hit a plateau well below grade level.

In education, our assumption that a substantial number of students will be poor readers has become "institutionalized." In other words, we expect it, we program for it, and we budget for it. It is time to challenge this institutionalized assumption. There is enough scientific information

available to make such a challenge. Research over the last 30 years has indicated that most reading difficulties can be prevented, and among those that cannot be prevented, poor readers can make far greater progress than we have been experiencing in our schools.[1]

Bridging the Gap between Reading Research and the Classroom

For the last 30-40 years, researchers in psychology, education, special education, linguistics, speech pathology, pediatrics, and neurology have been studying the cognitive,[2] linguistic, and academic skills children need to be good readers. Unfortunately, very little of this has made its way into our schools. In 1999, the *American Federation of Teachers,*[3] the second largest teacher's union, noted the gap between scientific reading research and classroom practice. To illustrate this gap, consider the recent popularity of phonological awareness instruction in schools. It seems that phonological awareness began to gain attention in education following the National Reading Panel's report in 2000. It has nearly become an educational fad. Consider a quote from the *Journal of Educational Psychology:*

> The ability to perceive a spoken word as a sequence of individual sounds, which has been referred to recently as phoneme awareness, phonological awareness, and auditory analysis skill, is attracting increasing attention among reading researchers. The high correlation between this ability and success in reading is by now well established.

This quote seems to support the recent surge of interest in phonological awareness. However, this quote comes from 1980! It took nearly 20 years for this scientific finding to make its way into public schools. To be accurate, phonological awareness *was* popular in the 1970s and early 1980s via the Rosner and Lindamood programs. Unfortunately and ironically, such training fell out of favor shortly after this quote was made. Reading "philosophies" in schools began to change in the 1980s, but researchers continued to study the impact of phonological awareness on reading development and reading difficulties.

This twenty-year gap between research and classroom practice illustrates the point made by the *American Federation of Teachers,* mentioned above. Unfortunately, the push for more phonological awareness training since 2000 does not seem to have taken hold to a substantial degree. A 2009 special issue of the *Journal of Learning Disabilities* was devoted to this gap between research and classroom practice. Findings suggest that during their undergraduate and graduate training, teachers do not receive sufficient exposure to scientific research into reading, including the importance of phonological awareness instruction. I worked simultaneously in

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[1]Not all studies get such impressive results. Studies that do not involve phoneme awareness training typically produce minimal results, even when they use explicit, systematic phonics and reading practice. Studies that involve phonics, reading practice and training in *basic* phoneme awareness instruction (segmentation and blending; see Chapter 7) show moderate results. Studies that use phonics instruction, reading practice, and *advanced* phoneme awareness training (explained in Chapter 7) demonstrate the highest results.

[2]The term *cognitive* refers to one's thinking skills or mental skills, including perception, memory, retrieval, etc.

[3]See their publications listed in the bibliography. I will not be citing references for all of the facts presented. This volume is designed for teachers and parents, so for ease of reading, the standard APA in-text citation format is not used. The sources for the facts and research results presented in this manual are listed in Appendix M.

both a university setting and a public school setting from 1994 to 2016, so I am keenly aware of this "information gap." This book attempts to help bridge that gap.[4]

How Written Words are Stored in Memory: A Major Discovery in Reading Research

In recent years, there has been a breakthrough in our understanding of reading. Scientists have figured out how we store words for immediate and effortless retrieval. The ability to quickly store new words is the mark of a good reader. Most educators assume we store words by some sort of visual memory. This is not an accurate assumption (see Chapter 4). This book is designed to inform teachers, school administrators, and parents about what researchers have discovered about written word memory and retrieval. Chapter 4 describes this finding in detail. Chapters 5 to 14 will show how to use these findings to improve reading ability.

It is difficult to overestimate the significance of this finding. We've been teaching and remediating reading for many years, not knowing the precise details of how words are actually remembered in our long-term memory. We have had various beliefs and guesses about the process, typically assuming that we store words based on visual memory. We now know that this is definitely *not* the case (see Chapter 4). Without understanding the process by which words are efficiently remembered for later, instant recall, we will continue to "shoot in the dark" to find ways to help struggling readers. However, given that we now have a good understanding of how written words are remembered, we are in a great position to take a fresh look at both early reading instruction and reading remediation.

Learning From Good Readers

A common belief about reading is: "As long as the student gets the meaning, that's all that matters." Unfortunately, many children require great effort to get the meaning due to limited word recognition skills. By contrast, good readers quickly and effortlessly recognize all or almost all of the words they read. Weaker readers typically resort to compensating. We are not helping these children by letting them function that way. With each passing year, the reading vocabulary load increases, so compensation becomes more challenging. When word recognition is difficult, all school subjects suffer, and so does a student's motivation. Reading comprehension is our goal, and *the most direct route to good reading comprehension is to make the word recognition process automatic so a student can focus all of his or her mental energy on the meaning* (for more about compensators, see Chapter 13).

Good readers do not struggle over words—continually guessing or sounding them out. When they see words, they *immediately* recognize them. Table 1.1 provides some facts about good readers. For good readers, word reading is fluent. *Fluent* means fast *and* accurate, and includes proper expression. Fluent readers comprehend more of what they read because they can focus their attention on the *meaning,* not on figuring out the words. Meaning-focused reading approaches do not provide a way of overcoming poor word-level reading skills.

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[4]See also Kilpatrick, D. A. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties.* Hoboken, NJ: Wiley & Sons, for a thorough documentation of the reading research that supports this book.

Good readers can recognize a word in 1/20th of a second.

Good readers can recognize a word flashed on a screen for 1/20th of a second.[5] They don't *respond* that quickly, but they only require *input* for 1/20th of a second to recognize a word. These experiments use words out of context, so *good readers do not require context for instant and accurate word recognition.[6]*

Good readers can read 150-250 words per minute.

When reading non-technical material, the average skilled reader can read rather quickly.

Good readers can immediately recognize tens of thousands of words.

Depending on the size of the reader's oral vocabulary and reading experience, the number of words that good readers can instantly recognize is huge (between 30,000 and 70,000 words, or more).

Good readers learn new words very quickly.

By second grade, average readers only require between one and four exposures to a new word before it becomes permanently stored for immediate retrieval. At first this seems hard to believe, but it has much experimental backing and fits with the growth rate in sight vocabulary we see in children.[7]

Good readers don't forget the words they learn.

Once good readers learn words, they don't forget them.[8] If a child keeps forgetting words he or she has learned, that indicates those words were not truly "learned," but had been previously identified through compensating strategies. They were not efficiently stored for later retrieval.

TABLE 1.1

KEY CHARACTERISTICS OF GOOD READERS

The point here is to emphasize the importance of efficient memory for written words (i.e., word storage). Researchers have discovered the mental process we use to efficiently store words for instant, effortless retrieval. It is called *orthographic mapping*. *Orthography* comes from the Greek words *orthos* (meaning "straight" or "correct") and *graphos* (meaning "writing"). Orthography refers to our knowledge of the correct way to write words. We develop a memory for the precise letter order of words. This is called *orthographic memory*. For example, when we see the word *pear* we think of a fruit yet when we see the word *pair* we think of a set of two things. Our memory for the precise order of the letters in those words activates the proper meaning, even though, in this case, the pronunciation is the same. Orthographic memory occurs at two levels of precision. First, we must have a precise enough orthographic memory to recognize the words we read. When we see the word *sent*, we do not confuse it with *set* or *send*. The second level of precision, which is often more difficult, allows us to correctly spell words. So, for example, most adult readers can instantly read words like *tongue, bouquet, colonel,*

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[5]This happens even though the word is followed by characters (e.g., #####) to cancel out any retinal after-image.

[6]Context is needed to determine the meaning of words with multiple meanings, such as *match* or *ring*. However, no context is required to effortlessly recognize the pronunciations of words (except for *homographs*, which are printed words that have multiple pronunciations, like *bass, dove, lead*, and *wind*).

[7]The average child entering first grade can read 50-500 words. Two years later, entering third grade, they can instantly recognize several thousand words. Mathematically, for that to happen, students would have to remember new words after only a few exposures, rather than dozens of exposures per word.

[8]Notice we sometimes get "stuck" on the name of someone we have known for years or "stuck" on a word we are trying to say, yet we never get stuck on the *written* words we have already learned.

license, rendezvous, or *licorice,* yet far fewer adults can correctly spell them. For our purposes, we will be focusing on the first level of orthographic memory, that is, being able to remember a sequence of letters well enough to instantly trigger the word without sounding it out or guessing.

Chapter 4 explains how we remember the words we read via orthographic mapping. This memory process leads to effortless retrieval of familiar words. Orthographic mapping is thus the process we use to develop our *sight vocabularies.* A *sight vocabulary* (which scientists call the *orthographic lexicon),* refers to the pool of words we can immediately and effortlessly recognize regardless of whether they are phonically "regular" or "irregular," so sight words are words we instantly recall from memory. Students who are good orthographic mappers have large sight vocabularies and read fluently. Students who are poor orthographic mappers have limited sight vocabularies and lack fluency. Thus, orthographic mapping is a major discovery that should dramatically affect how we understand and teach reading.

There are several mental skills associated with word reading. Phoneme awareness appears to be one of the most important of these skills. Phoneme awareness refers to the ability to notice that *spoken* words can be broken down into smaller parts called *phonemes.*[9] It may be surprising that an auditory-linguistic skill like phoneme awareness could affect word reading, but it most certainly does. Those with good phoneme awareness are usually good at remembering the words they read. They learn new words quickly and do not forget them. Those weak in phoneme awareness learn words slowly and often forget them. Studies show that as phoneme awareness improves, word reading typically improves as well.[10] While it has been known for decades that phoneme awareness is important for word-level reading, the discovery of orthographic mapping has helped us understand precisely *why* this is the case. Phoneme awareness is not the only skill that affects word reading. Yet it is very critical and it has not commonly been a part of our efforts at teaching reading. Chapter 4 explains why phoneme awareness is so important for remembering the words that we read.

Word Identification vs. Word Recognition

Someone may say to you "go into the meeting in the next room and tell the tall man with red hair and glasses that he has a phone call." Based on such cues, you could *identify* that man even if you have never seen him before. But sending you in the next room to tell your best friend she has a phone call is quite a different task. You already know your best friend. You don't need cues to *identify* her. Rather, you simply *recognize* her when you see her.

It is similar with reading words. We can distinguish between the terms *word identification* and *word recognition.* *Identification* is a broad term that means that a student correctly reads a word, regardless of whether he sounded it out, guessed, or retrieved it from memory. Identification often takes effort. By contrast, word *recognition* refers to the retrieval of a *familiar*

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[9]See Chapter 2 for the distinction between the terms *phonological awareness* and *phoneme awareness*.

[10]This depends on the age at which students develop phoneme awareness. Older students who develop these skills late may not automatically improve their reading. This is probably because he has spent a few years developing the habit of approaching reading in a compensating manner. Strategies for addressing this problem are found in Chapters 6 and 13.

word from memory. There is no need to guess or sound out the word. *Recognition* is instant and effortless. It is based on whether or not that particular word is in a student's sight vocabulary (i.e., the words he can recall from memory). Word identification includes phonic decoding, guessing, *and* word recognition (see Table 1.2). However, in this manual I will avoid the term *word identification* and use words more specific to how children read, such as *word recognition* (instant recognition of familiar words), *phonic decoding* (sounding out an unfamiliar word), and *guessing* (using context or other cues to read an unfamiliar word).

Types of Word Identification		
Sounding-out unfamiliar words	Guessing unfamiliar words based on contextual, linguistic, or pictorial cues	**Word Recognition** instantly recognize familiar words

TABLE 1.2
TYPES OF WORD IDENTIFICATION

The term *decoding*, like the term word identification, is used in different ways. It can simply mean reading a word, regardless of whether the words was sounded out, guessed, or recognized from memory. This meaning of the word decoding is used to distinguish the word reading aspect of reading from the comprehension aspect of reading. Decoding is also commonly used in a more narrow sense of figuring out an unfamiliar word. For clarity, I will avoid the term decoding except in the phrase *phonic decoding*. Instead I will use the terms *word reading* or *word-level reading* to refer to reading words, regardless of whether the words are familiar or unfamiliar (i.e., read via phonic decoding and/or guessing).

Identifying unfamiliar words requires effort. Word recognition is effortless and instant. Word recognition draws from a student's pool of known words. Because instant word recognition is effortless, it allows students to focus on comprehension. Orthographic mapping helps explain how words become familiar. If a word is "mapped" to permanent memory, it is a familiar word and instantly recognizable. No sounding-out or guessing is needed. If a word has not been "mapped," it is not familiar and needs to be identified in some other way. None of the classic reading approaches (phonics, whole word, or whole language) have done an adequate job with word *recognition*. The exciting news is that for the most part, scientists have pulled back the curtain on how words become familiar for instant recognition. This is why mapping needs to be a central focus of our teaching efforts (see more in Chapter 4).

The Skills Needed for Word Recognition and Phonic Decoding

To recognize words quickly and accurately, or to sound-out new words, students need a combination of cognitive, linguistic, and academic skills. Table 1.3 lists the skills that contribute to instant word recognition and phonic decoding. These skills affect who becomes a good reader and who does not. This list is a bird's-eye view of the components of the word-reading process. We must pay attention to these skills in order to *equip* students to be successful readers (hence

the name of the program *Equipped for Reading Success*). Most of these skills will be addressed at various points throughout this manual (see also the Glossary). In Table 1.3, I have indicated which skills are primarily needed for phonic decoding (PD), instant word recognition (WR), and which are needed for both. For clarity, this distinction regarding which skills affect PD vs. WR is somewhat oversimplified.

Oral vocabulary is a key component in reading comprehension, but also seems to play a minor role in word recognition.[11] Vocabulary is a *higher-level* language skill. Phoneme awareness, oral blending,[12] phonological working memory, rapid automatized naming, and verbal-visual paired-associate learning are *lower-level* linguistic skills. These latter skills have not received much attention in the teaching of reading, despite being examined in hundreds of studies. "Behind the scenes," these skills determine which students develop normal reading skills and which students do not. Looking at the skills in Table 1.3, it is clear that schools teach letter-sound skills and vocabulary. Yet to avoid reading problems, we must take account of *all* the key components that determine phonic decoding and instant word recognition.

COGNITIVE & LINGUISTIC SKILLS:	*Higher-level language skill:* • Phonological long-term memory/oral vocabulary (PD & WR)
	Lower-level linguistic skills: • Phoneme awareness (PD & WR) • Phonological working memory (PD) • Rapid automatized naming (WR) • Oral blending (PD) •Verbal-visual paired-associate learning (PD)[13]
ACADEMIC SKILL:	• Letter-sound skills (PD & WR) *Note: PD = Phonic Decoding; WR = Word Recognition*

TABLE 1.3

SKILLS NEEDED FOR WORD IDENTIFICATION AND RECOGNITION

Understanding the Reading Process – The 'Simple View' of Reading

Everyone agrees that the goal of reading is to comprehend what is read. What, then, are the skills required for reading comprehension? Philip Gough's "Simple View of Reading"[14] helps answer this question. The Simple View of Reading identifies the main ingredients of the reading process and has helped scientists understand both skilled reading as well as reading difficulties. For teachers, the Simple View of Reading is a very practical way to 1) understand the reading

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[11]Phonologial long-term memory refers to words that are orally familiar, whether or not the meaning is known. Research shows that oral familiarity plays a central role in word reading. Meaning is obviously essential for comprehension but it is not essential for word-level reading. For example, I took Spanish in school and can still read it fluently, but I do not know what it means. The ability to read words at a level above your reading comprehension level is called *hyperlexia*.

[12]Some research suggests that phoneme awareness and oral blending reflect a single, *underlying* skill. But "on the surface," they pop up in different places in the reading process, so I have kept them separate here (see Chapter 7).

[13]The study of paired-associate learning has been around for over 100 years. Yet only in the last few years have researchers studied its relationship to other linguistic skills and to our emerging understanding of word storage. It appears that its primary role is in learning letter names and letter sounds.

[14]The *Simple View of Reading* was developed in the 1980s by Philip Gough and his colleagues. I have further developed it drawing from reading research over the last 25 years.

process, 2) make sense of reading difficulties, and 3) organize assessments, and 4) make instructional decisions (i.e., what to teach and how).

The *Simple View of Reading* divides reading into its most basic components. Reading comprehension is the product of two very broad skills, *language comprehension* and *word-level reading*. Gough argued that students do not struggle in reading if they have both good language comprehension (i.e., they understand material that is read *to* them) and good word-level reading skills. By contrast, students will struggle in reading if they are poor in language comprehension or word identification, or both. This is the most basic level of the *Simple View of Reading*. The Simple View breaks down language comprehension and word-level reading further into their component skills as seen in Table 1.4 (items with an asterisk have been added based on research since Gough's original version of the Simple View).

READING COMPREHENION is based on:	
Language/Listening Comprehension, which is based on:	*Word-Level Reading, which is based on:*

• Vocabulary, grammar, verbal intelligence
• Inferencing*
• Background Knowledge*
• Attention*
	• Cipher Skills:
	   - Phoneme awareness
	   - Letter-sound skills
	• Word Specific Knowledge

Table 1.4

THE SIMPLE VIEW OF READING

Language Comprehension. Language comprehension is based upon vocabulary as well as knowledge of grammar, inferencing, and background knowledge. Consider the following simple passage (cited in Stuart, Stainthorp, & Snowling, 2008):

> Jane was invited to Jack's birthday. She wondered if he would like a kite. She went to her room and shook her piggy bank. It made no sound.

Most first graders would have no difficulty understanding this, but they would require inferencing skills to do so. Inferencing involves "filling in the blanks" of what a person meant without actually saying it. For example, we infer she will be buying a gift (thus the comment about a kite and her piggy bank). But one must have background knowledge to know what a piggy bank is and what it means that it made no sound when it was shaken. There is so much not actually stated that must be inferred, even in such a simple first grade level passage. In addition to inferences, *attention* is critical. Lapses in attention affect comprehension. If there is part of a story or of a set of instructions that a student did not fully hear because of a lapse of attention, he or she will have a difficult time understanding what was said (or read).

Word-Level Reading. Word-level reading is based on *cipher knowledge* and *word-specific knowledge*. A *cipher* is a type of code, and *cipher skills* refer to the abilities that are needed to deal with the "code" of written English. These skills are *letter-sound skills* and *phoneme awareness*. Both of these will be discussed in more detail later. *Word-specific knowledge* refers to a reader's pool of knowledge about specific words, based on past experience. For example, readers know they are not supposed to pronounce the *b* in *thumb* or the *s* in *island*, based on past experience with those words. However, word specific knowledge is not just for words with irregular spellings. Knowing that *save* is phonically regular and is pronounced so that it rhymes with *gave,* and not like *have*, also represents word specific knowledge.

In recent years, *fluency* has received much attention. To develop fluency, a student must be skilled in all of the components of word recognition: automatic phoneme awareness, automatic letter-sound skills, and a large pool of known words. If all of the sub-processes of reading are fast and automatic, the student is almost certainly going to be a fluent word reader.

The Four Types of Reading Difficulty

The Simple View of Reading provides a basic yet powerful framework for understanding reading difficulties. Because reading comprehension can be affected by language difficulties or word reading difficulties (or both), the Simple View can alert us to the source of a reading problem. Based on the Simple View, reading difficulties can fall into one of four types:

1) Dyslexia   2) Hyperlexia   3) Combined/Mixed type   4) Compensator type

Dyslexia. Dyslexia is the most common type of reading problem. Unfortunately, in our societal consciousness it has been shrouded in 100-year-old misconceptions. The last 40 years of research into dyslexia have clearly shown that those with dyslexia do not see things backwards nor do they have any other sort of distortions in their visual skills. In fact, dyslexia is based upon what is called the *phonological-core deficit*. The problem is phonological/auditory, not visual. While those with dyslexia generally display normal visual skills, they display one or more deficiencies in *phoneme awareness*, *rapid automatized naming*, *phonological working memory*, *phonological blending*, or *phonic decoding,* all of which are skills that are primarily phonological in nature, not visual (Chapter 14 discusses the phenomenon of reversing and transposing letters). Contrary to popular misconceptions, dyslexia is simply defined as poor word-level reading skills despite adequate effort, learning opportunities, and normal language skills. That's it. All else is based on popular lore.

Traditionally, the term dyslexia has not been used in schools. Recent state and federal initiatives have made dyslexia a specific category of educational disability, despite already being in the law under a different name. In the federal law, dyslexia has been referred to by two different terms: *Specific Learning Disability in Basic Reading* or *Specific Learning Disability in Reading Fluency* (see Chapter 14 for more on dyslexia).

Students with dyslexia usually have no difficulty understanding spoken language. Yet they display great difficulty learning to read words. This often affects reading comprehension because students with dyslexia (i.e., poor word-level readers) direct so much of their attention toward figuring out the words, little attention is left to focus on the meaning of what they read.

Hyperlexia. Students who can read words proficiently yet have difficulty comprehending what they read have a condition called *hyperlexia*. This name is derived from the fact that these students can read words at a level above and beyond (i.e., *hyper*) what they can understand. Hyperlexia involves a compromise in the ability to understand language generally, oral or written. This is called a *receptive language* difficulty. Such students should receive a language evaluation from a speech-language pathologist. This type of reading problem is actually a language problem that affects reading rather than a problem unique to reading. Hyperlexia should be addressed by remediating the language difficulties along with an emphasis on reading comprehension strategies. Teachers traditionally refer to students with hyperlexia as "word callers."[15] Students for whom English is not their first language often function like hyperlexics until their knowledge of the English language improves.

Mixed/Combined type. The third type refers to students with difficulties in both language comprehension and word-level reading. Such students are usually the weakest readers.

Compensator Type. Compensators are students whose reading comprehension is well below their language comprehension due to weaknesses in word reading. Compensators are often overlooked because they are very bright and compensate for their poor word reading. They may display average reading comprehension but would have stronger reading comprehension if not for their struggles with word reading (see Chapter 13 for more).

Notice how word-level reading difficulties are central to three of the four types of reading problems (dyslexia, mixed, compensator). Because phoneme awareness is the most common source of these word-level reading difficulties, it follows that phoneme awareness training can help the vast majority of students with reading difficulties.

It is generally easier for teachers to address word-level reading difficulties than language difficulties.[16] An important goal in dealing with the mixed/combined type of reading difficulty is to strengthen word reading skills. If these students struggle with comprehension, the last thing we want them to be doing is using mental effort and energy to figure out the words. As these students develop more automatic word recognition, they can place more focus on comprehension.

As mentioned, the most common source of reading difficulties is poor phoneme awareness. Hundreds of studies have highlighted its importance in reading development. Many studies have shown that training phoneme awareness can improve the reading progress of weak readers. More

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[15]A mistaken notion has circulated in educational circles that "word callers" are the result of teaching phonics or not emphasizing meaning in reading instruction. On the contrary, students taught via phonics in first and second grade have better reading comprehension at the end of second grade than students taught with meaning-based approaches. This is because phonics-taught students can read more words and thus better understand what they read. By fourth grade, these reading comprehension differences usually even out. However, the point is that phonics does *not* produce "word callers." Rather, weak language skills are responsible for hyperlexia.

[16]Some excellent resources for teachers to help with language development include: 1) *Bringing Words to Life: Robust Vocabulary Instruction* (2013) by I. Beck, M. McKeown and L. Kucan; 2) *Developing Reading Comprehension* by Clarke, P. J., Truelove, E., Hulme, C., & Snowling, M. J. (2014); and *Developing Language and Literacy: Effective Interventions in the Early Years* by J. M. Carroll, C. Bowyer-Crane, C. Hulme, and M. J. Snowling (2011).

importantly, studies have shown time and time again that early training of phonological awareness in kindergarten and first grade prevents many reading difficulties from happening in the first place. The next two chapters will explore the nature of phonological and phoneme awareness. Chapter 4 will answer the question about why a phonological/auditory skill like phoneme awareness is so important to word recognition.

Summary and Looking Ahead

Far too many students are behind grade level in reading. In the last few decades, scientists have learned a great deal about how children learn to read and why some children have reading problems. Most of this information is found in inaccessible scientific research journals. One of the most significant findings is *orthographic mapping,* which is the process we use to efficiently store words for permanent retrieval. Phoneme awareness is one of the most important skills necessary for orthographic mapping (Chapter 4). There exists a staggering amount of research on reading acquisition and reading difficulties. In this manual, some of the most relevant aspects of this research are presented in an easy-to-understand manner. The second half of this manual is a comprehensive training program for phonological awareness skills and permanent word storage.

The next page illustrates the major components of the *Equipped for Reading Success* approach. Each of these will be presented in later chapters. The chapters and appendices that address each component are included in the illustration. Also included is an approximate timeline for each of the *Equipped for Reading Success* components. You many want to refer back to this graphic overview as you work your way through the manual.

Equipped for Reading Success
– The Major Components –

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GOAL:
Efficient Acquisition of a
Large Sight Vocabulary

Rapid, accurate, automatic, and
effortless word recognition skills

- Improved word reading fluency
- Improved reading comprehension
- Improved spelling/writing
- Improved content area work
- Improved self-confidence
- Improved school experience
- Improved future opportunities

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Phoneme awareness
Necessary for efficient sight-word storage and phonics
Chapters 2-11; One Minute Activities, Appendices A, B, C, D & I

Letter-Sound Skills
Necessary for sight-word storage and sounding-out new words
Chapter 4, 12; Appendices E, F, & G

Word-Study Approaches
Assists in permanent word storage
Chapter 6; Appendices D, F, G, & H

Developmental Reading Approach
Easiest route to reading; prevents reading difficulties
Chapter 5

Assessment
Catch difficulties early; monitor progress
Chapter 11; Appendices A, C, & I

Remediation
More intensive instructional opportunities
Chapter 6, 13, & others; Appendices A, D & others

Equipped for Reading Success
– The Sequence –

General Education:

Kindergarten	1ˢᵗ Grade	2ⁿᵈ Grade	3ʳᵈ Grade	4ᵗʰ to 12ᵗʰ

- Developmental Reading
- Word-Study Techniques
- Letter-Sound Skills
- Phonological Awareness
- Assessment
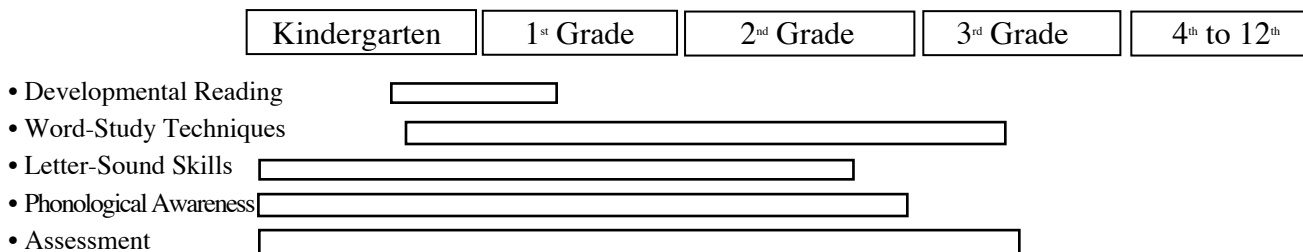
Struggling Students (general education remediation or special education remediation):

- Developmental Reading — when ready
- Phonological Awareness — until mastered
- Letter-Sound Skills — until mastered
- Word-Study Techniques — until student is a skilled reader
- Assessment — until student is a skilled reader
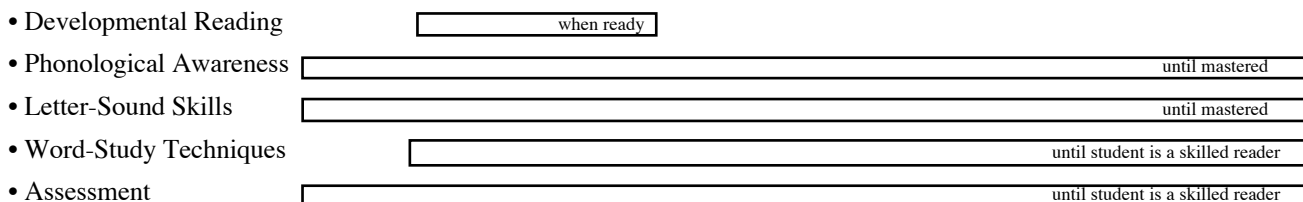
CHAPTER 3

LEVELS OF
PHONOLOGICAL AWARENESS

Children learn to sit before they walk, and walk before they run. Similarly, phonological awareness develops in stages. Children who struggle in reading require careful attention to the proper sequence of skills in order for them to make the most progress. Researchers have discovered three very general phonological awareness levels;[1] the *syllable level*, the *onset-rime level*, and the *phoneme level*. The chart below gives a general idea of when each phase develops. Notice the difference between average readers and struggling readers.

	When Skills are Acquired or Mastered		
Phonological Awareness Level	*Typically Achieving Readers*	*Low Achieving Readers*	*Equipped for Reading Success Program Levels*
1) SYLLABLE LEVEL (Also Alliteration & Rhyming)	Pre-K to Kindergarten	Pre-K to Second Grade	D, E
2) ONSET-RIME LEVEL	Early Kindergarten to Early First Grade	Late Kindergarten to Second Grade	F, G
3) BASIC PHONEME LEVEL	Mid First Grade to Early Second Grade	Early Second to Fourth or never	H, I, J, K, L, M, N
ADVANCED PHONEME LEVEL	Late First Grade to Third Grade	Often Never	H, I, J, K, L, M, N

Syllable Level (also Alliteration and Rhyming)

Through word games, nursery rhymes or children's books, preschoolers learn word play, including rhyming and alliteration.[2] Also, children learn to separate (or "segment") syllables. For example, Kevin learns his name has two parts (Ke-vin).[3]

Syllable segmentation, rhyming, and alliteration are foundational for the higher-level phonological awareness skills. They are the first opportunities for children to focus on the sounds we make when we say words. When a young child hears a word like *table*, he or she thinks about what a table *is*, not about the *sound* we make when we say "table." When children are exposed to word play, such as alliteration and rhyming, they begin to focus attention on the

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[1]In the last few years, some researchers have reopened the issue of the proper order of phonological awareness development. It has become a very complex issue but has little direct bearing on what I am presenting here.

[2]Alliteration uses words that begin with the same sound/letter (e.g., Dr. Seuss' "Aunt Annie's Alligator, A a a").

[3]No direct exercises for rhyming or alliteration are provided at this earliest level, but levels F & G tap into the same skills needed for alliteration and rhyming. Teachers can add supplemental rhyming and alliteration activities early on, but given the structure of this program, that is not necessary for phonological awareness development.

oral properties of words. To rhyme, alliterate, or do syllable segmentation, children must think about the sounds we make when we say words, and not the meanings of the words. This is their entry into phonological awareness.

Onset-Rime Level

The onset-rime level represents the first time children actually break apart a syllable. It is an important step on the way toward focusing on phonemes, which is the next level. *Rime* is not a misspelling of the word *rhyme*. It is an alternative spelling of rhyme tucked away in Webster's dictionary and used by reading researchers in a specific way.

Onset. The onset of a syllable refers to any consonant sounds that come *before* the vowel in that syllable. For example, in *sat*, *them*, and *spring*, the onsets are *s–*, *th–*, and *spr–*. Some syllables/words have no onsets, such as *out*, *am*, and *ice* (there are no consonants before the vowel).

Rime. The rime is the part of the syllable that includes the vowel sound and any consonant sounds that follow the vowel sound, within that syllable. Let's consider again *sat*, *them*, and *spring*. The rimes are *–at*, *–em*, and *–ing*. Words like *we*, *go*, and *see* have only vowel sounds for rimes, *–e*, *–o*, and *–ee*. They have no consonant sounds in their rimes. The rime can involve more than one vowel if it is part of the same syllable. For example, in *food*, *boat*, and *read*, the rime units are *–ood*, *–oat*, and *–ead*. In silent-e words such as *made*, *like* and *rope*, the *–ade*, *–ike*, and *–ope* are the rimes.

In printed words, the rime is equivalent to what is sometimes called a *phonogram*.[4] Researchers use the word *rime* to refer to both the oral rime and the printed rime. For clarity, I will use the word *rime* to refer to the *oral* rime, and *rime unit* to refer to the *printed* rime.

Written and oral rimes do not always match up. For example, the words *have* and *save* share the same rime unit (*–ave)*, but they don't rhyme. *White* and *right* rhyme, but have different rime units (*–ite* and *–ight)*. At the *onset-rime* level of phonological awareness, a rime is a rime regardless of the spelling pattern or whether it rhymes with anything else. Consider these examples of onsets and rimes:

Type of ONSET	WORD	ONSET		WORD	ONSET
Single phoneme onset	*cat*	c		*sit*	s
Two phoneme blend onset	*clap*	cl		*flip*	fl
Three phoneme blend onset	*spring*	spr		*splash*	spl
No onset	*out*	(none)		*in*	(none)
Type of RIME	WORD	RIME		WORD	RIME
Single vowel, single consonant rime	*pen*	en		*sat*	at
Rimes with phoneme blends	*bent*	ent		*first*	irst
Vowel digraph or silent *e* rime	*boat*	oat		*make*	ake
No consonant sound in rime	*tree*	ee		*so*	o

The onset-rime level of phonological awareness goes beyond the syllable level because the child has to break apart the syllable. For example, in the word *top*, a student can separate the syllable at the onset-rime juncture: *t-op*. Even though the *t* is a phoneme, attending to the first phoneme in a word is easier than attending to phonemes in the middle or at the end of a word, so researchers distinguish between the onset-rime and the phoneme level.

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[4]In printed words, phonograms can represent any one of many word parts (prefixes, suffixes, roots), but this term has also been used for the rime unit. The ARL program used the term *Decoding Key*.

Onsets and rimes can only be understood *within* a given syllable. Not every syllable has an onset, but *every syllable has a rime*. This is because every syllable has a vowel.[5] Thus, two-syllable words have two rimes and three syllable words have three rimes, etc. For example, let's divide the word *carpenter* into onsets and rimes. The first syllable is /car/. The onset in this syllable is /k/, and the rime is /ar/. The second syllable in *carpenter* is /pen/. The onset is /p/, and the rime is /en/. The last syllable is /ter/. The onset is /t/, and the rime is /er/.

Phoneme Level

The third level of phonological awareness is the *phoneme level*, hence the term *phoneme awareness*. To be a good reader, students must master phoneme-level skills. It is not enough to master syllable-level and onset-rime level skills. Those levels are foundational to phoneme awareness. However, *unless students master the skills at the phoneme level, you will not see the desired effect on reading*. I have evaluated hundreds of students who had good syllable and onset-rime skills yet were weak readers because they had not mastered phoneme-level skills. Phoneme awareness is the most difficult type of the three broad levels of phonological awareness, and can be subdivided into basic and advanced phoneme levels (see Chapter 7).

How Much Phoneme Awareness is Necessary to Be a Fluent Reader?

To be a fluent reader, a student must be thoroughly competent at the phoneme level.[6] Average and above average readers demonstrate automatic, phoneme-level manipulation skills by second grade to fourth grade, even if they have never been trained in phoneme awareness. Students who struggle with reading tend to get "stuck" at the onset-rime level or the basic phoneme levels. This represents a mid first grade to early second grade level of phonological awareness development. These students are expected to progress through school with a first to second grade level of phonological awareness. To get "unstuck," these children will require direct, conscientious phoneme awareness training. Once they have mastered phoneme-level skills, these children may require ongoing reinforcement of their skills.

Unfortunately, most phonological awareness programs focus on phoneme *segmentation*. This is easier than phoneme *manipulation*. Phoneme segmentation is typically mastered by late first grade. Phoneme *manipulation* taps int a more advanced level of phoneme awareness. It involves deleting or substituting phonemes in words (see Chapter 7) and usually is not full mastered until about third grade. I have evaluated many poor readers who mastered phoneme *segmentation* but not phoneme *manipulation*. If we only use segmentation to assess phoneme awareness, the teacher or evaluator might mistakenly assume that a poor reader has sufficient phoneme skills for reading when he does not. In this situation, the teacher is left in the dark as to why the student is not progressing in reading and the child may not be given the phoneme awareness training he desperately needs. Many otherwise positive efforts at training phoneme awareness have relied too heavily on segmentation (see Chapter 7). This is why phoneme manipulation forms the basis of the assessment and training in this manual.

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[5]Not every syllable has one of the usual five written vowels. For example, the words *by* and *sky* use *y* as a vowel.

[6]More precisely, one must display *phonemic proficiency*, which is best demonstrated via instant responses to phoneme deletion and/or substitution tasks (see Chapter 7).

Program Levels of the *Equipped for Reading Success*
Phonological Awareness Training Program

The labeling system for the levels in the *Equipped for Reading Success* program (Level D, Level E, etc.) is coordinated with the Rosner and the McInnis/ARL programs. Appendix B provides a chart that cross-references these three programs. Levels A through C are not typically needed and are not addressed here. They involve matching and one-to-one counting.

With years of experience in many school districts, McInnis's ARL Phonological Processing Program has refined the three research-based levels of syllable, onset-rime, and phoneme. Rosner and McInnis discovered that not all syllable level tasks are created equal. For example, it is far easier to delete the first syllable of a two syllable, compound word (e.g., *cowboy* to *boy;* Level D1) than it is to delete the first syllable from a three syllable word when that first syllable is the stressed syllable (e.g., *holiday* to *iday;* Level E4). Likewise, some phoneme-level tasks are more difficult than other phoneme tasks. For instance, *deleting* a phoneme from the end of a word (e.g., *seen* to *see;* Level I) is much easier than *substituting* a phoneme at the end of the word (e.g., *beat* to *beam;* Level L). Rosner and McInnis reasoned that lumping the difficult and easy items together created an unnecessary challenge for children, especially those with learning problems. They preferred a smooth transition from easiest types of words and manipulations to the most difficult. McInnis' ARL program, to my knowledge, was the only program to train phonological awareness in a more fine-grained and developmentally sequenced manner. This sequencing was based upon extensive field trials in dozens of school districts over three decades. *Equipped for Reading Success* smoothes out McInnis' levels even further to create a program that has no big hurdles for students. As they move from one level to the next, there is no place for any student to "get stuck."[7]

Based upon 1) McInnis' three decades of phonological awareness training, 2) several years of field testing I have done, and 3) emerging research over the last 10-15 years, I have provided sub-groups within the syllable level and the phoneme level. The syllable level is divided into basic and advanced types of syllable manipulation. The phoneme level is likewise divided into basic and advanced. Recognizing that there are easier and harder tasks within the syllable and phoneme levels helps insure that children's skills can develop without getting "stuck" at any level. If children ever seem to get stuck, Chapters 7 through 9 present ways to prepare students for the next level and are virtually guaranteed to get them "unstuck." Below is an overview of the program levels in the *Equipped for Reading Success* manual's comprehensive phonological

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[7]An exception was made to maintain the three levels of syllable, onset-rime, and phoneme highlighte by the National Reading Panel. Some syllable-level tasks (E3, E4, & E5) are actually harder than onset-rime tasks (F, G). Appendix B indicates that McInnis' Level I got moved back to become E5 in this program to keep it within the syllable level. But E5 (McInnis' Level I) is more difficult than F and G so it belongs right where McInnis placed it (E4 is also more difficult than F and G). I feared that as more teachers became aware of the three research-based levels of syllable, onset-rime, and phoneme, they may assume I was not following the research because some syllable activities would be *after* onset-rime activities. Based on that potential "social pressure," E3-E5 are before F & G, even though they are harder than F & G. However, the introduction to the advanced syllable section (E3, E4 E5) indicates that those levels should be taught after or alongside the training of Levels F and G.

training program. Then the following two pages give a more extensive overview so you can readily see the entire program from a "bird's eye view." Also, Appendix A provides a similar overview in the form of a student progress chart for phonological awareness development.

Phonological Awareness Level	*Program Level*
SYLLABLE LEVELS (D and E)	
Basic Syllable Levels	D1, D2; E1, E2
Advanced Syllable Levels	E3, E4, E5
ONSET-RIME LEVELS (F and G)	
Onset-Rime Levels	F1, F2; G1, G2
PHONEME LEVELS (H through N)	
Basic Phoneme Levels	H1, H2; I1, I2
Advanced Phoneme Levels	J; K1, K2; L1, L2; M1, M2
Optional Advanced Phoneme Levels	N1, N2

CHAPTER 5

TEACHING READING
IN LIGHT OF ORTHOGRAPHIC MAPPING

The previous chapter described how we permanently store (i.e., learn) words. Now that scientists have a basic understanding of how that process works, we are in a position to take a fresh look at how we teach reading. This may involve significant changes. We cannot continue with our current approaches because doing so virtually guarantees that we will continue to have about 30% of our students reading substantially below grade level.

What needs to change? The following list of recommendations is based on our understanding of orthographic mapping. We will look at each one in turn:

- Train the prerequisite skills for orthographic mapping: letter-sound skills, phoneme awareness to the level of phonemic proficiency, and word study.
- Teach reading in a developmental sequence that 1) is consistent with the sequence of phonological awareness development, and 2) is consistent with what we know about the development of how children efficiently build a sight word vocabulary.
- Avoid or postpone teaching word-reading strategies that do not promote orthographic mapping.
- Teach and use specific word-study strategies that directly promote or reinforce orthographic mapping (i.e., word memory).

Train the Prerequisite Skills for Mapping

The skills necessary for mapping are letter-sound proficiency, phonemic proficiency, and word study. *Letter-sound proficiency* refers to automatic and effortless recognition of consonants, vowels, blends, and digraphs. *Phoneme awareness* training is described in detail in Chapters 7-11. *Word study* is the unconscious or conscious mental habit of connecting what is heard in the mind (phoneme awareness) with what is seen on the page (letter-sound skills). Unless children have phonemic proficiency and letter-sound proficiency, word study will be inefficient.

Phoneme awareness should *not* be trained as an isolated skill. Unless students are able to *apply* their phoneme awareness skills to the process of mapping sounds to letters, you will not see the benefits of phoneme awareness training. This is especially true of students who develop phoneme awareness skills later as a result of remedial instruction. These students need to "re-learn" how to approach words in a way that will make those words memorable. Words will become more memorable by applying their newly developed phoneme awareness skills to those

CHAPTER 6

WORD-STUDY ACTIVITIES THAT
PROMOTE ORTHOGRAPHIC MAPPING

In the previous chapter, some of the broader educational recommendations based on our understanding of orthographic mapping. These include: 1) training phonological awareness and letter-sound skills, 2) teaching reading in a developmentally appropriate way, and 3) postponing reading approaches that do not promote mapping. This chapter provides a toolkit full of strategies to train, support, and highlight the word-study aspect of orthographic mapping. This is the chapter that provides the proverbial "bag of tricks."

The strategies in this chapter are consistent with orthographic mapping (see Chapter 4). If you do not understand orthographic mapping, some of these strategies will not make much sense to you. But if you understand mapping, the point of all these interventions will be clear.

These strategies also assume that students will have some basic phoneme-level skills. To profit best from this chapter students should have 1) at least mastered Levels H, I, J, in the program, 2) can segment phonemes,[1] 3) are making progress on Levels K, L, M, and 4) have developed good letter-sound skills (see Chapter 12). *If any of these are not the case, then many of the strategies in this chapter may not work very well.*

Activities That Promote Mapping

When children are involved in various literacy activities, teachers and parents should point out the relationship between what students hear in spoken words (i.e., the phonemes), and how the order of the letters matches up with the order of those oral phonemes. Many of the following methods should be used routinely for beginning reading instruction. Right from the start, we want students to become efficient orthographic mappers, which is the key to building a large sight vocabulary. However, techniques described in this chapter should also be used for remedial efforts. Older students who have developed inefficient or compensating strategies must "undo" bad habits and "relearn" how to approach words. These techniques are divided into 1) strategies to use for beginning reading and remedial reading and 2) strategies for remedial reading only. This second group includes some unusual or "extreme" strategies that are unnecessary for beginning reading and should be reserved for helping older students (past second grade) break their compensating habits. Appendix D lists and summarizes each technique to provide a quick reference to assist in lesson planning.

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[1]See the next chapter on the distinction between segmentation and phonological manipulation. After reading the next chapter, this assumption should be quite clear.

CHAPTER 7

ONE MINUTE ACTIVITIES
AND OTHER PHONOLOGICAL
AWARENESS TASKS

The preceding chapters show that phonemic proficiency is central to developing a large sight vocabulary. The following chapters teach how to train phoneme awareness. There are several different types of phonological awareness *tasks* available that have been used for assessment and instruction. Which is the best? Or, should we use all of them? This chapter introduces the most common phonological awareness tasks that have been used for assessment and instruction. It explains why the *Equipped for Reading Success* program uses *phonological manipulation* for the assessment, instruction, and remediation of phonological awareness.

Types of Phonological Awareness Tasks

Researchers have used several types of tasks to assess the concept of phonological awareness, including *rhyming, alliteration, segmentation, blending, categorization, isolation,* and *manipulation*. Studies have shown that all of these tasks are tapping into a single, underlying phonological awareness skill. In other words, these tasks do not assess separate phonological awareness skills. This is exciting news because it means that we do not have to train many separate phonological awareness skills, as some programs do. With that said, let's look at the ways in which phonological awareness has been tested.

Oral Blending/Phonological Blending

Phonological blending is essential for sounding out words. When a student sees a new word, she will give a sound for each letter and *blend* those sounds to read the word. Blending puts sounds together while phonological analysis tasks (segmentation, manipulation, etc.) pull words apart. Blending is required for phonic decoding while analysis is required for orthographic mapping and spelling. Most weak readers eventually develop blending skills without developing phoneme analysis skills. I have tested many poor readers with normal blending skills but poor phoneme analysis skills. A blending task should never be the only assessment of phonological awareness. When a student does well on blending and poorly on an analysis task, he has poor phonological awareness. Difficulties with analysis *and* blending suggest more serious phonological difficulties.

Chapter 11

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Assessment of

Phonological Awareness:

The Phonological Awareness Screening Test
(PAST)

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The *Equipped for Reading Success* program provides three ways to evaluate phonological awareness skills, two informal and one formal.

1) The simplest way to evaluate phonological awareness is to note the level at which a student is working in the program. Is he or she able to do Level E3? Level H? Level K? This informal assessment tells you how far along in the program a student has progressed. It is important to notice a student's *speed* when doing One Minute Activities to see if he or she is at the knowledge stage or the automatic stage.

2) If you want a quick assessment of a student's skill, you can simply give half of a One Minute Activity (i.e., five items) from any given level. How well the student does lets you know how well he or she is progressing. Also pay close attention to speed of response.

3) Use the formalized *Phonological Awareness Screening Test* (PAST)[1] in Appendix C. This chapter provides detailed instructions for administering the PAST. The PAST is best used with students as part of a whole class screening in K-2 or a formal reading assessment. A comprehensive reading assessment should include tests of working memory, rapid automatized naming, as well as phonological awareness and oral blending.[2] All of these lower-level linguistic skills are assessed on the *Comprehensive Test of Phonological Processing-Second Edition* (CTOPP-2),[3] which I strongly recommend. The CTOPP-2 should be used alongside the PAST. I have found the PAST and the *Elision* subtest, which is the CTOPP-2's phonological awareness test, tend to yield similar results. However, in the cases where they differ, the PAST is usually (but not always) more consistent with a student's reading skill (i.e., weak PAST, weak reading, strong PAST, better reading).

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[1] An Internet search will turn up another test that uses the acronym PAST called the *Phonological Awareness Skills Test*. This test samples from the various classical tasks like rhyming, segmentation, etc. Like most other phonological awareness tests, it does not provide a timing element.

[2] These tests would be, of course, in addition to tests of context-free word identification, nonsense word reading, and perhaps reading comprehension and language/listening comprehension.

[3] As mentioned in an earlier chapter, blending may be average in weak readers with poor phonemic analysis skills. Thus, the CTOPP-2's *Blending Words* subtest must be interpreted with caution. If it is average, it does not rule out phonological awareness difficulties. The *Blending Words, Elision* (manipulation/deletion) and *Phoneme Isolation* subtests all are combined on the CTOPP-2 for an overall Phonological Awareness Composite. Be wary of that composite score if Blending Words is average and the Elision and/or Phoneme Isolation are weak.

Instructions for the
Phonological Awareness Screening Test (PAST)

The *Phonological Awareness Screening Test* (PAST) can be found in Appendix C. There are four forms; A, B, C, and D. This allows teachers to do a formal assessment a few times a year to track a student's progress.

There is a "history" behind the title "PAST." First, PAST stands for P̲honological A̲wareness S̲creening T̲est. Second, the acronym acknowledges the work of others in the *past*. The PAST originated as the *Auditory Analysis Test* (AAT) of Rosner & Simon (*Journal of Learning Disabilities*, 1971). Dr. Philip J. McInnis revised the AAT by adding substitution items (the AAT only used deletion items) and adding levels to make it more developmentally appropriate. His version was first called the *Language Processing Assessment* (LPA) and then the *Phonological Processing Test* (PPT). Since 2003, I have used a modified, updated version of this time-tested assessment.[4] Thus, while the PAST is my "version" of the test, it is based upon the work of my predecessors (hence, the "PAST"*).*

General Principles of Administration

Do not administer the PAST unless you have 1) carefully read the directions in this chapter; 2) read the section in Chapter 12 that covers pronouncing phonemes in isolation; and 3) practiced on someone, preferably with feedback before testing a student, preferably feedback from a school psychologist or speech pathologist. Those professions receive formal training in individualized testing.

No Practice Items

There are no practice items. Feedback is given for every incorrect item (see below), so incorrect items function like practice items. Follow the sample line at the beginning of each level. All items at a given level are administered the same way. *Delete or substitute the sound represented by the letter or letters in the parentheses*. With *cow(boy),* "boy" gets deleted.

Proper Pronunciation of Sounds

When giving directions for Levels F through M, use letter *sounds*, not letter names. When you say "change /a/ to /i/," you say the *sound* made by the letter, not the name of the letter. The exception is with the "long" vowel sounds in Level J. Long vowel sounds are represented by uppercase letters in brackets (i.e., /A/). These long vowel sounds match the letter name (e.g., the *a* in words like *cake, tame*, or *made*).

Do not add an "uh" sound when pronouncing consonants (e.g., /m/ is pronounced *mmm,* not *muh*). *Proper pronunciation of sounds in isolation is essential for children to understand which*

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[4]My version 1) adds a timing element to assess automaticity; 2) adds or modifies levels to make smoother transitions (see Appendix B for program comparisons); 3) provides corrective feedback for *every* incorrect item, and 4) for Forms A, B, C, and D in Appendix C, most items are "orthographically inconsistent" to decrease the possibility of correctly responding to test items via a mental spelling strategy rather than by phonological awareness. For example, going from *gave* to *game* by exchanging an /m/ for a /v/ can occur via mental spelling while going from *both* to *boat* by exchanging a /t/ for a /th/ does not as easily yield to a mental spelling strategy.

phoneme you are asking them to manipulate. For help with pronunciation when administering the PAST, see Chapter 12 and Appendix E.

The Assessment of Automaticity

All items are timed. When administering an item, immediately upon finishing speaking, count in your head "one thousand *one*, one thousand *two*." Use a stop watch or sweep second hand at first to be sure your counting really represents two seconds. If the student responds correctly before you get to the word *two* in the phrase "one thousand two," he or she receives credit for an automatic response. Put an "X" in the blank next to the word to indicate the response was automatic. If the student answers correctly, but after the two second count, mark a "1" next to that item. Incorrect items are marked with a zero (0). See Figure 11.1 below.

When doing the mental count, continue counting until the student responds. If you reach "one thousand five" and the student has not responded, repeat the same item and resume the mental counting, starting with "one thousand one." If the student responds correctly within five seconds of this second chance, score the item as correct (i.e., a "1"). However, *an automatic score can only occur within the first two seconds of the first try*. A second chance is given because students sometimes forget what you asked. Also, if a student asks you to repeat the item, do so, but repeated items cannot be scored as automatic, only as correct or incorrect. If the student does not respond after the second five-second count, score the item as incorrect and demonstrate the correct response for that item (see below on providing feedback).

If you mis-speak a word, excuse yourself, skip the item, and go on to the next one, so long as it was not the last item at that level. Go back to the item you spoiled before going on to the next level and score normally (i.e., they can receive an automatic score if they respond in less than two seconds). If this occurs on the last item of a level, repeat that item immediately and use your best judgment about scoring.

Occasionally, a student will respond to the previous item. For example, you have the student go from *sit* to *sat* (Level J). On the next item, you ask the student to go from *hid* to *had*, but instead of *had*, the student says *sad*, accidentally carrying over sounds from the previous item. This may not be the result of a phonological awareness problem, but may result from an attentional lapse. If you judge that a student has carried something over from the previous example, re-administer the item. However, the student cannot receive an automatic score on a re-administered item, only correct (1) or incorrect (0).

FIGURE 11.1

SAMPLE SCORING

Automatic responding typically takes about a second or less, so a two second count is generous. Therefore, only give automatic credit if students have begun a correct response by the time you have mentally said *two* in the silently phrase "one thousand *two*."

Repeating an Item

If a student seems confused, or seems to have a lapse in attention, it is okay to repeat an item. However, when you repeat an item, that item cannot be scored as automatic. Students can only receive a score of correct (1) or incorrect (0).

Pacing

One important reason to be thoroughly familiar with the administration procedures and to be well practiced with the test beforehand is *pacing*. It is important to administer the PAST at a good pace to keep things moving. A moderately quick pacing prevents lapses of attention, boredom, or prevents you from unnecessarily burdening a student's working memory.

Providing Feedback

A unique feature of the PAST is that students receive corrective feedback for every incorrect item. Students are not going to develop phonological awareness skills in the 4 to 8 minutes it takes to administer this test. Yet they may get items incorrect because they are confused about the task expectations given that phonological awareness tests are unusual for most students. Thus, give feedback for *every* incorrect response. That lets them know precisely what you want.

The standard correction is provided on the test form for each level. No further demonstration or explanation is permitted (especially, no visual cues). Correct every incorrect item, even if it is the last item at a given level. Positive feedback is permitted ("that's right!"), especially if a child responds tentatively. *However,*

1) Do *not* teach any item or level. This is a test, not a teaching session. Although spoken feedback is provided, no teaching, manipulatives, or explanations are allowed.

2) *Never* say anything about the *position* of the sound within the word because this is a big part of what you are testing. For example, never say anything like "see how I switched the /b/ to a /t/ at the beginning of the word?" An important part of phonological awareness is being able to determine where a sound is located within a word. Saying anything about the position of the sound is like giving the student the correct answer.

Routing Procedure to Speed Administration

Students are not administered all 52 PAST items. For younger students, many of the later items are too difficult and there is a discontinue rule (described below). For more skilled students, it would be unnecessarily tedious to administer all of the easy items. To keep the test a reasonable length, there is a routing procedure, which works differently at each of the *syllable, onset-rime,* and *phoneme* levels.

Syllable Levels (D1 to E3)

- *Everyone* who is administered the PAST, including older students and adults, start at Level D1. Explain to students that this "word game" starts out very easy. The easy ones help students understand the nature of the task without ever having to explain the nature of the task. There are no explanations or practice items when administering the PAST.

- For kindergarteners and potentially at-risk beginning first graders, give every item at levels D and E and follow the discontinue rule, below.

- For most first graders and all students beyond first grade, if the first item of D1 is responded to automatically (i.e., 2 seconds or less), skip down to the first item of D2. If that is automatic, skip to first item of E2, then E3. When you score later, if the first D1 through E3 items are automatic, score any un-administered items at those levels as automatic (thus a 3/3 at that level).

- However, if any item is either 1) incorrect, or 2) correct but not automatic (i.e., correct response after 2 seconds), administer *all* items at that level and score normally. For example, if the first D2 item is correct but not automatic, administer the other D2 items. However, the routing procedure resumes with E2. If the first item in E2 is automatic, do not administer the other E2 items and score those un-administered items as automatic.[5]

Onset-Rime Levels (F & G)

For kindergarten to second grade:
- If the first three F or G items are automatic, skip the final two items at that level and score them as automatic.
- If any of the first three F or G items are incorrect, or correct but not automatic, administer all five items at that specific level (i.e., F or G) and score normally.

For third grade through adults:
- Use the same general procedure as with the kindergarten through second graders except only the first *two* items need to be automatic before skipping on to the next level.

Phoneme Levels (H to M)

- For Levels H through M, give *all* items at each level. Continue administering until the discontinue rule is reached or you come to the end of the test.

Discontinue Rule

If the combined "correct" score on two levels in a row is 0, 1 or 2 out of 10, discontinue the test. Consider all items in the levels beyond the discontinue level as incorrect. For example, if a student gets only two items at Level I and none at level J (thus 2/10 across the two levels), discontinue the test. Do not administer K, L, or M. All un-administered levels are scored 0.

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[5]The reasoning is that if students can do a higher syllable level (E2 or E3), they likely can do the easier ones, but were incorrect or not automatic due to the novelty of the task or lapse in attention rather than a lack of phonological awareness. It is not unusual for a student to get one of these earlier items incorrect or correct but not automatically and then go on and display automatic responding at higher levels. In such cases, administering all subsequent syllable-level items after an early error or slow response is unnecessarily tedious. If they have an automatic response to the first item at any given syllable level, do not administer any more at that level and score unadministered items as automatic, even if they had an incorrect or slow response on an easier syllable level.

Scoring the PAST

Passing a Level

A level is considered passed if either all items or all items except one are correct (e.g., 4 out of 5, or 2 out of 3 for the syllable levels). A level is considered automatic if all or all but one of the items at that level were responded to automatically. Levels with 3 out of 5 or fewer are not considered passed and represent a level that should receive instructional attention. Keep in mind, each level yields two scores, a correct score and an automatic score. Students commonly pass a level with their correct score but not with their automatic score. These differences are preserved for the total scoring (see Figure 11.2 and *The Total Scores* section below). Only levels passed at the automatic level do not require instructional attention.

Item Scoring

It should be clear by now that items are scored in one of three ways:

1) Incorrect (Score = 0)

2) Correct but not automatic (Score = 1). The student responds in more than two seconds.

3) Automatic (Score = X) The student responds in two seconds or less.

At each level, count every score of 1 and X and put the total in the "correct" column on the right. In the "automatic" column, only include the items with Xs for that level (see Figure 11.1 above for an illustration).

The Total Scores

As mentioned, students receive two scores at each level, a correct score and an automatic score. Transfer the totals from the right hand columns to the top of the first page of the test. There are two sides to this. First, the student receives a score indicating how many were correct and how many were automatic at the *syllable, onset-rime,* and *phoneme* levels. Second, the other side gives the highest level passed. Remember that a level is passed as *correct* if at least 4 out of 5 at that level are correct. The exception to this are the syllable levels which require at least 2 out of 3 to be considered passing. A level is considered *automatic* if at least 4 out of 5 items were automatic (or all 3 out of 3 for the syllable levels). For most children, the highest correct level will be higher than his or her highest automatic level (see Figure 11.2 for an illustration). It is also important to note any levels not passed that were below the highest level passed.

RESULTS:

	Correct	Automatic		
Basic Syllable	12 /12	10 /12	Highest Correct Level:	J
Onset-Rime	10 /10	10 /10	(Levels not passed below the highest correct level)	—
Basic Phoneme	8 /10	4 /10		
Advanced Phoneme	6 /20	2 /20	Highest Automatic Level:	I
Test Total	34 /52	26 /52	(Non-automatic levels below highest automatic level)	E, H

FIGURE 11.2

SAMPLE OF SCORING RESULTS

Interpreting the *PAST*

The PAST correlates powerfully with reading but is not a normed test. However, the following is a guide to interpreting the results of the PAST based on 1) several studies that did not use the PAST that show when children developmentally can do specific phonological manipulations; 2) Dr. Philip McInnis' 35 years using very similar levels on his LPA/PPT; 3) my 14 years working with the PAST; and 4) several studies I have directly done on the PAST.

Grade Level	Typically Achieving Readers	Low Achieving Readers
Mid Kindergarten	D1-E2 sometimes higher	D1-D2 or none correct at all
Late Kindergarten	D1-E2, F, G, sometimes higher	D1-D2; E2 or lower
Mid First Grade	E3, F, G, I or higher	E2, F, G or lower
Late First Grade	F, G, H, I, J	F, G, I, or lower
Mid Second Grade	H, I, J or higher	F, G, H, I, or lower
Late Second/Early Third Grade	H to M mostly automatic	H, I, maybe J or lower
Mid Third Grade	All levels, mostly automatic	Many levels correct, I to M mostly not automatic
Fourth Grade to Adulthood	All levels automatic	Most levels correct, but J to M not all automatic

TABLE 11.1

APPROXIMATE DEVELOPMENTAL LEVELS

If a student's performance matches the shaded *Low Achieving Readers* column, it suggests that phonological awareness may be a concern. If a student's level is lower than is listed in that column, then a phonological awareness problem is very likely. In either case, those students will require training beyond what they may be receiving in whole-class instruction.

Notice in Table 11.1 how small the differences can be, especially early on (i.e., K-1). Except for obvious cases of very low performance, the differences may be very slight. This is why all kids should get whole class or small group phonological awareness training in kindergarten and first grade. Next, note that over time, typically readers start to pull away from those with reading difficulties. Automaticity becomes a bigger factor with time, especially after second grade. After third grade, lack of automaticity at any level may indicate that a phonological awareness difficulty may be present.

Do not be surprised by inconsistent performance across some levels. An individual student may struggle with an easier level and yet pass a higher level. This is because different levels involve different types of manipulations. For example, H and K involve splitting initial blends. If a student struggles with sounds in blends, he may not pass H, but may pass J, which does not involve blends. Students who struggle with awareness of ending sounds may do poorly with Level I and L but do well with H, J, and K. While based upon group data I have gathered, the leveling system is quite accurately laid out, for any given student there may be some inconsistencies. For anyone interested in the actual data gathered on the PAST, a website devoted to the PAST will have this data available (www.thepasttest.com).

Below is a table showing the average score out of five attained on each level of the PAST from among three first grade classes and two second grade classes from a lower middle class elementary school. The first graders were tested in December to January and the second graders from February to March. You can see there is an increasing degree of difficulty based upon a smaller average number of correct items as the test progresses. Also, with time, the gap between automatic and non automatic responses widens.

Grade Level:		Grade 1		Grade 2	
Scoring Approach:		Correct	Automatic	Correct	Automatic
Highest possible score:		5/5	5/5	5/5	5/5
Syllable	D	4.3	3.9	4.9	4.7
Levels	E	3.6	3.2	4.6	4.1
Onset-Rime	F	4.9	4.8	5.0	4.8
Levels	G	4.5	4.2	4.9	4.4
Phoneme	H	2.6	2.0	3.7	2.8
Levels	I	2.9	1.5	4.2	2.4
	J	1.6	1.0	3.8	2.1
	K	1.7	0.7	2.7	1.0
	L	2.0	0.9	2.9	1.0
	M	1.3	0.4	2.4	0.6

Note: All raw scores reported above are out of a possible 5 points. The current version of the PAST uses different scoring at the syllable levels than when these data were collected.

Table 11.2

AVERAGE RAW SCORES ON EACH LEVEL OF THE PAST

CHAPTER 12

Letter–Sound Learning

Letter-sound proficiency refers to the automatic, unconscious activation of letter-sound knowledge. This level of proficiency is foundational for both efficient phonic decoding and for permanent word storage via orthographic mapping. Equipped for Reading Success is designed to supplement existing phonics programs. Without explicit and systematic phonics instruction, the benefits of the Equipped for Reading Success program will be substantially diminished.

Letter-sound knowledge, *phonic decoding*, and *phonics* are not the same thing. Phonics is an instructional approach designed to develop letter-sound skills and phonic decoding. Letter-sound knowledge refers to the skill of instantly recognizing the sounds that go with letters, digraphs and blends. Phonic decoding is a word-reading strategy. It combines letter-sound skills with oral/phonological blending to sound out unfamiliar words:

LETTER-SOUND SKILLS	**+**	ORAL BLENDING ABILITY	**=**	PHONIC DECODING SKILLS
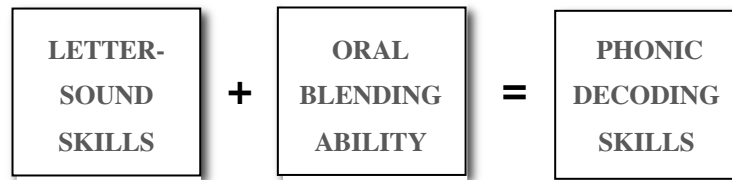
FIGURE 12.1

THE SKILLS NEEDED FOR PHONIC DECODING

Explicit and systematic phonics instruction can occur at three general levels of specificity:

Level 1 *Basic phonic decoding instruction* teaches 1) letter-sound knowledge and 2) oral blending to sound out unfamiliar words. There are no rules at this level, per se, just instruction in the sounds of letters, digraphs, and blends, along with blending. This parallels the definition of phonics instruction used by the National Reading Panel.

Level 2 *Simple-rules phonics instruction* teaches a limited set useful phonics rules (e.g., the "silent *e* rule"), often rules centered around the six syllable types of printed English.[1]

Level 3 *Detailed syllable analysis instruction.* Students learn all the exceptions to the six syllable types of printed English and then the exceptions to the exceptions.

Phonic rules are not technically necessary for orthographic mapping, only letter-sound knowledge and advanced phoneme awareness/proficiency. However, knowing basic phonic rules can be helpful to make sense when creating a "map" between oral phonemes and written letter sequences (written words). For example, the word *cake* has three sounds (/k/ /A/ /k/) but four letters. Knowing the silent e rule would presumably help with the connection forming

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[1]The six syllable types are 1) closed (*had, much*); 2) open (*be, why*); 3) silent *e (make, ride);* 4) vowel digraphs (*boat, feed*); 5) *r* controlled (*car, her*); and 6) *le* syllables (*table, idle*).

CHAPTER 13

Addressing
Compensating Students

There are some students with weak phonological awareness skills that go unnoticed. This can result in significant difficulties later on. These students perform average to low average in reading, especially in the early years, but with much effort. They are called "compensators."

Compensating students have strong language abilities but have a weakness in one of the key skills needed for reading, usually phonemic proficiency. This prevents them from attaining reading comprehension skills consistent with their language comprehension skills. Compensators' reading comprehension is typically within the average range, but well below their language skills. This means compensators rarely get "flagged" for extra help. They use their intellectual strengths to cover up their weaknesses—thus the term *compensator*.

The average-level reading comprehension performance of the compensating student comes at a great cost. For him, reading is a chore. Compensators usually do not like to read because of the effort involved. Many compensators get frustrated and discouraged about school. Compensators sometimes show behavior problems, which are likely based on work avoidance or frustration. Interestingly, based on many years experience in evaluating students for behavioral and academic problems, I have found that "compensators" are often brought to my attention because of behavioral or writing concerns, not reading concerns. When I evaluate, there is often a reading difficulty that lies behind the behavior problems and the writing problems. With these students, language skills are high, while reading is mediocre, at best. The initial impression is that the behavior problems are causing the underachievement. While this may be true in some cases, many of these students showed no behavioral difficulties in the earliest years of school. But with time, the work becomes harder. Compensators see other students out-performing them, even students who are not as bright as they are. Teachers see the behavioral difficulties and look for the reasons for the student's misbehavior. They often overlook how underachievement contributes to behavior because the compensator's achievement is within the average range.

As mentioned, written expression is also a problem for compensators. Phoneme awareness affects spelling,[1] and poor spelling drags down written expression. It is often harder for compensators to hide writing problems than it is to hide reading difficulties.

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[1]Some compensators may be decent spellers. This is often a testimonial to effort some parents put into preparing their son or daughter for spelling tests.

CHAPTER 14

Remediation, Learning Disabilities, Dyslexia, and Response to Intervention (RTI)

In this final chapter, I would like to tie up some loose ends and suggest some new, more accurate perspectives on reading difficulties and reading disabilities. I want to answer the question: How do the ideas, strategies, and materials in Equipped for Reading Success relate to students with learning disabilities? How about students with dyslexia? And what about the concepts of RTI (Response to Intervention) and MTSS (Multi-Tier System of Supports)?

Understanding the Nature of Dyslexia

To begin with, it is important to know that reading skills fall along a continuum, with highly skilled readers on one end, poor readers on the other, and most everyone else at various points in between. Unfortunately, we have given the term "dyslexia" a mystique it does not deserve. I'm referring to the popular notion that somehow dyslexia involves reversing letters and seeing things backwards. This notion misunderstands both the nature of dyslexia and the phenomenon of letter reversals and letter transpositions.

Until recently, dyslexia has not been an educational term, but rather a medical, psychological, and neuropsychological term. Dyslexia comes from the Greek *dys* ("bad") and *lexia* ("speech"; but in this usage it refers to the written form of speech, namely reading). In education, what scientists call "dyslexia," the federal special educational law calls "learning disabled in basic reading and/or reading fluency." However, as of October 2015, the U.S. Department of Education says it is now okay to use the term dyslexia in an educational context. Since then, many states have passed dyslexia legislation.

There are at least two broad definitions of dyslexia. The first is used by *Webster's II New College Dictionary* and by many reading researchers. This definition says that dyslexia is simply an "impairment of the ability to read." That's it. By this definition, anyone who is a poor word-level reader would be considered to have dyslexia. Often, researchers add the idea that dyslexia applies to individuals who generally have normal verbal language skills. Nonetheless, there is no agreement on how severe the word reading difficulty has to be.

This definition contrasts with the second definition of dyslexia, which is the "popular" definition. The popular definition of dyslexia refers to an unusual type of reading disorder in which the reader reverses and transposes letters. It is presumed that those with dyslexia "see things backwards" or have some other type of visual-perceptual problems. However, contrary to this common belief, dyslexia is not a "special type" of reading disability. Most individuals

One Minute Activities

SYLLABLE–LEVEL ACTIVITIES

LEVELS D AND E

PRESCHOOL, KINDERGARTEN, EARLY FIRST GRADE,
AND OLDER, STRUGGLING READERS

BASIC SYLLABLE PROCESSING
LEVELS D1, D2
LEVELS E1, E2

ADVANCED SYLLABLE PROCESSING

LEVELS E3, E4, AND E5

LEVEL D

D1   Delete one syllable from a two-syllable compound word

Examples: sail(boat) ⇢ sail
                 (toy)box ⇢ box

D2   Delete one syllable from a two-syllable word (not a compound word)

Examples: (ham)per ⇢ per
                 sil(ver) ⇢ sil

Special Administration Considerations for Level D

• Many of the syllable breaks are arbitrary. They are made to facilitate this activity. For example, it may be awkward at first to see a syllable break like ni-bble (one would expect nib-ble). However, we don't say two /b/ sounds, only one. Consider the words *hoping* and *hopping*. The /p/ sound is identical in both words, even though one has the letter *p* twice while the other has it once. Only the vowel is different. Thus in *ni-bble,* you are separating the syllable before the first consonant sound and including that consonant sound in the second syllable.

• In the *One Minute Activities,* pronounce the syllables that are printed in isolation exactly the way they are pronounced *in the context of the word*. Do not pronounce them the way they are printed. For example, in *(Mon)day,* "mon" is pronounced "mun," rhyming with *fun* and not "mon," rhyming with *on*. It is important to preserve the *sounds* of the syllables. *The spellings just tell you which syllable is being manipulated, and where the syllable break is for that item*. This is an oral activity and the children will not be seeing the words during One Minute Activities.

• Some of the D1 words are technically not compound words (e.g., *forecast*, *endless*). However, they appear to be phonologically closer to compounds than to the D2 non-compound words.

One Minute Activities Level D1

Say:	**(birth)day**	Now say **(birth)day**, but don't say **(birth)** ⟶	**day**
Or say:	**(birth)day**	Now say it again, but don't say **(birth)** ⟶	**day**

1. Say:				2. Say:			
	(birth)day	⟶	day		(key)board	⟶	board
	(day)time	⟶	time		(hay)stack	⟶	stack
	(air)port	⟶	port		(grey)hound	⟶	hound
	(eye)sight	⟶	sight		(clock)wise	⟶	wise
	(foot)ball	⟶	ball		(half)way	⟶	way
	(disk)drive	⟶	drive		(grand)son	⟶	son
	(bed)time	⟶	time		(book)case	⟶	case
	(ice)berg	⟶	berg		(post)mark	⟶	mark
	(flash)light	⟶	light		(race)track	⟶	track
	(door)bell	⟶	bell		(sand)box	⟶	box

3. Say:				4. Say:			
	(gold)fish	⟶	fish		(sun)set	⟶	set
	(black)board	⟶	board		life(guard)	⟶	life
	(head)light	⟶	light		(door)step	⟶	step
	(gum)drop	⟶	drop		rail(road)	⟶	rail
	(base)ball	⟶	ball		(free)way	⟶	way
	(down)town	⟶	town		sea(shell)	⟶	sea
	mail(box)	⟶	mail		(row)boat	⟶	boat
	(cart)wheel	⟶	wheel		draw(bridge)	⟶	draw
	hair(cut)	⟶	hair		(him)self	⟶	self
	(foot)print	⟶	print		in(come)	⟶	in

5. Say:				6. Say:			
	(tad)pole	⟶	pole		(jig)saw	⟶	saw
	moon(light)	⟶	moon		sand(wich)	⟶	sand
	(side)walk	⟶	walk		(tight)rope	⟶	rope
	grass(land)	⟶	grass		door(way)	⟶	door
	(text)book	⟶	book		(soft)ball	⟶	ball
	some(thing)	⟶	some		fore(head)	⟶	fore
	(leap)frog	⟶	frog		(pass)port	⟶	port
	there(fore)	⟶	there		home(land)	⟶	home
	(saw)horse	⟶	horse		(in)doors	⟶	doors
	grand(stand)	⟶	grand		hill(top)	⟶	hill

7. Say:				8. Say:			
	(grape)fruit	⟶	fruit		(space)craft	⟶	craft
	out(side)	⟶	out		back(ground)	⟶	back
	(mid)night	⟶	night		(play)pen	⟶	pen
	bill(board)	⟶	bill		out(grow)	⟶	out
	(out)look	⟶	look		(pay)roll	⟶	roll
	(air)craft	⟶	craft		hand(ball)	⟶	hand
	hill(side)	⟶	hill		(neck)tie	⟶	tie
	(ice)box	⟶	box		bull(dog)	⟶	bull
	side(ways)	⟶	side		(sky)line	⟶	line
	(in)field	⟶	field		land(slide)	⟶	land

ONSET-RIME LEVEL ACTIVITIES

KINDERGARTEN, FIRST GRADE, AND SOME OLDER STRUGGLING READERS

LEVELS F1, F2
LEVELS G1, G2

ONSET-RIME LEVELS

The earliest phonological awareness programs date from the late 1960s and early 1970s. These programs mixed together the activities that involved the first, middle, and ending phonemes in syllables. By the 1980s researchers demonstrated that initial phonemes were much easier to manipulate than middle and ending phonemes. Even though the initial phoneme in a syllable is a true phoneme, it is much simpler to manipulate than phonemes located in the middle or end of a word. Thus, to be truly developmental in our teaching of phonological awareness, we must acknowledge that the onset-rime level comes before the phoneme level. There is now ample research to support this.

You may find that this is the level where some students with reading difficulties get "stuck." Children with reading difficulties can do onset-rime level activities but struggle with the true phoneme levels. They usually become automatic with onset-rime activities. Yet some students with the most severe reading problems may even struggle with this level. However, most children without reading difficulties can do onset-rime level activities, if taught, by late kindergarten. For an extensive description of the onset-rime level, see Chapter 3 *Levels of Phonological Awareness*.

Level F1 represents deleting the initial sound in a word. Level G1 involves substituting a new sound in the onset position. For example:

deletion	Level F1	(s)it ⟶ it	(ch)air ⟶ air
substitution	Level G1	(t)ied ⟶ (r)ide	(t)ask ⟶ (m)ask

Levels F2 and G2 approach the onset-rime juncture from the other direction. These levels involve deleting or substituting the rime rather than the onset. For example:

deletion	Level F2	s(ing) ⟶ /s/	m(at) ⟶ /m/
substitution	Level G2	t(ime) ⟶ t(ack)	s(un) ⟶ s(ip)

In these cases, the entire rime unit is deleted or exchanged. Like F1 and F2, the split is at the onset-rime juncture. Many children will find F2 and G2 more difficult than F1 and G1 activities. However, they will find the rime deletion and substitution easier than deleting or substituting a middle or ending phoneme.

Remember: THE FOCUS IS ON THE SOUNDS, NOT SPELLING PATTERNS.

One Minute Activities Level F1

Say: **fall**   Now say **fall** again, but don't say **/f/** ⇢ **all**
Or: Say: **fall**   Now say it again, but don't say **/f/** ⇢ **all**

1. Say:				2. Say:		
	fall	don't say /f/	all		peer	don't say /p/	ear
	bad	don't say /b/	add		chair	don't say /ch/	air
	here	don't say /h/	ear		rise	don't say /r/	eyes
	rat	don't say /r/	at		wake	don't say /w/	ache
	pair	don't say /p/	air		game	don't say /g/	aim
	ties	don't say /t/	eyes		chase	don't say /ch/	ace
	birth	don't say /b/	earth		ham	don't say /h/	am
	leaves	don't say /l/	eves		shown	don't say /sh/	own
	call	don't say /k/	all		than	don't say /th/	an
	peg	don't say /p/	egg		con	don't say /k/	on

3. Say:				4. Say:		
	meek	don't say /m/	eek		leave	don't say /l/	eve
	hide	don't say /h/	I'd		bit	don't say /b/	it
	love	don't say /l/	of		wheel	don't say /wh/	eel
	lone	don't say /l/	own		coil	don't say /k/	oil
	gate	don't say /g/	ate		seat	don't say /s/	eat
	pour	don't say /p/	or		till	don't say /t/	ill
	shawl	don't say /sh/	all		came	don't say /k/	aim
	paid	don't say /p/	aid		pose	don't say /p/	owes
	she's	don't say /sh/	ease		pouch	don't say /p/	ouch
	nice	don't say /n/	ice		fame	don't say /f/	aim

5. Say:				6. Say:		
	wise	don't say /w/	eyes		side	don't say /s/	I'd
	dial	don't say /d/	aisle		whiz	don't say /w/	is
	seal	don't say /s/	eel		pan	don't say /p/	an
	kit	don't say /k/	it		chin	don't say /ch/	in
	hall	don't say /h/	all		lore	don't say /l/	ore
	mice	don't say /m/	ice		Nile	don't say /n/	I'll
	shove	don't say /sh/	of		cheer	don't say /ch/	ear
	neat	don't say /n/	eat		hive	don't say /h/	I've
	sought	don't say /s/	ought		fizz	don't say /f/	is
	rate	don't say /r/	ate		hit	don't say /h/	it

Mixed Levels

7. Say:							
	tear	don't say /t/	ear	(F1)	here	don't say /h/	ear
	fit	don't say /f/	it	(D2)	(can)dy	don't say (can)	dy
	sour	don't say /s/	our	(F1)	gate	don't say /g/	ate
	wheat	don't say /w/	eat	(E2)	(o)fficial	don't say (o)	ficial
	road	don't say /r/	owed	(F1)	fit	don't say /f/	it
	five	don't say /f/	I've	(D2)	(sil)ver	don't say (sil)	ver
	dice	don't say /d/	ice	(F1)	wheat	don't say /w/	eat
	wall	don't say /w/	all	(E2)	(lo)cation	don't say (lo)	cation
	bait	don't say /b/	ate	(F1)	wall	don't say /w/	all
	joke	don't say /j/	oak	(E2)	(vol)cano	don't say (vol)	cano

PHONEME-LEVEL ACTIVITIES

LEVELS H THROUGH N

FIRST GRADE, SECOND GRADE, AND
OLDER STRUGGLING READERS
(INCLUDING ADULTS)

BASIC PHONEME PROCESSING
LEVELS H1, H2
LEVELS I1, I2

ADVANCED PHONEME PROCESSING
LEVEL J
LEVELS K1, K2
LEVELS L1, L2
LEVELS M1, M2
LEVELS N1, N2 (OPTIONAL)

LEVEL H

Basic Phoneme-level Processing
Manipulating the First Sound in Initial Blends

H1 Level H1 involves deleting the first sound in a word, but the student must split an initial blend in order to delete this first sound.

        Samples: (t)rim ⇢ rim   (s)nail ⇢ nail

H2 Level H2 involves substituting the first sound in a word, but the student must split an initial blend in order to make the substitution.

        Samples: (b)lue ⇢ (g)lue   (d)ry ⇢ (f)ry

H1 Challenge Words (Three Phoneme Blends)	H1 has an extra, Challenge Words section that involves deleting one or two phonemes from words with three phoneme blends. These can be done after students have mastered H1 activities or done alongside the regular H1 activities. For most children, this will present no difficulty. For others, you may need to provide additional instruction about these three phoneme blends.

        Samples: (s)tray ⇢ tray or dray   (sc)rub ⇢ rub

Note that in some instances, the first of the three sounds in the blend is removed while in others, the first two sounds are deleted. Both are instances of H1 type manipulations.

Multiple correct answers for some items

Some words have more than one correct answer listed because many blends that begin with the letter *s* (*sp*, *st*, *sc*, etc.) change the sound of the second consonant. For example, the sound made by the letter *t* in the word *stray* is actually a /d/ sound. The /d/ and /t/ use the same mouth position, but the /d/ is *voiced* (uses vocal cords) while the /t/ is *non-voiced* (does not use vocal cords). To illustrate this issue, say: *spot*. Now say *spot* without the /s/. Most people respond "*pot.*" But if you say *spot* slowly, you will notice the second sound is the voiced /b/ and not the unvoiced /p/. You are not saying *s-pot*, but more like *sbot*. So, in a case like this, the student would get credit for either *pot* or *bot*. This is why more than one answer is listed for some of the *s* blends, especially in the *Challenge Words* (e.g., *strain* ⇢ *train* or *drain; sprint* ⇢ *print* or *brint*).

Problems with the manipulation of phonemes within blends

A small subset of students with phoneme awareness difficulties struggle more with blends than with other aspects of phoneme awareness. This means that Levels H, K, and M are particularly difficult and may require additional instructional help. The Developmental Teaching Hierarchy described in Chapter 8 can be used to assure that students will master the manipulation of blends.

Remember: THE FOCUS IS ON THE SOUNDS, NOT SPELLING PATTERNS.

One Minute Activities Level H1

	Say:	**brush**	Now say **brush**, but don't say **/b/**	**rush**
	Or say:	**brush**	Now say it again, but don't say **/b/**	**rush**

1. Say:	brush	don't say /b/	rush	2. Say:	plane	don't say /p/	lane
	great	don't say /g/	rate		snip	don't say /s/	nip
	ski	don't say /s/	key *or* ghee		claim	don't say /k/	lame
	trim	don't say /t/	rim		shrug	don't say /sh/	rug
	scare	don't say /s/	care *or* gare		trail	don't say /t/	rail
	clap	don't say /k/	lap		scan	don't say /s/	can *or* gan
	snap	don't say /s/	nap		fried	don't say /f/	ride
	climb	don't say /k/	lime		fled	don't say /f/	led
	snail	don't say /s/	nail		sneeze	don't say /s/	knees
	drawer	don't say /d/	roar		throw	don't say /th/	row

3. Say:	Fred	don't say /f/	red	4. Say:	scoop	don't say /s/	coop *or* goop
	shrub	don't say /sh/	rub		dry	don't say /d/	rye
	trend	don't say /t/	rend		slip	don't say /s/	lip
	broom	don't say /b/	room		truth	don't say /t/	Ruth
	skate	don't say /s/	gate *or* Kate		skit	don't say /s/	kit *or* git
	clean	don't say /k/	lean		crash	don't say /k/	rash
	flyer	don't say /f/	liar		swish	don't say /s/	wish
	scant	don't say /s/	can't *or* gant		glide	don't say /g/	lied
	twin	don't say /t/	win		speech	don't say /s/	peach *or* beach
	span	don't say /s/	pan *or* ban		glump	don't say /g/	lump

5. Say:	fright	don't say /f/	right	6. Say:	grave	don't say /g/	rave
	glad	don't say /g/	lad		skid	don't say /s/	kid *or* gid
	sleep	don't say /s/	leap		troll	don't say /t/	roll
	bland	don't say /b/	land		clock	don't say /k/	lock
	slack	don't say /s/	lack		flute	don't say /f/	loot
	grow	don't say /g/	row		slap	don't say /s/	lap
	phrase	don't say /f/	raise		ply	don't say /p/	lie
	snow	don't say /s/	no		grail	don't say /g/	rail
	frail	don't say /f/	rail		trap	don't say /t/	rap
	glee	don't say /s/	Lee		crave	don't say /k/	rave

Mixed Levels

7. Say:	brake	don't say /b/	rake	(G1)	look	instead of /l/ say /k/	cook
	slam	don't say /s/	lamb	(F1)	same	don't say /s/	aim
	flake	don't say /f/	lake	(F2)	mat	don't say /at/	/m/
	smile	don't say /s/	mile	(H1)	drain	don't say /d/	rain
	bread	don't say /b/	red	(G1)	cold	instead of /k/ say /s/	sold
	slow	don't say /s/	low	(H1)	sleep	don't say /s/	leap
	proof	don't say /p/	roof	(H1)	flap	don't say /f/	lap
	school	don't say /s/	cool *or* ghoul	(G1)	time	instead of /t/ say /d/	dime
	tweak	don't say /t/	weak	(G2)	cat	instead of /at/ say /up/	cup
	scab	don't say /s/	cab *or* gab	(G1)	team	instead of /t/ say /s/	seem

LEVEL J

Advanced Phoneme-level Processing
Substituting medial vowels

J   Level J involves switching the medial vowel in words.

Samples: d(a)d ⇢   d(i)d
                n(o)t ⇢   n(e)t

Multisyllabic/Applied Activities

    Level J teaches students to manipulate the medial vowel in words. The *Multisyllabic/Applied* activities are designed to apply that skill two-syllable or three-syllable words. This involves switching a medial vowel for another in a multisyllabic word.

Samples: l(e)sson   ⇢   l(i)sten
                n(ee)dle   ⇢   n(oo)dle

Special Administration Instructions for Level J

•*Short vowels* are represented by the normal, lower case representation of that vowel:

    a as in *pat*, *e* as in *pet*, *i* as in *pit*, *o* as in *pot*, and *u* as in *putt*.
    These are five words that differ only in the short vowel: pat, pet, pit, pot, putt

•Long vowels are represented by the upper case representation of that vowel:

    A as in *mate*, *E* as in *meet*, *I* as in *might*, *O* as in *moat*, and *U* as in *mute* or *moot*.*
    These are five words that differ only in the long vowel: mate, meet, might, moat, mute/moot

•Note that sometimes a short vowel may be exchanged for a long vowel or vice versa:

    Say: red   instead of /e/ say /E/   read
    Say: rate   instead of /A/ say /a/   rat

*Note that there are essentially two long *u* sounds, captured in the phrase "Hey Luke! Mute that cute flute." The long *u* sound in *mute* and *cute* makes the sound of the letter's name, *u*, and is pronounced like the word *you*. The second long *u* sound as in *Luke* and *flute* is often represented by either a *u* or *oo* (*tube*, *duty*, *fruit*, *boot*, *mood*).

    Remember: THE FOCUS IS ON THE SOUNDS, NOT SPELLING PATTERNS.

Appendices

Appendix A
PHONOLOGICAL AWARENESS DEVELOPMENT CHART
(See Chapter 8 for more details)

Student Name _____   School Year or Semester _____

Degree of Proficiency

SYLLABLE LEVEL PROCESSING

Basic Syllable Skills (Pre-K to first grade)*

		Multisensory Stage				Knowledge Stage	Automatic Stage
		L/S	VSp	VSeq	Oral		
D1	Delete: (cow)boy → boy						
D2	Delete: (un)der → der						
E1	Delete: (pine)apple → apple						
E2	Delete: (de)liver → liver						

Advanced Syllable Skills (first to second grade and older, struggling readers)*

E3	Delete: (tri)angle → angle						
E4	Delete: (an)imal → imal						
E5	Delete: ele(phant) → ele						

ONSET-RIME LEVEL PROCESSING *(kindergarten to first grade and some older, struggling readers)*

F1	Delete: (c)at → at						
F2	Delete: m(an) → m						
G1	Substitute: (n)ot → (h)ot						
G2	Substitute: t(an) → t(oy)						

PHONEME-LEVEL PROCESSING

Basic Phoneme Skills (first to early second grade and older, struggling readers)*

H1	Delete: (p)lane → lane						
H2	Substitute: (c)lass → (g)lass						
I1	Delete: car(t) → car						
I2	Delete: shee(p) → she						

Advanced Phoneme Skills (early second to early third and older, struggling readers)*

J	Substitute: b(a)g → b(i)g						
K1	Delete: c(l)ub → cub						
K2	Substitute: g(r)ow → g(l)ow						
L1	Substitute: pe(t) → pe(n)						
L2	Substitute: sen(t) → sen(d)						
M1	Delete: be(s)t → bet						
M2	Substitute: li(f)t → li(s)t						

*Grade estimates represent when most students become competent in the respective skill. Individual rates of development will vary.

Prepared by David A. Kilpatrick, Ph.D.

Appendix C

PHONOLOGICAL AWARENESS
SCREENING TEST (PAST)

The following pages contain four versions of the *Phonological Awareness Screening Test* (PAST), Forms A, B, C, and D. These multiple versions are designed for periodic updates throughout the school year.

For instructions on administering the PAST, see Chapter 11. Also visit www.thepasttest.com to get free PDF versions of the PAST in order to print them out to get a better looking copy than you would get from this book due to the spiral binding (see copyright fair-use statement below). Also, that website contains some video demonstrations of the PAST and provides documents with data on the PAST's reliability and validity.

Also note: No one should administer the PAST unless he or she has thoroughly read the instructions in Chapter 11 and practiced it multiple times on students for whom the results are not consequential. It is also recommended that the user seek feedback from a school psychologist, speech pathologist, or another professional trained in individualized assessments. *There is no value in giving the PAST if the results are invalid due to improper administration.*

PHONOLOGICAL AWARENESS
SCREENING TEST (PAST) FORM A

David A. Kilpatrick, Ph.D. © 2003, 2010, 2018
Adapted from the levels used in McInnis (1999) & Rosner (1973)

Name: _____   Date: _____   Grade _____   Age _____

Teacher: _____   D.O.B.: _____   Evaluator: _____

INSTRUCTIONS: See *Equipped for Reading Success* Chapter 11: "Assessment of Phonological Awareness" for detailed instructions on the PAST.

RESULTS:

	Correct	Automatic		
			Highest Correct Level:	_____
Basic Syllable	____/12	____/12	(Levels not passed below the highest correct level)	_____
Onset-Rime	____/10	____/10		
Basic Phoneme	____/10	____/10		
Advanced Phoneme	____/20	____/20	Highest Automatic Level:	_____
Test Total	**____/52**	**____/52**	(Non-automatic levels below highest automatic level)	_____

Approximate Grade Level (Circle):	PreK/K	K	late K/early 1st	1st	late 1st/early 2nd	2nd	late 2nd to adult

Note: The grade levels listed throughout the *PAST* are estimates based on various research studies and clinical experience. They are not formalized norms.

I. SYLLABLE LEVELS

Basic Syllable Levels (D, E2 - preschool to mid kindergarten; E3 - mid to late kindergarten)
LEVEL D   Say *bookcase*. Now say *bookcase* but don't say *book*.
FEEDBACK: "If you say *bookcase* without saying *book*, you get *case*."

			Correct Automatic
D1 (book)case ____	(sun)set ____	space(ship) ____	___/3 A: ___/3
D2 (sil)ver ____	(mar)ket ____	gen(tle) ____	___/3 A: ___/3

LEVEL E   Say *umbrella*. Now say *umbrella* but don't say *um*.
FEEDBACK: "If you say *umbrella* without saying *um*, you get *brella*."

E2 (um)brella___	(fan)tastic ___	(Oc)tober ___	___/3 A: ___/3
E3 (al)phabet___	(Sat)urday___	(tri)cycle___	___/3 A: ___/3

Basic Syllable Total: ___/12 A:___/12

II. ONSET-RIME LEVELS

Onset-Rime Levels (kindergarten to mid first grade)
LEVEL F   Say *feet*. Now say *feet* but don't say /f/.
FEEDBACK: "If you say *feet* without the /f/, you get *eat*; *feet-eat*."

(f)eet → eat ___	(c)ough → off ___		
(t)ame → aim ___	(t)ime → I'm ___	(c)one → own ___	___/5 A: ___/5

LEVEL G   Say *guide*. Now say *guide* but instead of /g/ say /r/.
FEEDBACK: "If you say *guide*, and change the /g/ to /r/, you get *ride*; *guide-ride.*"

(g)uide /r/ → ride ___	(m)ore /d/ → door ___		___/5 A: ___/5
(g)um /th/ → thumb ___	(l)ed /s/ → said ___	(f)eel /s/ → seal ___	

Onset-Rime Total: ___/10 A:___/10

PAST Form A
III. PHONEME LEVELS

Basic Phoneme Levels (early to late first grade)

| | Correct | Automatic |

LEVEL H

H1 (Deletion)   **Say *sleep*. Now say *sleep* but don't say /s/.**
FEEDBACK: "If you say *sleep* without the /s/, you get *leap*; *sleep-leap*."

(s)leep → leap ___   (c)rane → rain ___

H2   **Say *grew*. Now say *grew* but instead of /g/ say /t/.**
FEEDBACK: "If you say *grew*, and change the /g/ to /t/, you get *true*; *grew-true*."

(g)rew → (t)rue ___   (c)rane → (b)rain ___   (f)lows → (c)lose ___   ___/5 A: ___/5

LEVEL I   Say *went*. Now say *went* but don't say /t/.
FEEDBACK: "If you say *went* without the /t/, you get *when*; *went-when*."

I1 wen(t) → when ___   ran(g)e → rain ___

I2 whea(t) → we ___   nie(c)e → knee ___   dri(v)e → dry ___   ___/5 A: ___/5

Basic Phoneme Total: **___/10** A:**___/10**

Advanced Phoneme Levels (early to late second grade; Level M is early third grade to adult)

LEVEL J   Say *ran*. Now say *ran* but instead of /a/ say /u/.
FEEDBACK: "If you say *ran*, and change the /a/ to /u/, you get *run*; *ran-run*."

(*Short sound* of vowel)   r(a)n /u/ → run ___   k(i)t /u/ → cut ___   d(e)n /u/ → done ___

(*Long sound* of vowel)   b(ea)k /A/ → bake ___f(i)ne /O/ → phone ___   ___/5 A: ___/5

LEVEL K

K1 (Deletion)   **Say *bread*. Now say *bread* but don't say /r/.**
FEEDBACK: "If you say *bread* without the /r/, you get *bed*; *bread-bed*."

b(r)ead → bed ___   s(n)eak → seek ___

K2 (Substitution)   **Say *crew*. Now say *crew* but instead of /r/ say /l/.**
FEEDBACK: "If you say *crew*, and change the /r/ to /l/, you get *clue*; *crew-clue*."

c(r)ew → c(l)ue ___   s(c)ale → s(n)ail ___   s(n)eeze → s(k)is ___   ___/5 A: ___/5

LEVEL L   Say *some*. Say *some* but instead of /m/ say /n/.
FEEDBACK: "If you say *some*, and change the /m/ to /n/, you get *sun*; *some-sun*."

so(m)e /n/ → sun ___   rhy(m)e /d/ → ride ___

nigh(t) /s/ → nice ___   see(m) /t/ → sea(t) ___   kee(p) /z/ → keys ___   ___/5 A: ___/5

LEVEL M

M1 (Deletion)   **Say *ghost*. Now say *ghost* but don't say /s/.**
FEEDBACK: "If you say *ghost* without the /s/, you get *goat*; *ghost-goat*."

gho(s)t → goat ___   roa(s)t → wrote ___

M2 (Substitution)   **Say *craft*. Now say *craft* but instead of /f/ say /k/.**
FEEDBACK: "If you say *craft*, and change the /f/ to /k/, you get *cracked*; *craft-cracked*."

si(f)t → si(pp)ed ___   tru(s)t → tru(ck)ed ___   de(f)t → de(ck)ed ___   ___/5 A: ___/5

Advanced Phoneme Total: **___/20** A:**___/20**

PHONOLOGICAL AWARENESS
SCREENING TEST (PAST) FORM B

David A. Kilpatrick, Ph.D. © 2003, 2010, 2018
Adapted from the levels used in McInnis (1999) & Rosner (1973)

Name: _____ Date: _____ Grade _____ Age _____

Teacher: _____ D.O.B.: _____ Evaluator: _____

INSTRUCTIONS: See *Equipped for Reading Success* Chapter 11: "Assessment of Phonological Awareness" for detailed instructions on the PAST.

RESULTS:

	Correct	Automatic		
			Highest Correct Level:	_____
Basic Syllable	____/12	____/12	(Levels not passed below the highest correct level)	_____
Onset-Rime	____/10	____/10		
Basic Phoneme	____/10	____/10		
Advanced Phoneme	____/20	____/20	**Highest Automatic Level:**	_____
Test Total	**____/52**	**____/52**	(Non-automatic levels below highest automatic level)	_____

Approximate Grade Level (Circle):	*PreK/K*	*K*	*late K/early 1st*	*1st*	*late 1st/early 2nd*	*2nd*	*late 2nd to adult*

I. SYLLABLE LEVELS

Basic Syllable Levels (D, E2 - preschool to mid kindergarten; E3 - mid to late kindergarten)

		Correct	Automatic

LEVEL D   Say *leapfrog*. Now say *leapfrog* but don't say *leap*.
FEEDBACK: "If you say *flashlight* without saying *flash*, you get *light*."

D1 (leap)frog ____	(door)bell ____	mail(box) ____	___/3 A: ___/3
D2 (cor)ner ____	(mem)ber ____	mar(ble) ____	___/3 A: ___/3

LEVEL E Say *carnation*. Now say *carnation* but don't say *car*.
FEEDBACK: "If you say *carnation* without saying *car*, you get *nation*."

E2 (car)nation ___	(gym)nastics ___	(Sep)tember ___	___/3 A: ___/3
E3 (or)nament___	(at)mosphere___	(Af)rica	___/3 A: ___/3

Basic Syllable Total: ___/12 A:___/12

II. ONSET-RIME LEVELS

Onset-Rime Levels (kindergarten to mid first grade)

LEVEL F Say *far*. Now say *far* but don't say /f/.
FEEDBACK: "If you say *far* without the /f/, you get *are*; *far-are*."

(f)ar → are ___	(n)ame → aim ___		
(f)ive → I've ___	(c)ore → oar ___	(l)oan → own ___	___/5 A: ___/5

LEVEL G Say *kite*. Now say *kite* but instead of /k/ say /r/.
FEEDBACK: "If you say *kite,* and change the /k/ to /r/, you get *right*; *kite-right*."

(k)ite /r/ → right ___	(c)ane /r/ → rain ___		___/5 A: ___/5
(t)ime /r/ → rhyme ___	(s)oup /h/ → hoop ___	(sh)are /h/ → hair ___	

Onset-Rime Total: ___/10 A:___/10

PAST Form B
III. PHONEME LEVELS

Basic Phoneme Levels (early to late first grade)

LEVEL H

Correct   Automatic

H1 (Deletion)   **Say *sleeve*. Now say *sleeve* but don't say /s/.**
FEEDBACK: "If you say *sleeve* without the /s/, you get *leave*; *sleeve-leave*."

(s)leeve → leave ___   (g)reat → rate ___

H2 (Substitution) **Say *freeze*. Now say *freeze* but instead of /f/ say of /t/.**
FEEDBACK: "If you say *freeze*, and change the /f/ to /t/, you get *trees*; *freeze-trees*."

(f)reeze → (t)rees ___   (c)rew → (t)rue ___   (p)roud → (c)rowd ___   ___/5 A: ___/5

LEVEL I Say *sword*. Now say *sword* but don't say /d/.
FEEDBACK: "If you say *sword* without the /d/, you get *sore*; *sword-sore*."

I1 swor(d) → sore ___   mean(t) → men ___

I2 sea(t) → see ___   grou(p) → grew ___   wi(d)e → why ___   ___/5 A: ___/5

Basic Phoneme Total: **___/10 A:___/10**

Advanced Phoneme Levels (early to late second grade; Level M is early third grade to adult)

LEVEL J Say *man*. Now say *man* but instead of /a/ say /e/.
FEEDBACK: "If you say *man*, and change the /a/ to /e/, you get *man*; *man-men*."

(*Short sound* of vowel)   m(a)n /e/ → men ___   n(e)ck /o/ → knock ___   d(o)t /e/ → debt ___

(*Long sound* of vowel)   l(oa)n /I/ → line ___   s(i)de /E/ → seed ___   ___/5 A: ___/5

LEVEL K

K1 (Deletion) **Say *spy*. Now say *spy* but don't say /p/.**
FEEDBACK: "If you say *spy* without the /p/, you get *sigh*; *spy-sigh*,"

s(p)y → sigh ___   c(l)aim → came ___

K2 (Substitution) **Say *crime*. Now say *crime* but instead of /r/ say /l/.**
FEEDBACK: "If you say *crime*, and change the /r/ to /l/, you get *climb*; *crime-climb*."

c(r)ime → c(l)imb ___   g(r)ew → g(l)ue ___   c(l)oud → c(r)owd ___   ___/5 A: ___/5

LEVEL L Say *set*. Now say *set* but instead of /t/ say /d/.
FEEDBACK: "If you say *set*, and change the /t/ to /d/, you get *said*; *set-said*."

se(t) /d/ → said ___   whe(n) /t/ → wet ___

sou(p) /n/ → soon ___   to(n)e /d/ → toad ___   kni(f)e /t/ → night ___   ___/5 A: ___/5

LEVEL M

M1 (Deletion) **Say *dusk*. Now say *dusk* but don't say /s/.**
FEEDBACK: "If you say *dusk* without the /s/, you get *duck*; *dusk-duck*."

du(s)k → duck ___   she(l)f → chef ___

M2 (Substitution) **Say *rift*. Now say *rift* but instead of /f/ say /s/.**
FEEDBACK: "If you say *rift*, and change the /f/ to /s/, you get *wrist*; *rift-wrist*."

ri(f)t → wri(s)t ___   te(s)t → te(n)t ___   le(f)t → lea(p)t ___   ___/5 A: ___/5

Advanced Phoneme Total: **___/20 A:___/20**

PHONOLOGICAL AWARENESS SCREENING TEST (PAST) FORM C

David A. Kilpatrick, Ph.D. © 2003, 2010, 2018
Adapted from the levels used in McInnis (1999) & Rosner (1973)

Name: _____ Date: _____ Grade _____ Age _____

Teacher: _____ D.O.B.: _____ Evaluator: _____

INSTRUCTIONS: See *Equipped for Reading Success* Chapter 11: "Assessment of Phonological Awareness" for detailed instructions on the PAST.

RESULTS:

	Correct	Automatic	
Basic Syllable	____/12	____/12	Highest Correct Level: _____
			(Levels not passed below the highest correct level) _____
Onset-Rime	____/10	____/10	
Basic Phoneme	____/10	____/10	
Advanced Phoneme	____/20	____/20	Highest Automatic Level: _____
Test Total	**____/52**	**____/52**	(Non-automatic levels below highest automatic level) _____

Approximate Grade Level (Circle): | PreK/K | K | late K/early 1st | 1st | late 1st/early 2nd | 2nd | late 2nd to adult |

I. SYLLABLE LEVELS

Basic Syllable Levels (D, E2 - preschool to mid kindergarten; E3 - mid to late kindergarten)

				Correct Automatic

LEVEL D Say *footprint*. Now say *footprint* but don't say *foot*.
FEEDBACK: "If you say *footprint* without saying *foot*, you get *print*."

			Correct / Automatic
D1 (foot)print ____	(row)boat ____	mid(night) ____	___/3 A: ___/3
D2 (ta)ble ____	(o)ver ____	pan(da) ____	___/3 A: ___/3

LEVEL E Say *invention*. Now say *invention* but don't say *in*.
FEEDBACK: "If you say *invention* without saying *in*, you get *vention*."

E2 (in)vention ___	(ma)gician___	(me)chanic ___	___/3 A: ___/3
E3 (at)mosphere___	(cu)cumber___	(car)penter ___	___/3 A: ___/3

Basic Syllable Total: ___/12 A:___/12

II. ONSET-RIME LEVELS

Onset-Rime Levels (kindergarten to mid first grade)

LEVEL F Say *sheet*. Now say *sheet* but don't say /sh/.
FEEDBACK: "If you say *sheet* without the /sh/, you get *eat*; *sheet-eat*."

(sh)eet → eat ___	(ph)one → own ___		
(n)ame → aim ___	(r)ide → I'd ___	(w)ar → or ___	___/5 A: ___/5

LEVEL G Say *loop*. Now say *loop* but instead of /l/ say /s/.
FEEDBACK: "If you say *loop*, and change the /l/ to /s/, you get *soup*; *loop-soup*."

(l)oop /s/ → soup ___	(p)ut /f/ → foot ___		___/5 A: ___/5
(p)ool /r/ → rule ___	(c)are /ch/ → chair ___	(b)owl /g/ → goal ___	

Onset-Rime Total: ___/10 A:___/10

PAST Form C

III. PHONEME LEVELS

Basic Phoneme Levels (early to late first grade)

LEVEL H

H1 (Deletion/ **Say *sweet*. Now say *sweet* but don't say /s/.**
FEEDBACK: "If you say *sweet* without the /s/, you get *wheat*; *sweet-wheat*."

(s)weet → wheat ___   (ph)rase → raise ___

H2 (Substitution) **Say *true*. Now say *true* but instead of /t/ say /g/.**
FEEDBACK: "If you say *true*, and change the /t/ to /g/), you get *grew*; *true-grew*."

(t)rue → (g)rew ___   (c)laim → (b)lame ___   (t)roop → (g)roup ___   ___/5 A: ___/5

LEVEL I Say *word*. Now say *word* but don't say /d/.
FEEDBACK: "If you say *word* without the /d/), you get *were*; *word-were*."

I1 wor(d) → were ___   lam(p) → lamb ___

I2 boa(t) → bow ___   toa(d) → toe ___   hou(se) → how ___   ___/5 A: ___/5

Basic Phoneme Total: **___/10 A:___/10**

Advanced Phoneme Levels (early to late second grade; Level M is early third grade to adult)

LEVEL J   Say *bat*. Now say *bat* but instead of /a/ say /i/.
FEEDBACK: "If you say *bat*, and change the /a/ to /i/, you get *bit*; *bat-bit*."

(*Short sound* of vowel)   b(a)t /i/ → bit ___   g(e)m /a/ → jam ___   m(a)tch /u/ → much ___

(*Long sound* of vowel)   sh(ee)p /A/ → shape ___   ch(o)se /E/ → cheese ___   ___/5 A: ___/5

LEVEL K

K1 (Deletion) **Say *sled*. Now say *sled* but don't say /l/.**
FEEDBACK: "If you say *sled* without the /l/, you get *said*; *sled-said*,"

s(l)ed → said ___   b(r)eeze → bees ___

K2 (Substitution) **Say *crows*. Now say *crows* but instead of /r/ say /l/.**
FEEDBACK: "If you say *crows*, and change the /r/ to /l/, you get *close*; *crows-close*."

c(r)ows → c(l)ose ___   b(r)aid → b(l)ade ___   c(r)uise → c(l)ues ___   ___/5 A: ___/5

LEVEL L Say *hen*. Now say *hen* but instead of /n/ say /d/.
FEEDBACK: "If you say *hen*, and change the /n/ to /d/, you get *head*; *hen-head*."

he(n) /d/ → head ___   ri(s)e /m/ → rhyme ___

migh(t) /s/ → mice ___   tu(b)e /th/ → tooth ___   sou(p) /t/ → suit ___   ___/5 A: ___/5

LEVEL M

M1 (Deletion) **Say *swept*. Now say *swept* but don't say /p/.**
FEEDBACK: "If you say *swept* without the /p/, you get *sweat*; *swept-sweat*."

swe(p)t → sweat ___   fri(n)ge → fridge ___

M2 (Substitution) **Say *rent*. Now say *rent* but instead of /n/ say /k/.**
FEEDBACK: "If you say *rent*, and change the /n/ to /k/, you get w*recked*; *rent-wrecked*."

re(n)t → wre(ck)ed ___   ro(p)ed → roa(s)t ___   lea(s)t → lea(p)ed ___   ___/5 A: ___/5

Advanced Phoneme Total: **___/20 A:___/20**

Correct   Automatic

PHONOLOGICAL AWARENESS SCREENING TEST (PAST) FORM D

David A. Kilpatrick, Ph.D. © 2003, 2010, 2018
Adapted from the levels used in McInnis (1999) & Rosner (1973)

Name: _____   Date: _____   Grade _____   Age _____

Teacher: _____   D.O.B.: _____   Evaluator: _____

INSTRUCTIONS: See *Equipped for Reading Success* Chapter 11: "Assessment of Phonological Awareness" for detailed instructions on the PAST.

RESULTS:

	Correct	Automatic	
Basic Syllable	____/12	____/12	Highest Correct Level: _____
			(Levels not passed below the highest correct level) _____
Onset-Rime	____/10	____/10	
Basic Phoneme	____/10	____/10	
Advanced Phoneme	____/20	____/20	Highest Automatic Level: _____
Test Total	**____/52**	**____/52**	(Non-automatic levels below highest automatic level) _____

Approximate Grade Level (Circle): | PreK/K | K | late K/early 1st | 1st | late 1st/early 2nd | 2nd | late 2nd to adult

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I. SYLLABLE LEVELS

Basic Syllable Levels (D, E2 - preschool to mid kindergarten; E3 - mid to late kindergarten)

			Correct	Automatic
LEVEL D Say *sidewalk*. Now say *sidewalk* but don't say *side*.				
FEEDBACK: "If you say *sidewalk* without saying *side*, you get *walk*."				
D1 (sail)boat ____	(door)way ____	week(end) ____	___/3	A: ___/3
D2 (dol)phin ____	(car)pet ____	mor(ning) ____	___/3	A: ___/3

LEVEL E Say *tornado*. Now say *tornado* but don't say *tor*.
FEEDBACK: "If you say *tornado* without saying *tor*, you get *nado*."

			Correct	Automatic
E2 (tor)nado ___	(per)mission___	(de)partment___	___/3	A: ___/3
E3 (in)strument ___	(con)centrate ___	(wil)derness ___	___/3	A: ___/3

Basic Syllable Total: ___/12 A:___/12

II. ONSET-RIME LEVELS

Onset-Rime Levels (kindergarten to mid first grade)

LEVEL F Say *joke*. Now say *joke* but don't say /j/.
FEEDBACK: "If you say *joke* without the /j/, you get *oak*; *joke-oak*."

			Correct	Automatic
(j)oke → oak ___	(r)ise → eyes ___			
(j)ar → are ___	(f)ake → ache ___	(l)ake → ache ___	___/5	A: ___/5

LEVEL G Say *read*. Now say *read* but instead of /r/ say /n/.
FEEDBACK: "If you say *read*, and change the /r/ to /n/, you get *need*; *read-need*."

			Correct	Automatic
(r)ead /n/ → need ___	(h)er /f/ → fur ___		___/5	A: ___/5
(c)ode /t/ → toad ___	(l)ed /s/ → said ___	(th)ese /ch/ → cheese ___		

Onset-Rime Total: ___/10 A:___/10

PAST Form D

III. PHONEME LEVELS

Basic Phoneme Levels (early to late first grade)

	Correct	Automatic

LEVEL H

H1 (Deletion) **Say *tried*. Now say *tried* but don't say /t/.**
FEEDBACK: "If you say *tried* without the /t/, you get *ride*; *tried-ride*."

(t)ried → ride ___   (s)lam → lamb ___

H2 (Substitution) **Say *froze*. Now say *froze* but instead of /f/ say of /g/.**
FEEDBACK: "If you say *froze*, and change the /f/ to /g/, you get *grows*; *froze-grows*."

(f)roze → (g)rows ___   (t)rees → (f)reeze ___   (f)ries → (p)rize ___   ___/5 A: ___/5

LEVEL I Say *port*. Now say *port* without the /t/.
FEEDBACK: "If you say *port* without the /t/, you get *poor*; *port-poor*."

I1 por(t) → poor ___   sur(f) → sir ___

I2 sa(m)e → say ___   pla(c)e → play ___   nee(d) → knee ___   ___/5 A: ___/5

Basic Phoneme Total: **___/10 A:___/10**

Advanced Phoneme Levels (early to late second grade; Level M is early third grade to adult)

LEVEL J Say *hit*. Now say *hit* but instead of /i/ say /a/.
FEEDBACK: "If you say *hit*, and change the /i/ to /a/, you get *hat*; *hit-hat*."

(*Short sound* of vowel)   h(i)t /a/ → hat ___   wh(e)n /i/ → win ___   t(oo)l /e/ → tell ___

 (*Long sound* of vowel)   g(a)te /O/ → goat ___   c(a)pe /E/ → keep ___   ___/5 A: ___/5

LEVEL K

K1 (Deletion) **Say *try*. Now say *try* but don't say /r/.**
FEEDBACK: "If you say *try* without the /r/, you get *tie*; *try-tie*."

t(r)y → tie ___   s(l)ope → soap ___

K2 (Substitution) **Say *snail*. Now say *snail* but instead of /n/ say /t/.**
FEEDBACK: "If you say *snail*, and change the /n/ to /t/, you get *stale*; *snail-stale*."

s(n)ail → s(t)ale ___   f(l)ows → f(r)oze ___   g(l)ean → g(r)een ___   ___/5 A: ___/5

LEVEL L Say *foam*. Now say *foam* but instead of /m/ say /n/.
FEEDBACK: "If you say *foam*, and change the /m/ to /n/, you get *phone*; *foam-phone*."

foa(m) /n/ → phone ___   je(t) /m/ → gem ___

bo(th) /t/ → boat ___   wro(t)e /p/ → rope ___   tee(th) /ch/ → teach ___   ___/5 A: ___/5

LEVEL M

M1 (Deletion) **Say *wisp*. Now say *wisp* but don't say /s/.**
FEEDBACK: "If you say *wisp* without the /s/, you get *whip*; *wisp-whip*."

wi(s)p → whip ___   toa(s)t → tote ___

M2 (Substitution) **Say *ripped*. Now say *ripped* but instead of /p/ say /s/.**
FEEDBACK: "If you say *ripped*, and change the /p/ to /s/, you get *wrist*; *ripped-wrist*."

ri(pp)ed → wri(s)t ___   so(f)t → sa(l)t ___   ta(s)te → tai(n)t ___   ___/5 A: ___/5

Advanced Phoneme Total: **___/20 A:___/20**

Appendix D

ACTIVITIES THAT PROMOTE MAPPING THROUGH WORD STUDY

The strategies below are explained in Chapter 6. Use this page as a quick reference for lesson planning.

1) Teach students the vocabulary of mapping

Develop the students' instructional vocabulary (e.g., *syllable, onset, phoneme, rime unit, blend, digraph)*.

2) Phoneme-to-grapheme mapping technique

Students point to the letters/graphemes that represents sounds called out by the teacher.

3) Teach students to map rime units

Teach the rime units and other word parts. Also, do phoneme awareness activities on rime units.

4) Introduce words orally first

Before introducing a new word, discuss its oral properties to prepare them to "map" the oral sounds in the word to the letter string that forms the printed word.

5) Use look-alike words

Use look-alike words (e.g., *black, block, brick, brink, break, blink*) when you do flash cards, word searches, etc. This forces students to attend to every letter in the word, which promotes mapping.

6) Mapping irregular words

Always point out and reinforce the regular elements in words. Make special note of the irregular part(s).

7) Direct mapping technique

Have a student orally segment a word before looking at its printed form. Ask questions about which letter or letters make certain sounds in the oral word. For example: "In *clap*, which letter says /l/?"

8) Backward decoding technique

Have students sound out words, back to front, one rime unit or onset at a time.

9) Highlight rime units in words

Underline or otherwise highlight rime units in words (s<u>ent</u>, st<u>art</u>, c<u>arp</u><u>ent</u>er),

10) Use oral spelling to reinforce mapping

This reinforces phoneme awareness of a given word, and helps make the word a familiar letter string.

11) Oral decoding

Orally spell words and have students recognize the word(s) based on the oral spelling.

12) Invented spelling

When spelling previously untaught words, encourage invented spelling. Then correct as needed.

13) Reading nonsense words

Have children read 5-10 nonsense words per lesson (e.g., *blat, splank*).

14) Spelling nonsense words

Have children spell 3-5 nonsense words per lesson (e.g., *ap, blim, freep, coaf*).

15) Spelling irregular words

Have children spell irregular words (Appendix I).

16) Word structure analysis

Have students mark up words by underlining rime units and circling onsets.

17) Making/Breaking Words

Provide students with the letters of a big word. Have them record how many words they can make from those letters.

18) Words Their Way

Use this program to promote spelling, phonics, and word study.

19) Reversed sentence reading technique

Have students read a sentence going from the last word back to the first to avoid guessing based on context.

20) Use all capitals and other forms of presenting words

Present words in ways that disrupt their normal "look" including all capitals, mixed case (e.g., SePteMbEr; rEAsON), or print words vertically.

21) Reading sideways and upside-down

Have students read sometimes with the text rotated sideways (left and/or right) and sometimes upside down.

22) Multiple font and mixed case reading

Use different and unusual fonts to throw off the visual "look" of words.

23) Spaced out letters technique

Have words printed with large spaces between (e.g., w a l k   h a m m e r).

24) Linked words technique

Use connected text with no spacing to force students to use phonics skills. Perhaps vary the look of the words by using all lowercase or all uppercase or mixed cases (i.e., pRiNTwORdSLikEtHiSwiTHoUtSpACeEs).

NOTES