

Working Smarter, Not Harder What Teachers of Reading Need to Know and Be Able to Teach

In my 27+ years of involvement in public education, I have never met a teacher that did not care deeply about each and every one of his or her student's reading skills. As a Special Education teacher within elementary, middle, and high school settings, I, along with my peers, spent countless hours and sleepless nights preparing and delivering lessons with the hope of improving students' reading skills. As I worked harder, I watched my students' reading skills improve at a frustratingly slow rate; however, their progress never completely reached the grade level for which they strove. In searching for the answers to student reading success, I was left with the continual feeling that there was something more that could be done. Yet, even with over two decades of experience and the title of M.Ed., I could not identify what was missing in my reading instruction. Having not learned what I needed to know in my first two degrees, I was determined not to let that same mistake happen again. Consequently, before I began my doctoral work, I queried numerous national reading experts in an attempt to identify what I needed to learn.

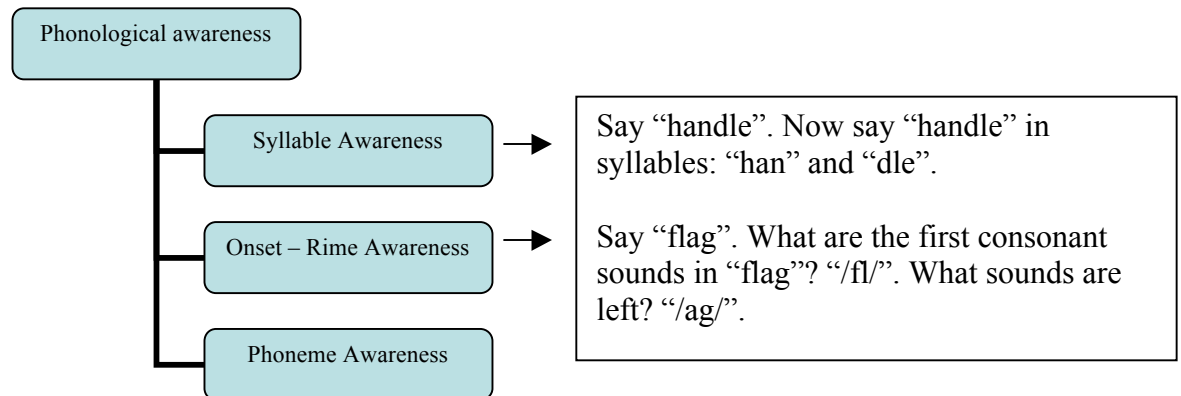
Over time, I came to understand that I had been missing a fundamental understanding of the scope and sequence of skills necessary to include within effective reading instruction. The often-quoted "five core components" of reading, including phonemic awareness, phonics, fluency, vocabulary, and comprehension, are inarguably crucial components. Until I studied this field in an in-depth manner, however, it was not always clear to me exactly what skills should be included within these components. Along with this is the necessary knowledge of exactly what we mean by these components, how these skills are translated throughout the grade levels, and what components should be emphasized, with what intensity, for which students. This information has enabled me to "work smarter, not harder" to increase the reading skills of students. I share the following outlines of these skills in the hopes that you, too, can use this knowledge to improve student reading achievement. We *can* make a difference in the lives of so many students!

Phonological Awareness

What it is:	A student's awareness of how spoken words consist of sounds.
When to teach:	Focus on pre-kindergarten, kindergarten and first grade. Taught beyond grade 1 for those students who have not mastered this skill.

Young children typically enter kindergarten with the ability to articulate words. They hear and produce, however, only connected streams of speech. To the average kindergarten student, "Once upon a time" sounds like one big, long word. Over time and with proper instruction, students must become aware of increasingly smaller units of speech, until they are able to identify and manipulate the individual phonemes, or speech sounds, of the English language. Instruction in phonological awareness follows a scope and sequence, from easier, larger units of spoken segments of words to smaller,

individual spoken sounds within words. Instruction is done without letters, focusing solely on the sounds of the language. One way to think of this is that you can do phonological awareness activities “in the dark.” While there are more levels of phonological awareness than are listed here, the following outline includes those levels found to be most connected to student progress in reading and spelling:



Phonological Awareness

Phonological awareness is an overarching, superordinate term referring to a student’s awareness of units of sounds that comprise our spoken language. The phonological awareness skills listed below should be taught in frequent, distributed lessons throughout kindergarten and first grade; for example, do activities daily for 5 to 15 minutes rather than twice per week for 30 minutes. Keep in mind that these skills should be mastered as a foundational skill for reading and spelling, and as such must be taught to older poor readers who exhibit weaknesses in this skill area.

Syllable Awareness

Syllable awareness refers to a student’s ability to orally segment words into spoken syllables, with each spoken syllable containing a vowel sound. An example of a task at this phonological awareness level would ask students to:

Say the word “*window*”. Now clap the syllables in this word: “*win*” “*dow*”.

Onset – Rime Awareness

Onset-rime awareness refers to a student’s ability to orally segment a word into its component parts, to include the onset, or initial consonant sound or sounds, followed by the rime, or the vowel and every sound that comes after it. Examples of onset-rime tasks, from easier to more difficult, would include:

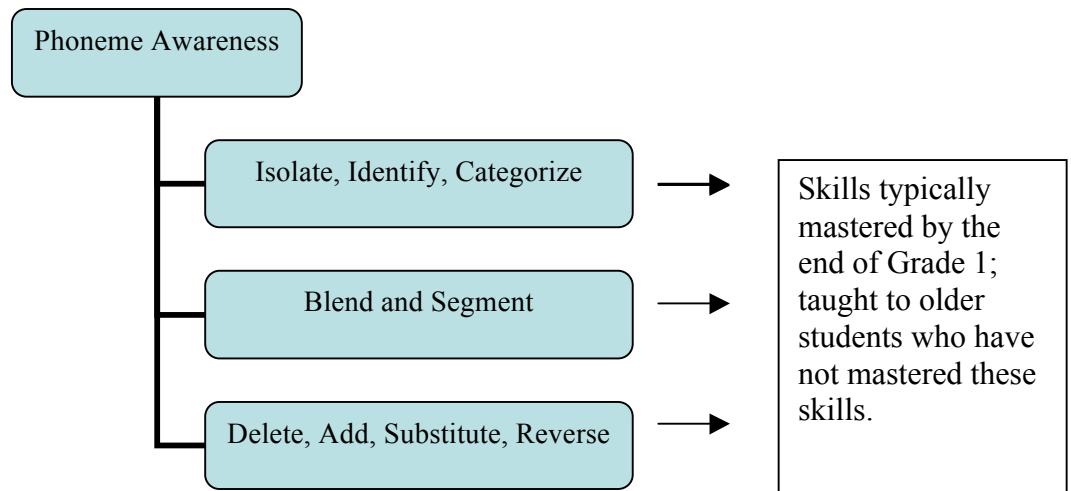
Say the word “*splat*”. What are the first consonant sounds (the onset)? “/spl/”. What sounds are left (the rime)? “/at/”.

Say the word “*spat*”. What are the first consonant sounds? “/sp/”. What sounds are left? “/at/”.

Say the word “*sat*”. What is the first consonant sound? “/s/”. What sounds are left? “/at/”.

Phoneme Awareness

The phoneme, or individual speech sound, is the level at which you ultimately want students to be able to identify, categorize, and manipulate speech sounds. While the individual speech sound is abstract in that we do not speak in individual sounds, students need to utilize this skill in order to later map these individual sounds to letter and letter patterns when ready for phonics in their reading and spelling instruction. The following are examples of phoneme awareness activities, from easier to more difficult:



Phoneme Isolation:

What is the first speech sound in the word:

fast /f/ flash /f/ spark /s/

What is the last speech sound in the word:

count /t/ please /z/ trapped /t/

What is the second speech sound in the word:

shout /ou/ blond /l/ trap /r/

Phoneme Identity:

What is the first speech sound in these words?

giraffe, jar, jaunt /j/

What is the last speech sound in these words?

stem, comb, autumn /m/

Phoneme Categorization:

What word does not belong here?

ceiling, kite, sister kite

What word does not belong here? apple, egg, avalanche egg

Phoneme Blending:

Blend the following sounds to make a word /s/ /ou/ /n/ /d/ /z/ sounds
Blend the following sounds to make a word /th/ /or/ /n/ thorn

Phoneme Segmenting:

What are the sounds in the word “switch”? /s/ /w/ /i/ /ch/
What are the sounds in the word “phone”? /f/ /oe/ /n/

Phoneme Deletion:

Say “climb”. Now say “climb” without /c/. lime
Say “flinch”. Now say “flinch” without /l/. finch

Phoneme Addition:

What word would you have if you added /sh/ to the beginning of “out”? shout
What word would you have if you added /z/ to the end of “bog”? bogs

Phoneme Substitution:

Say “splat”. Change /t/ to /sh/. What word would you get? splash
Say “browse”. Change /z/ to /n/. What word would you get? brown

Phoneme Reversal:

Say “skit”. Now say the sounds in the word “skit” backwards. ticks
Say “church”. Now say the sounds in the word “church” backwards. church!

References

A thorough, well-written text including both theory and practice:

Gillon, Gail T. (2004). *Phonological awareness: From research to practice*. NY: Guilford Press.

Phonics / Word Study

What it is: Mapping of letters to sounds
Analyzing the structure of how a word is spelled

When to teach: Beginning phonics from kindergarten through grade 2

Advanced phonics concepts in grade 3 and beyond
Taught at any grade for those students who have not mastered these skills

Phonics is a fundamental component of reading instruction for all children, not just those with reading difficulties. It is the lifeline for those students who do not readily interpret the alphabetic principle, and assists those good readers with improving both their fluency and spelling skills. Phonics skills begin with a student's ability to identify letter names both accurately and fluently and continues with the subsequent mapping of these letters onto sounds for the reading and spelling of words. Beginning phonics skills are to be mastered from K through grade 2, with more advanced phonics concepts introduced and taught from grade 3 and beyond. The following are examples of skills to be included within comprehensive phonics instruction, from easier to more difficult skills.

Knowledge of the names of the letters of the alphabet, both accurately and fluently

Mapping single consonant sounds with their most common letter representations.

Examples: p for /p/, b for /b/, m for /m/, f for /f/, v for /v/, t for /t/, d for /d/, n for /n/, s for /s/, z for /z/, l for /l/, r for /r/, k for /k/, c for /k/, g for /g/, j for /j/, y for /y/, w for /w/, h for /h/.

Mapping initial blends, which are two or three consonant sounds together in a word.

Examples of initial blends with two consonant sounds:

st-, sm-, sn-, qu-, sl-, sp-, sc-, sk-, bl-, cl-, fl-, gl-, pl-, br-, cr-, dr-, fr-, gr-, pr-, tr-, sw-, tw- (note that qu- represents two consonant sounds, /k/ and /w/, even though we think of the letter "u" as a vowel, and that this represents two sounds, not one)

Examples of initial blends with three consonant sounds:

spr-, str-, scr-, spl-

Examples of final blends with two consonant sounds:

-mp, -nd, -sk, -st, -ft, -lk, -ld

Mapping single consonant sounds with their more complex letter representations

Digraphs: two letters that represent one speech sound that is usually different from the sounds for either of the two letters.

Examples of sounds that are different from either letter:

sh for /sh/, th for /th/ (unvoiced, as in the word "think") and th for /th/ (voiced, as in the word "then"), ch for /ch/, ng for /ng/, ph for /f/

Example of sounds that are the same as one of the sounds in the digraph:

wh for /w/

Trigraphs: three letters that represent one sound:

Examples: tch for /ch/, dge for /j/

Silent letter patterns:

Examples: kn for /k/, mb for /m/, gn for /n/, mn for /n/, pn for /n/

Orthographic patterns:

Examples:

-ck for /k/ at the end of a single syllable word with a short vowel sound (stick)

doubling the -f, -s, -l, or -z at the end of a single syllable word with a short vowel sound (staff, kiss, pull, and fizz)

the sound for the letter “c” changes to /s/ when followed by the letters “i”, “e”, or “y” (city, cents, cyst)

the sound for the letter “g” sometimes, but not always, changes to /j/ when followed by the letters “i”, “e”, or “y”

(*gist, gentleman, gymnasium*, but not in the words *gift* or *get*)

su, -ge, or si used to represent the consonant sound /zh/, as in the words pleasure, montage, and vision

The letter “x” represents different sounds depending on where it is within a word. “X” sounds like /z/ at the beginning of a word or syllable, but sounds like the two sounds of either /k/ /s/ or /g/ /z/ within the middle of a syllable. “X” takes on the sounds /k/ /s/ at the end of a word.

Now that we have explored the consonant sounds and their letter patterns, review the following vowel sounds and the letters and letter patterns that represent these sounds. Teach students the most common letter patterns first, moving gradually to more complex, less frequent spelling patterns for these vowel sounds.

Single letters for vowel sounds.

Examples: a for /a/, e for /e/, ea for /e/ (bread), i for /i/, y for /i/ (gym), o for /o/, u for /u/

Each of the individual vowel letters a, e, i, o, and u can represent their long vowel sound, and single letters can also represent long vowel sounds.

Examples: a for /ā/ in vacation, e for /ē/ in revisit, y for /ē/ in happy, i for /ī/ in linguini, i for /ī/ in bicycle, y for /ī/ in cry, o for /ō/ in potato, and u for /ū/ in sunami

Vowel teams, or letter combinations to represent a single vowel sound

Examples:

The long vowel sound /ā/ represented by the letters ai, ay, ei, eigh, ey, ei

The long vowel sound /ē/ represented by the letters ee, ea, ie,
The long vowel sound /ī/ represented by the letters igh, ie
The long vowel sound /ō/ represented by the letters oe, oa, ow
The long vowel sound /ū/ represented by the letters u, oo (moon), ew (new), ue (clue)

Diphthongs, or vowel sounds that seem to slide in your mouth, giving you the feel of two movements. These are, however, classified as one speech sound.

Examples are:

oi / oy: use “oi” at the beginning or middle of a syllable

use “oy” at the end of a word or syllable

ou / ow: use “ou” at the beginning or middle of a syllable

use “oy” at the end of a word or syllable

Some programs classify /ī/ as a diphthong.

Some programs classify /ū/ as a diphthong. Technically, this is one sound that does not make two mouth movements, as heard in the word “blue”.

Some programs may classify the /ū/ sound, as found in the word “butane”, as one sound; here the letter “u” actually represents the same sound as the “oo” in “moon”, and there is a hidden glide /y/ before this vowel sound. The sounds in the word “butane” are /b/ /y/ /ū/ /t/ /ā/ /n/. Confusing? The important point is to teach all the sounds of the English language, mapping letters and letter patterns in a direct, systematic manner using a scope and sequence that corresponds to the frequency of spelling pattern used within the English language.

R-controlled vowel sounds

Here, the consonant letter “r” affects the sound of the preceding vowel so much that they become unitized into one speech sound.

Examples:

er, ir, and ur used to spell the sound /er/ as in the words “her”, “mirth”, and “church”.

or used to spell the sound /or/ as in the word “port”.

ar used to spell the sound /ar/ as in the word “charm”.

Once students have become accurate and fluent in their ability to decode (read) and encode (spell) many of the previously listed consonant and vowel rules within single syllables, teachers can begin building student knowledge at both the single and multisyllable word levels. Compound words such as “playground” and “cowboy” are introduced. Following are more advanced phonics skills, to include work at the morpheme and syllable levels and expanding to the topic of word origin as a way to categorize and understand the reasoning behind many of the letter patterns used in the English language.

Syllables: Taught to aid students in their ability to pronounce and spell multisyllable words. In general, most programs introduce the six syllable types outlined below. While there may be slight variations in the way in which syllables are taught within different

programs, the most important point to consider is whether syllables are included within phonics instruction.

Closed Syllables

A syllable that ends in a consonant sound or sounds; the vowel sound is short. Introduce this syllable type first, as it accounts for approximately 50% of the syllable types in text.

Underlined examples of closed syllables:

stomp cap / tain re / sist rip / ple

Vowel _ Consonant _ e Syllables

A syllable that includes a vowel followed by one consonant and the silent letter –e. Teach this syllable type second, as it is found in many words and is a common spelling pattern for long vowel sounds.

Underlined examples of vowel _ consonant _ e syllables:

bite com / pete re / bate e / mote

Open Syllables

A syllable that ends with a single vowel letter that represents a long vowel sound.

Underlined examples of open syllables:

so mo / ment cre / a / tion

Vowel Team Syllables

A syllable that includes a vowel sound that is made up of more than one letter. The sound of the vowel can be either long, short, or diphthong.

Underlined examples of vowel team syllables:

boil pleat / ed pow / der

Consonant –le Syllables

A syllable that ends with a consonant that is followed by the letters –le.

Underlined examples of consonant –le syllables:

puz / zle bot / tle bum / ble peo / ple

Vowel – r Syllables

A syllable that includes a vowel letter followed by the letter r, where the vowel and the r act as one unitized sound.

Underlined examples of vowel –r syllables:

birth re / port pur / pose farm / ing

Morphemes

The smallest meaningful unit of a word. Understanding words at the morphemic level allows students to get to the meaning of words accurately and quickly.

A morpheme can be as short as one letter, as in the letter 's' to mark the plurality of a word: startss frogss

A morpheme can consist of letter combinations that contain meaning, as in roots, prefixes, and suffixes within words. Examples of underlined morphemes:

pre dic tion un like ly con form

Word Origin

Directly teaching from where letter patterns of the English language originated aids students' understanding of how these words are spelled, increasing their ability to spell and read fluently and readily gain meaning from what they read. Word origins typically included within reading instruction include:

Anglo-Saxon: One of the oldest influences on the English language that has permeated throughout many years, Anglo-Saxon influences impact many of the single syllable function words and nouns that name our common objects. This influence accounts for the use of digraphs, vowel teams, r-controlled vowels, and many simple syllable patterns. While these words are found within the earliest of words, they frequently do not follow the expected phoneme-grapheme mappings we expect in English words.

Example words:

mother have head water love eye

Latin: One of the most prevalent influences on the English language, Latin is responsible for the construction of words that contain a root, along with the addition of a prefix and/or suffix.

Example words:

construction absolutely premeditated reconstitute

Greek: Influences that impact words typically associated with the areas of mathematics, science, and philosophy, words with Greek origins typically consist of a combination of roots connected to make a word.

Example words:

polymorphous atmosphere technophobe philanthropic

* letters within two slash marks refer to the sound of the letter, not the letter's name

References:

A practical teacher's guide that outlines both the skills of phonics as well as best practices to teach them. *Phonics from A to Z* focuses on grades K-3, which *Teaching phonics and word study* focuses on grades 3-8.

Blevins, W. (1998). *Phonics from A to Z: A practical guide*. NY: Scholastic

Blevins, W. (2001). *Teaching phonics and word study in the intermediate grades: A complete sourcebook*. NY: Scholastic.

A thorough, complete guide to all components of phonics, including the advanced word study necessary for teachers of upper elementary, middle school, and high school settings.

Henry, M. K. (2003). *Unlocking literacy: Effective decoding and spelling instruction*. Baltimore, MD: Paul H. Brookes Publishing Co.

Vocabulary

What it is: A student's lexicon, or internal dictionary, of knowledge of word meanings.

When to teach it: Vocabulary skills are taught in both direct and indirect ways throughout all grade levels; in actuality, throughout life! Early on, students learn vocabulary indirectly through exposures to words in conversations and read-alouds. By approximately grade 3, students actually gain much of their vocabulary knowledge through exposure to print. If unable to decode grade level text, students should be encouraged to listen to taped readings or have others read aloud in order to continue to increase exposure to challenging vocabulary words.

What to consider: While there is no one agreed-upon list of words to teach for vocabulary development, the following resources discuss how to choose words for vocabulary instruction, how many words should be taught, and best practices for instructing vocabulary. The importance of teaching students to decode both accurately and fluently by the end of third grade supports vocabulary development, since print exposure is crucial for students' continual vocabulary development.

References:

An especially teacher-friendly text containing activities and exercises to teach vocabulary well, focusing on students in K through grade 3:

Beck, I. L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.

An academic discussion of vocabulary research, containing valuable information concerning the number of words to teach, and when to teach them:

Stahl, S. A. (1999). Vocabulary development. In J. Chall (Ed.). *From reading research to practice; A series for teachers*. Cambridge, MA: Brookline Books.

A thorough, practical guide for teaching vocabulary at all grade levels, including best practices and activities to use for increased vocabulary learning.

Vocabulary and the child with learning disabilities. (Winter 2002). Stahl, S. A. (Ed). Perspectives. Baltimore, MD: International Dyslexia Association.

Fluency

What it is: The ability to gain deep meaning from what you read while using a limited amount of time.

When to teach it: All throughout reading instruction, especially starting in grade 1, with a focus on those students who do not meet grade level fluency benchmarks.

What to consider: Students may need fluency work at the subword, word, phrase, or sentence levels as well as practice at connected text levels.

Reference:

Hasbrouck, J. E. & Tindal, G. (2005, January). Behavioral Research & Teaching. *Oral Reading Fluency: 90 Years of Assessment* (BRT Technical Report No. 33), Eugene, OR.

Reading Comprehension

What it is: The ability to understand what you read at a “deep” level.

When to teach it: All throughout the grades.

What to consider: Oral language and vocabulary development are crucial support skills to reading comprehension. Read-alouds to young children, continuing until they can decode grade-level materials, assist in exposing students to academic language structures.

References:

A teacher-friendly resource outlining ways to interact with text to build student metacognition and increase reading comprehension.

Beck, I.L., McKeown, M.G., Hamilton, R.L., and Kucan, L. (Eds.) (1997). *Questioning the author: An approach for enhancing student engagement with text*. Newark, DE: International Reading Association.

A review of what we know about reading comprehension to date, and how we know it.

Carlisle, J., & Rice, M.S. (2003). *Reading comprehension: Research-based principles and practices*. Baltimore: York Press.

Dr. Carol A. Tolman