



## **Focusing on What Works in Reading**

As part of Psychological Services' commitment to help each child reach their full potential, we present this collection of research-based strategies that have been proven to increase reading skills. We encourage administrators to pass on this information as effective advocates for successful research-based approaches. Research indicates that we should be able to teach almost all but a few severely disabled students to read well (Moats, 1999). In 2000, the National Reading Panel responded to a Congressional mandate by reviewing over 1000 studies and identifying teaching methods that consistently yield improvement in reading (Armbruster, Lehr and Osborn, 2001). These findings are divided into five areas of reading instruction: Phonemic Awareness, Phonics, Fluency, Vocabulary and Text Comprehension. By incorporating teaching practices that really work, we can narrow the achievement gap and improve overall student achievement.

**Part I** - Phonemic Awareness

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**Part III** - Reading Fluency

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**Part V** - Reading Comprehension and References



## Part I: Phonemic Awareness

*By Robert Abernathy and Beth Moore*

### **What is Phonemic Awareness?**

Phonemic Awareness is the ability to focus on and manipulate the smallest units of sound that combine to form syllables and words of our spoken language. Phonemic Awareness has been identified as the most powerful predictor of reading success (Stanovich, 1986, 1994) and is the number one factor that separates normal and disabled readers (Adams, 1990). Learning Phonemic Awareness improves word reading, comprehension, spelling skills and has been shown to benefit students of all grade levels (Armbruster, Lehr and Osborn, 2001). Phonemic Awareness activities include:

**Phonemic Isolation:** The student is taught to recognize the individual sounds in a word. For example, asking the student to isolate and say the first or last sound in a word.

**Phonemic Identity:** Teaching the student to recognize the same sounds within different words. For example, asking the student which words in a set of words begin with the same sound.

**Phoneme Categorization:** Recognizing letter sound differences when presented with a list of words. For example, "Which word doesn't belong? **bug, big, rat?**" ...*rat* wouldn't belong because it doesn't begin with the /b/ sound.

**Phoneme Blending:** After listening to a sequence of individually spoken phonemes, students then combine the individual sounds together to form a word. Words can first be broken into two sounds (e.g., **n-et**). As the student progresses, words can be divided into individual sounds or phonemes (e.g., **sh-o-p**). Students can write the word and then read the word aloud.

**Phoneme Segmentation:** Students break a word into its individual sounds, clapping or tapping as they say each sound. Students can count the number of sounds they hear in a word (e.g., **at=2, cat=3**). Then students can be given words and asked to separate them into their separate sounds (e.g., **sip=/s/ /i/ /p/, sock=/s/ /o/ /k/**). The word can be written down and read aloud.

**Phoneme Deletion:** Students learn what sounds in a word remain after one phoneme is removed from that word. For example: **face** without the /f/ sound is **ace**.

**Phoneme Addition:** By adding a phoneme to an existing word, students make a new word. For example, if you add /s/ to the beginning of **top**, the word becomes **stop**.

**Phoneme Substitution:** Students replace one phoneme in a word for another to create a new word. For example, if you change the /g/ sound in **dog** to the /t/ sound, then new word is **dot**.

### **What is the Most Effective way to Teach Phonemic Awareness**

Phonemic Awareness instruction has been found to be most effective when it focuses on only one or two types of activities. Particularly, Phoneme Blending and Segmenting have been found to produce the most benefits.

Phonemic Awareness is most effective when it is taught within small groups where students use alphabet manipulatives (such as magnetic letters that we put on our refrigerators) as a visual and physical representation of the phonemes that are being studied. This allows the student to not only hear the different sounds, but also see what letters are associated with the sounds and actually touch them. By presenting these vital reading skills

through touch, vision and hearing, students are able to better understand and remember how the sounds of our language relate to one another.



## Part II: Phonics Instruction

*By Robert Abernathy*

Part II in this series focuses on research-based Phonics Instruction strategies that have been proven to increase reading skills. Phonics Instruction was identified by the 2000 National Reading Panel as a leading teaching method which consistently improves reading skills (Armbruster, Lehr and Osborn, 2001).

### **What is Phonics Instruction?**

Phonics Instruction teaches students how letters correspond to different sounds and is sometimes referred to as: grapho-phonemic relationships, letter/sound associations or correspondence, sound/symbol correspondence and sound spellings. The goal in teaching this skill is to help students learn the systematic and predictable relationships between written letters (graphemes) and spoken sounds (phonemes).

### **Effective Ways to Teach Phonics Instruction:**

Phonics Instruction is most effectively taught when selected sets of letter-sound relationships are taught explicitly in a logical and sequential order. Systematic and explicit Phonics Instruction works best when it is introduced early and in Kindergarten and First grade, it has been shown to improve word recognition and spelling skills. Beginning at second grade, more complex patterns of letters are presented and students continue to benefit as they receive direct instruction in decoding words with multiple syllables (Beck, Farr and Strickland, 2003). Phonics Instruction significantly improves reading comprehension and is extremely helpful for students with reading difficulties.

### **Early Reading Approaches to Teaching Phonics Instruction Include:**

**Synthetic Phonics/Word Blending:** Students are taught the sounds of letters and letter combinations, and then are instructed on how these sounds blend together into a familiar word. For example, /b/, /a/, /t/ blend together to make "bat."

**Word Building:** Students practice making words by using previously taught letter/sound relationships. This approach helps students to focus on both the individual letters and the sequence of letters in each word. Student learn how the same letters in different order can make totally different words and learn how just adding one or two letters to a known word can

change the word's meaning. For Example, when you add "s" to the beginning of "top" you get the new word "stop."

**Analytic Phonics:** Students take previously learned words and study the letter/sound relationships within those words. Analytic Phonics teaches sounds within the context of words and does not focus on isolated sounds. For Example, the word "said" has the sounds /s/, /e/, /d/. Instead of having students sound out every letter sound, students learn that within the context of this word, "ai" makes the /e/ sound.

**Analogy-Based Phonics:** Students use word families to learn new words which have similar parts. For example, by changing the beginning of the word "dog," you can make "log", "bog", "fog" and "hog."

**Phonics Through Spelling:** Students break words down into sound segments (phonemes), and then write the words down by writing letters for each sound segment. For example, the word "car" is broken down into the sounds /c/, /a/, /r/ and students convert each of those sounds into their written letter symbols.

**Onset-Rime Phonics Instruction:** While presenting one-syllable words, teachers focus on identifying the sounds that occur before the first vowel (the onset) and the sound of the remaining part of the word (the rime). For Example, the word "red" would be presented as /r/ -/ed/.

**Embedded Phonics:** While reading a passage, students are taught letter-sound relationships. This approach is not systematic or explicit, because random letter-sounds are taught as the students read.

### **Advanced Reading Approaches to Teaching Phonics Instruction Include:**

**Identifying Syllable Boundaries:** Students learn to break words into their syllable parts. This allows students to chunk letter patterns into smaller, easier to digest units while sounding out and comprehending long, unfamiliar words. For example, "impossible" is simply divided up by its' syllables: im-pos-si-ble.

**Identifying Syllable Types:** Students learn the different possible combinations of consonant and vowel sounds within English language syllables. Consonants and vowels are symbolized as "C" and "V," allowing the student to see the predictable patterns within our written language. For example, "matter" and "powder" are both represented as CVCCVC.

**Isolating Affixes:** Students learn how to identify prefixes and suffixes and learn how these affect the root meaning of words. For example, the meaning of the word "credible" is drastically altered when the prefix "in" changes the word to "incredible."

**Blending Syllables:** Students apply phonics knowledge to the blending of syllables within the sequence of letters in multi-syllable words. For example, the word "impalpable" is broken down sequentially into /im-pal-pe-bel/. The basics of phonics are used to help students read even the most indiscernible of words.



## Part III: Reading Fluency

*By Robert Abernathy*

Reading fluency is the ability to read a passage with speed, accuracy and correct intonation. Fluent readers effortlessly read each word and use appropriate expression to help convey the meaning of a passage. Since fluent readers have already mastered reading decoding, they are able to focus their attention on connecting new ideas within the text to their own background knowledge (Armbruster, Lehr and Osborn, 2001).

Non-fluent readers tend to break every word down phonetically, which makes their reading slow, choppy and difficult to follow in you aren't looking at the text they are reading. Non-fluent readers spend so much energy and effort on pronouncing each word that they are unable to focus much attention on the content of the passage they are reading (Feifer and De Fina, 2000).

After reviewing over 1000 studies, the 2000 National Reading Panel discovered that independent, silent reading **does not** improve reading fluency or overall reading achievement.

### **How to Increase Reading Fluency:**

Model fluent reading, and then have students re-read the text on their own. By reading aloud effortlessly and with expression, teachers can provide a model for what fluent reading sounds like. This also helps students learn how a reader's voice gives meaning to a written passage. Teachers can explain why they paused in certain places of the text and how the punctuation indicated when to lower or raise their voice. After the teacher models fluent reading, students need to re-read that same text. Reading fluency usually improves after students have read a text three to four times (It is not necessary for them to re-read the text three to four times on the same day).

Have students repeatedly read passages aloud with guidance. Repeated and monitored oral reading improves both reading fluency and overall reading achievement. Teachers can provide many opportunities to read the same passage orally several times. Students should re-read text that is relatively short and reasonably easy for them. Different ways to have students practice orally re-reading passages include:

- **Student-Adult Reading:** First the adult models fluent reading, then the student reads the same text back with the adult providing help and assistance as needed. The student continues to re-read the passage until the reading sounds natural and fluid.
- **Choral Reading:** After the teacher models how to fluently read a short passage, students are encouraged to read the same passage aloud along with the teacher. This technique works best with patterned stories or predictable books that repeat phrases. After re-reading the story several times, students should be able to fluently read the story by themselves.
- **Audio-Assisted Reading:** Students listen to an audio recording of a story as they follow along in their book. After hearing the story read fluently on the audio recording, students then read out loud along with the recording. Students continue to re-read the story until they can read it fluently without the support of the recording.
- **Partner Reading:** Paired students take turns reading to each other. The more fluent student reads first to model how the passage should be read. If both students are of equal ability, the teacher can read the passage first to correctly model fluent reading.
- **Readers' Theatre:** Students rehearse and then perform in front of an audience using scripts with lots of dialogue and drama. This technique provides a practical and fun way for students to re-read and practice their fluency.



## Part IV: Vocabulary Instruction

*By Robert Abernathy*

Part IV in this series examines the aspects of Vocabulary Instruction that have been proven to be effective strategies for improving reading skills. Having a broad and rich vocabulary allows us to understand each other and communicate precisely what we mean. As educators, some of our main goals are to teach students how to recognize words when listening, choose appropriate words when speaking, understand the meaning and context of words when reading and to effectively write words on paper in a way that clearly explains the writer's thoughts. Vocabulary skills are life skills...they are the basis for all communication.

### **Teaching Vocabulary Indirectly:**

Students learn most of their vocabulary indirectly as they encounter new words everyday. Oral vocabulary skills are vital to helping students make sense of what they are reading. Students learn vocabulary skills indirectly through:

**Daily Oral Language** - Children learn the meanings of words through everyday conversations with peers and adults. Children often say the "darndest" things because they repeat the interesting things they hear others say. Vocabulary increases as the number of oral language experiences increases.

**Listening to Adults Read** – Listening to an adult read fluently can teach word meanings indirectly. Adults should pause to explain any unfamiliar words and then discuss the new words and concepts found in the book. Teachers can do this on a daily basis in all subject areas.

**Independent Reading** – Vocabulary increases as children increase the amount that they read on their own. While this idea is no real secret, the inherent problem is often how to motivate students to read independently. A good way to approach this problem is to find out what the students are interested in and provide lots of appropriate reading materials that are related to their interests.

### **Teaching Vocabulary Directly:**

Direct Instruction of vocabulary is necessary for teaching conceptually complex words that are important to know, but may not be heard in everyday conversation. Students can be taught vocabulary directly by the following methods:

**Specific Word Instruction** – Teaching individual words helps students to have a deeper understanding of word meanings, which gives them a firm foundation for listening, speaking, reading and writing. Students better comprehend what they read when unfamiliar words have already been explained. Actively using new words in a variety of contexts over an extended period of time helps students to learn and retain word definitions. For example, in teaching the concept of “*evaporation*”, teachers can provide extended vocabulary instruction by asking the students what they already know about evaporation, having them give examples of experiences they may have had with water evaporating, and then reading and discussing a story or scientific text on evaporation. The teacher could demonstrate evaporation with a simple visual and hands-on classroom science experiment, and then students could generate sentences describing the experiment. Finally, students could come up with new examples of evaporation. The main goal in teaching new words is to give students many opportunities to see and actively use the new word in a wide variety of different contexts. Word meaning can be reinforced as the students actively use the new word repeatedly in different learning situations.

**Word Learning Strategies** – Students need skills to be able to independently figure out what unfamiliar words mean:

- **Dictionary Skills:** Students should learn how to use dictionaries and other reference aids as problem solving tools. If students do not understand a word presented in a textbook, the teacher can demonstrate how to find that word in the dictionary and determine which definition appropriately fits the context of the passage. The teacher could then substitute the appropriate definition with the unknown word in the original sentence.
- **Word Parts:** Learning prefixes, suffixes, base words and root words can help students determine the meaning of unfamiliar words. The most common prefixes (un-, re-, in-, dis-) give vital clues about 2/3 of all English words. The most important suffixes to learn are ones that have concrete definitions (e.g., -less = without, -ful = full of). Base words form the basis of many other words (e.g., mortal: mortality, mortally, immortal, immortalize). Word roots are foreign words that

have formed the basis of many English words. Teachers should teach word roots as they occur within content area texts.

- **Context Clues:** The meanings of words are often hinted at in the words, phrases and sentences that surround unknown words. Context clues can be restatements, definitions, examples or descriptions that impart word meaning. Teachers should demonstrate how to link context clues to unfamiliar words by emphasizing the context clue as they re-read the passage.

Students develop *word consciousness* as their vocabulary increases. Word consciousness is the awareness of word meanings and the choosing of words to communicate power, emotion and context. Teachers can develop this subtle, but effective, ability by calling attention to the way authors choose words to portray particular meanings, encouraging word play (e.g., puns or palindromes), researching word origins and pointing out examples of how a particular word is given meaning through everyday usage.



## Part V: Reading Comprehension

*By Robert Abernathy*

The final installment in this series brings us to the reason why written text was ever created in the first place...to convey ideas that can consistently be understood over time. To comprehend is to grasp the importance and meaning of information, and we now have over 30 years of research to help us effectively teach students how to understand what they read. The six strategies below have been identified by the 2000 National Reading Panel as the most effective approaches to teaching reading comprehension (Armbruster, Lehr and Osborn, 2001).

**Self-Monitoring** – Even in the early grades, students need to be aware of what they do and do not understand. Students need to be able to identify where in the text they are having difficulty and what that difficulty is. This strategy also involves students restating difficult text in their own words. By teaching students to look back through the previous text and to look forward through upcoming text, student can learn to help themselves resolve what they are having trouble understanding.

**Graphic & Semantic Organizers** – Graphic organizers use diagrams and pictures to illustrate how ideas presented within the text relate to each other. Semantic organizers are visual organizers that resemble a spider web, with lines connecting a central concept to related ideas and events. These visual organizers help students focus on the text structure, provide tools to see how pieces of the text fit together and help students organize accurate summaries.

**Answering Questions** – When teachers ask students questions about what they have read, they give a purpose for reading, focus attention on what is being taught, encourage students to think actively as they read, encourage students to self-monitor their level of understanding and help to review content while connecting what they have just read to what they already know.

**Generating Questions** – In order for students to come up with their own questions about the text they are reading, they must integrate information from different sections of the text. This helps students to better assess what they are reading and stimulates them to process the text more actively.

**Recognizing Story Structure** – Students understand and remember the sequence of events best when they grasp how the story plot is organized. Story structure instruction involves teaching students how to identify the setting, initiating events, internal reactions, goals, attempts and outcomes. Using story maps as a graphic organizer is an effective and powerful way to help students better understand the events of a story. It should be noted that this strategy works best when reading stories. This is not a good strategy for reading informational text or poetry.

**Summarizing** – Summarizing requires students to determine what is most important and explain it in their own words. This strategy helps students to cut through the bulk of the text and connect the main ideas in way that they can easily understand.

Reading comprehension strategies are most successful when they are explicitly taught in combination with each other through direct explanation, modeling, guided practice, application, and cooperative learning.

**Direct Explanation** occurs when the teacher explains to students why the strategy helps comprehension and when they should apply the strategy.

**Modeling** happens when the teacher demonstrates how to apply the strategy by commenting out loud while reading the text.

**Guided Practice** involves the teacher assisting students as they learn how to appropriately apply the strategy.

**Application** takes place when the students have practiced the strategy to the point where they can apply it independently.

**Cooperative Learning** utilizes small groups to work on clearly defined assignments. Within this setting, students help each other learn and apply comprehension strategies while working on content-area subjects.

Reading comprehension can be focused on everywhere text is present. Even students in the primary grades benefit from reading comprehension instruction. All readers benefit from understanding how reading is a process of making sense from written text. The better our students learn to digest what they are reading, the more prepared they will be for learning and the stronger their overall achievement will be.

## Resources/References

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