



HANDOUT -

Susan L. Hall, Ed.D. – *Understanding the Science of Reading and Structured Literacy*
The Reading League Illinois– 1-27-22

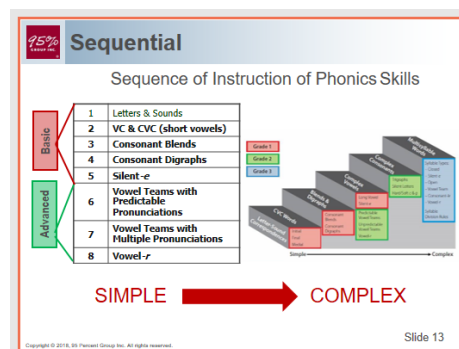
Twitter: @susanhall_EdD; Email: shall@95percentgroup.com

4 Key Presentation Resources

- Dehaene, S. (2010). *Reading in the Brain: The New Science of How We Read*. Penguin
- Kilpatrick, D. (2016). *Equipped for Reading Success: A Step-by-Step Program for Developing Phonemic Awareness and Fluent Word Recognition*. Casey & Krusch
- Kilpatrick, D. (2015). *Essentials of Assessing, Preventing, and Overcoming Reading Difficulties*. John Wiley & Sons.
- Seidenberg, M. (2017). *Language at the Speed of Sight. How We Read, Why So Many Can't and What Can Be Done About It*. Basic Books.

Important Information About Skilled Reading

- Behaviors of Skilled Readers on Word Reading (from Kilpatrick, *Equipped for Success*, pg. 4)
 - Instantly and effortlessly recognize known words in 1/20th of a second
 - Read 150-200 words per minute
 - Immediately recognize 30-70K words
 - Learn new words very quickly
 - Remember words they've learned
- International Dyslexia Association's position on the Principles of Structured Literacy
 - Link to download a 2-page overview: <https://dyslexiaida.org/effective-reading-instruction-for-students-with-dyslexia/>
 - Link to view infographic: <https://dyslexiaida.org/what-is-structured-literacy/>
 - Components of instruction: phonology, sound-symbol, syllables, morphology, syntax, and semantics
 - Principles of instruction: explicit, systematic & cumulative, diagnostic
- Before Talking about Phonics Lessons
 - “The most important key to fluent reading of any text is the ability to automatically recognize almost all of the words in the text.”, Torgesen et al., 2003, p 293
 - Definition of sight word for this presentation: A word that an individual can instantly and effortlessly recognize without sounding it out.
 - Size of a reader's “sight word bank” impacts ability to read with fluency and comprehension
 - Phonics skills can be viewed along a continuum from simple to most complex





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The Science of Reading

- Resource: U-tube Video of **Stanislaus Dehaene** explaining **how the brain reads**:
<https://www.youtube.com/watch?v=25GI3-kiLdo>
- “As adults we have forgotten how we were as children. The adults have the **illusion of whole word reading** but the brain processes every single letter and does not look at the whole shape.” (Dehaene, S. (2017). *Reading in the Brain*. <https://www.youtube.com/watch?v=MSy685vNqYk>. 12:44,13:13)
- “Learning with the **whole word method** is much slower and trains the wrong brain area in the right hemisphere. Systematic grapheme to phoneme correspondences has the upper hand in making the fastest change.” Dehaene, S. (2017). *How the Brain Learns to Read*.
<https://www.youtube.com/watch?v=25GI3-kiLdo>. 13:13, 36:47
- “The gulf between science and education has been harmful. A look at the science reveals that the methods commonly used to teach children are inconsistent with basic facts about human cognition and development and so make learning to read more difficult than it should be.” (Seidenberg, M. (2017). *Language at the Speed of Sight. How We Read, Why So Many Can’t and What Can Be Done About It*. Basic Books, p 9)

Steps of an Effective Phonics Lesson (list of steps – each will be discussed in depth)

Step 1: Review

Step 2: Teach New Concept

Step 3: Word Reading Accuracy

Step 4: Word Reading Fluency

Step 5: Reading Fluency (short phrases, long phrases, sentences, text)

Step 6: Word Building

Step 7: Sentence Dictation

Step 8: Transfer to Text (first with decodable readers)

Step 1: Review

- Brief – can vary but phoneme manipulation is an excellent review
 - For example, phoneme substitution
- Rationale:
 - “Also, the phonemes that make up the sounds of words in the phonological lexicon will act as **anchoring points** for remembering the spelling sequence of written words.” Kilpatrick (2015), pg. 87
 - “Efficient orthographic mapping will only occur if the student has adequate phonemic awareness/analysis. If he cannot pull apart the sounds in words, he cannot align those sounds to the order of the letters.” Kilpatrick (2015) pg. 100

Step 2: Teach New Concept

- When teaching phonics be aware of the importance of orthographic mapping
 - “Orthographic mapping is the mental process used to store words for immediate, effortless retrieval. It is the mechanism for sight-word learning. It requires good phonemic awareness, letter-sound knowledge, and the alphabetic principle.” Kilpatrick (2015) pg. 362
 - “The alphabetic principle is neither a skill nor a strategy; it is an insight. The alphabetic principle is the insight that there is a direct connection between the sounds of spoken language and the letters in the written word.” Kilpatrick (2015) pg. 93



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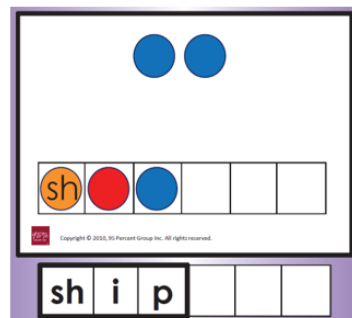
- Instructional strategy: Elkonin boxes and colored phonics chip (will be demonstrated in session)

- Colors can be helpful in focusing students on phonics patterns

	Consonants
	Consonant Digraphs
	Short Vowels
	Long Vowels
 	Vowel Teams
  	R-Controlled Vowels

- Steps for teaching phonics patterns using Elkonin boxes and colored phonics chips

- Say the word
- Fingerstretch the sounds
- Count the sounds
- Draw around the boxes
- Pull down one sound at a time
- Write the letters below each box



- Instructional strategy: Word sorting with pattern and contrast words (and syllable gestures as appropriate)



Step #3: Word Reading Accuracy

- Orthographic mapping
 - Occurs when students connect sounds with spellings of words
 - Creates a memory for known word patterns
 - Creates a base of chunks that are not easily read letter by letter: ould, ing, tion.
 - Mapping patterns to memory is essential for fluent word reading
- “Readers become orthographic experts by absorbing a lot of data, which is one reason why the sheer amount and variety of texts that children read is important...The path to orthographic expertise begins with practice, practice, practice but leads to more, more, more.” Seidenberg (2017) pg. 92.



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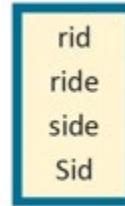
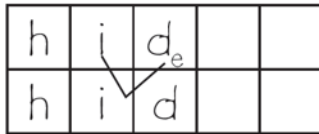
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Step #4: Word Reading Fluency & Step #5: Reading Fluency

- Words, short phrases, longer phrases, sentences, and passages

Step #6: Word Building

- Instructional strategy: sound-spelling mapping
- Instructional strategy: word chains



Step 7: Sentence Dictation

- Instructional strategy: Learn a tip for students self-checking their sentences.

Step 8: Transfer to Text (first with decodable readers)

- 95 Percent Group’s Transfer to Text Process:
 - Highlight skill words in passage and count them.
 - Read only skill words that have been highlighted.
 - Read passage with skill words highlighted.
 - Read unmarked copy of passage (no highlight words).
- Why decodable text
 - Transitions students from seeing the pattern in isolation to seeing it in text
 - Enables lots of practice opportunities with words that follow the pattern – artificially packed with skill words
 - Seidenberg talks about the importance of redundancy
 - “The nonrandom way that letters combine mean that letters carry information about others that are likely to occur. This property is known as redundancy.” Seidenberg (2017) pg. 90.
- Orthographic Statistics – Skilled readers have learned to: (from Seidenberg (2017) – pg. 89)
 - Identify the legal patterns of letters that are used frequently (THR, STR, etc.)
 - Recognize strings of letters that cannot occur in English (TSIP, SITP, XPLK)
 - Build neural structures that represent the permissible patterns
 - Tune the structures every time a text is read
- Practice is Important – “miles on the page”
 - “Readers become orthographic experts by absorbing a lot of data, which is one reason why the sheer amount and variety of texts that children read is important...The path to orthographic expertise begins with practice, practice, practice but leads to more, more, more.” Seidenberg (2017) pg. 92.