## Conquer the Code: Sounds, Symbols, \& Syllables <br> 



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## School of Education \& Human Development

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Classroom Teacher and Clinician ~ 25 years
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# International Dyslexia Association (IDA) Florida Branch 

https://fl.dyslexiaida.org/

Vision: ALL students in Florida will receive Structured Literacy instruction, provided by effective teachers, who understand the Science of Reading.

Mission: IDA-FL will be the state leader in the awareness and dissemination of current knowledge, research, and resources regarding dyslexia and related language-based learning disabilities. We will provide guidance, based on the Science of Reading, that informs appropriate assessment, Structured Literacy instruction, and intervention. This information will be available to all stakeholders, including children and adults with dyslexia, their families, teachers, and related professionals.

## Dyslexia: Brief Definition in Revised REC

- Dyslexia is a specific learning disability (SLD) in basic reading skills that can range from mild to severe. The primary characteristics include difficulties with accurate and fluent word recognition and spelling.

Note: Included in the glossary of the revised Reading Endorsement Competencies (2022), Florida DOE / Just Read, Florida!

## Today's Agenda



Focus on evidence-based strategies grounded in the:
The Science of Reading: The WHY
A vast, interdisciplinary body of scientifically-based research about reading and issues related to reading and writing.

Structured Literacy: The WHAT \& HOW
The content, principles, and strategies that are beneficial for ALL students, but vital for those with dyslexia!

## Science of Reading Defining Guide The Reading League (2022)

The Science of Reading: Defining Guide provides a firm definition of what the science of reading is, what it is not, and how all stakeholders can understand its potential to transform reading instruction.
https://www.thereadingleague.org/what-is-the-science-of-reading/


## The Simple View of Reading

Gough \& Tunmer (1986)


## The Reading Rope <br> Dr. Hollis Scarborough (2001)

## Language Comprehension

| $\mid$ Background Knowledge |
| :--- |
| Vocabulary Knowledge |
| Language Structures |
| Verbal Reasoning |
| Literacy Knowledge |

## Word Recognition

Phonological Awareness
Decoding (and Spelling)
Sight Recognition


## Structured Literacy: What is it?

- The application of the Science of Reading!
- The most effective approach for students who experience difficulty learning to read and spell printed words.
- Refers to both the content (elements) and methods (principles) of instruction.
- Benefits ALL students but is vital for students with dyslexia.
(Moats, Spring 2019, Perspectives on Language and Literacy)


## Structured Literacy: Elements (Content)

## The WHAT: P-S-S / M-S-S

- Phonology . . . Phonemic awareness
- Sound-symbol . . . Alphabetic Principle
- Syllables . . . Syllable types \& division

Aligned with the SVR and Reading Rope: Word Recognition

- Morphology . . . Base words and affixes
- Syntax . . . Grammar, sentence structure
- Semantics . . . Meaning, comprehension

Aligned with the SVR and Reading Rope: Language Comprehension

## Structured Literacy: Principles (Methods) The HOW

- Explicit
- Intentional, direct teaching; teacher-student interaction
- Multimodal: visual, auditory, kinesthetic, tactile (VAKT) in activities directly related to reading and writing (e.g., saying and feeling the word in your mouth [place and manner of articulation], while reading and writing the word)
- Systematic \& Cumulative
- Organization of materials follows a logical order.
- Each step is based on concepts previously learned.
- Diagnostic
- Teacher must be able to individualize instruction based on careful and continuous assessment.


## Reading is . . .

"an extraordinary ability, peculiarly human and yet distinctly unnatural."

(Dr. Sally Shaywitz, Overcoming Dyslexia, 2020, p. 3)

## Teaching Reading is Rocket Science!

Teaching Reading Is Rocket Science:


What Expert Teachers of Reading Should Know and Be Able to Do


Louisa C. Moats, American Federation of Teachers, American Educator, 2020 https://www.aft.org/ae/summer2020/moats

## Conquer the Code:

 Sounds, Symbols, and Syllables- Sounds
- Phonological Awareness
- Phonemic Awareness /s/ /p/ /i/ /d/ /er/
- Symbols
- Print Awareness
- Alphabet knowledge
spider
- Syllables
- Vowel Patterns
spī / der
- Syllabication



## Sounds: Phonology



The study of the sound structure of spoken words

The science of speech sounds

The speech-sound system of a language

## Phonological Awareness

- Refers to all levels of awareness of the sounds and syllables heard in oral language, including Phonemic Awareness.
- Sensitivity to the sounds of language: words, syllables, and sounds (phonemes).
- Understanding of the different ways that oral language can be divided into smaller components and manipulated.
- Includes:
- Phonological sensitivity: words, rhymes, syllables, onset-rime
- Phonemic awareness: phonemes


## Phonemic Awareness



- Awareness of the individual sounds that make up words and the ability to manipulate those sounds in words.
- Phoneme: The smallest unit of sound that distinguishes the meanings of spoken words.
- 44 sounds in the English language

25 consonant sounds
18 vowel sounds + schwa: /Ә/
https://dyslexiaida.org/building-phoneme-awareness-know-what-matters/

## 44 Sounds of the English Language (1)

Vowels (10)
/ă/
/ĕ/ /ē/
/i/ /ī/
/ŏ/ /ō/
/ŭ/ /ū/

Consonants (18)
/b/ /j/ /s/
/k/ /l/ /t/
/d/ /m/ /v/
/f/ /n/ /w/
/g/ /p/ /y/
/h/ /r/ /z/
virgules = / /

## 44 Sounds of the English Language (2)

Vowel Diphthongs (2)
/ou/
/oi/
Vowel Variants (3)
/au/
/OO/ (moon)
/oo/ (book)

Consonant Digraphs (7)
/sh/ /ch/ /wh/
/th/ /th/ /zh/ /ng/
r-controlled (3)
/ar/ /or/ /er/

Schwa (1) /ə/

## How many sounds do you hear?

- in the word box
- in the word enough
- in the word though

Can you say teach backwards?
How about enough? Are you phonemically aware?

## Elkonin Boxes (Sound Boxes)

Students slide counters into boxes to represent the sounds they hear in a word "push and say" (Phonemic awareness)


Gradually, letters can be used to show how print matches speech: sound to letter; oral to written
(Phoneme-grapheme mapping)


## Symbols: Orthography



- The writing and spelling system of a language.
- The system in which the sounds (phonemes) of a language are represented by written or printed symbols (graphemes) to spell words.
cat $/ k / / a ̆ / / \dagger /=$ c-a-t: 3 phonemes, 3 graphemes, 3 letters
sheep $/ \mathrm{sh} / / \bar{e} / / \mathrm{p} /=$ sh-ee-p: 3 phonemes, 3 graphemes, 5 letters
though /th//ō/= th-ough: 2 phonemes, 2 graphemes, 6 letters


## Sound-Symbol Association: The Alphabetic Principle

- the systematic and predictable relationship between the letters of written language and the sounds of spoken language
- the way print matches speech
- the relationship between phonology and orthography
- also known as the alphabetic code and phonics


## Phonics



- instructional practices that emphasize how spellings are related to speech sounds in systematic ways
- Graphemes represent or spell phonemes!
- Itchy's A/phabet provides manipulatives and letters with embedded pictures and teaches from speech to print.
- See https://itchysalphabet.com/



## Ways to Teach Phonics

- Synthetic Phonics
- c - a - t = cat [letter by letter]
- Body-Coda
- ca - t = cat [beginning consonant + vowel]
- Analytic Phonics
- c - at = cat [onset-rimes; word families]
- Vowel Patterns (syllable types)
- cat = cat [closed pattern]
- me = me [open pattern] etc.


## Color-Highlighting

| Vowels | $\underline{\text { Digraphs }}$ | $\underline{\text { Blends }}$ |
| :---: | :---: | :---: |
| a | $\underline{\text { sh }}$ | bl- |
| e | $\underline{\text { ch }}$ | cr- |
| i | $\underline{\text { th }}$ | str- |
| 0 | $\underline{\text { wh }}$ | $-n d$ |
| u | ph | $-m p$ |
| $-y$ | $-w$ | $\underline{\text { ck }}$ |
|  | $\underline{\text { tch }}$ | -nt |
|  | dge |  |

## Orthographic Mapping



- A process by which words are stored in memory for instant, effortless, automatic retrieval while reading (in the word form area, the brain's "letter box")
- Context-free, accurate, and immediate word recognition (Kilpatrick, 2015)
- Sight words are ALL words that can be recognized immediately, without sounding out or guessing; you can't NOT read a word you already know ©
- Dyslexia can be characterized by difficulties with orthographically mapping words.


## Phoneme-Grapheme Mapping

## Phonics

## m

a $\quad \dagger$
strap
S
$\dagger$
$r$
a
p
three th $r$ ee
punch
p
u $\quad \mathrm{n}$
ch
bright
b
r
igh
$\dagger$

## Your Turn!



- Let's try phoneme-grapheme mapping!
- I'll say the word.
- You LISTEN and count the number of phonemes.
- Write an x in each box for every sound you hear.
- WRITE the grapheme that spells each phoneme below it.
- Listen: shop x x x /sh/ /ŏ/ /p/ (3 phonemes)
- Write: shop (3 graphemes)
- Let's try another one. Listen . . .
- Tip: The number of phonemes always = the number of graphemes :)


## Syllables



- A syllable is a word or part of a word that includes one vowel sound.
- Syllable types help readers pronounce the vowel sound within each syllable.
- There are six basic syllable types.
- Also called vowel patterns or spelling patterns
- English is $85-88 \%$ regular!


## The English Language is Predictable

 "Morphophonemic"- A system that represents both sound and meaning (Moats, 2020, p. 97).
- 50\% of common English vocabulary can be spelled by phonemegrapheme correspondences alone, e.g.,
- $36 \%$ more can be spelled with one error, using only phoneme-grapheme correspondence rules.
- $10 \%$ more are spelled accurately if word origin, word meaning, and morphology are considered.
- Fewer than $4 \%$ are true oddities *(p. 124)
*Moats, L.C. (2020). Speech to Print: Language Essentials for Teachers (3rd ed.), Baltimore, MD: Brookes Publishing © ©

For more information on true "memory" or "heart words," see:
www.reallygreatreading.com/heart-word-magic

## Vowel Pattern Chart (Syllable Types)

| Closed <br> cat <br> fish | Open <br> bub- | go |
| :---: | :---: | :---: |

## Two Important Questions <br> 

1. How many vowels do you see?
2. Where is it? (or are they?)

The number and position of the vowel is critical!

$$
\begin{gathered}
\text { a e io u y w } \\
\text { ou/ow oi/oy au/aw/ew }
\end{gathered}
$$

## Closed Vowel Pattern

A word or syllable that contains only one vowel followed by one or more consonants; the vowel is short.
"One lonely vowel squished in the middle, says its special sound just a little."
sat bed fin top gum sand best print shop lunch at Ed in on up

## Open Vowel Pattern

A word or syllable that ends with one vowel; the vowel is long.
"If one vowel at the end is free, it pops way up and says its name to me."
me she hi go flu fly

## Silent e (Magic e) Vowel Pattern

A word or syllable that ends in e, containing one consonant before the final e and one vowel before that consonant; the vowel is long.
"The silent e is quiet, but it has a claim to fame; it makes the vowel before it say its real name."

The silent e is so powerful, it gives all its strength to the other vowel so that it can say its real name.

make Steve ride hope cube

## Bossy r (r-controlled) Vowel Pattern

A word or syllable containing a vowel followed by $r$; the vowel sound is altered by the $r$.

The letter $r$ is so bossy, it tells the vowel that it can't say its real name (long vowel) or its special sound (short vowel) but must say the $r$ sound (as in car, for, her).
"er girls"


## Double Vowel Talkers Pattern

A word or syllable containing two adjacent vowels; the first one is long. [vowel digraphs]

When two vowels go walking, the first one does the talking and says its name.

rain day see meat pie boat toe slow suit blue

## Double Vowel Whiners Pattern

A word or syllable that contains two adjacent vowels; the vowels say neither a long or short vowel sound, but rather a very different sound. [diphthongs and variants]

Sometimes when two vowels are next to each other, they make a funny whining sound, like when you fall down and say "ow," "aw," "oy," and get a "boo-boo."
fault saw $\begin{gathered}\text { foil boy loud cow moon new } \\ \text { "oy boys" }\end{gathered}$

## C+le Vowel Pattern

This syllable ends with "le" preceded by a consonant and occurs in two-syllable words. [consonant + le]

When a word ends with a consonant and "le," the "le" grabs the consonant before it, and the word breaks into two parts right before that consonant.

bub-ble ca-ble ea-gle poo-dle pur-ple

## Your Turn!

- Read the following poem.
- Find at least two words that represent each syllable type (vowel pattern).
- Write them on your Vowel Pattern Chart (VPC).


## Idle Cable

Cable likes to dawdle, He's easy as a bone. Her sets no example, Just circles like a drone. He could use his noodle And be a worker bee, But he just likes to doodle In the maple tree.

(Wright Group/McGraw Hill, Fast Track Reading, Word Work, Phonics)

## Vowel Pattern Chart: Idle Cable

| Closed | Open | Silente |
| :---: | :---: | :---: |
| $\underline{\text { Bossy r }}$ | $\frac{\text { Talkers Whiners }}{}$ | $\underline{C+l e}$ |

## Vowel Pattern Chart: Idle Cable



## Syllable Division

- C+le: tur/tle bossy r \& C+le
- VC/CV: rab/bit
closed \& closed
- V/CV: ti/ger
 open \& bossy r
- VC/V: cam/el 485
closed \& closed
- V/V: li/on

open \& closed


## Strategy for Syllabication

"Spot and dot" the vowels.
Connect the dots.
Look at the number of consonants between the vowels.
If 2 - break between the consonants.
If 1 - break before the consonant. tiger
If it doesn't sound right, move over one letter. camel

## Your Turn!

- Atlantic
- professor
- entertainment
- accommodate

> Try to divide these words, using the Spot \& Dot strategy.


Atlantic professor entertainment en / ter / tain / ment (C / R / T / C) accommodate ac/com/mo/date (C/C/O/E)

This strategy helps spelling, too!!

## Vowel Pattern Chart (Syllable Types)

| $\begin{gathered} \text { Closed } \\ \text { At - lan - tic } \\ \frac{\text {-fes- }}{\text {-en- }} \\ \text {-ment } \\ \text { ac- com- } \end{gathered}$ | Open pro--mo/a/ | $\frac{\text { Silent e }}{\text {-date }}$ |
| :---: | :---: | :---: |
| $\begin{gathered} \text { Bossy r } \\ \hline \text {-sor } \\ \text {-ter- } \end{gathered}$ | 2 Vowels <br> Talkers Whiners <br> -tain | C+le |



## A Final Thought

"Do the best you can until you know better. Then, when you know better, do better!" (Maya Angelou)

## Our challenge:

To provide Structured Literacy, based on the Science of Reading
 to ALL children, in EVERY classroom!

We know better . . . it's up to us to DO better!

## A Few Books of Interest




Acsewch-Exchod Ciossroom-Testod Strategies to Ensure $K$-to- 3 fending success



## Websites of Interest


http://www.decodingdyslexia.net Decoding Dyslexia
https://dyslexiaida.org International Dyslexia Association (IDA)
https://fl.dyslexiaida.org IDA-Florida Branch
www.fcrr.org Florida Center for Reading Research
www.ReadingRockets.org Reading Rockets
www.thereadingleague.org The Reading League
https://fl.thereadingleague.org/ The Reading League- Florida
https://ufli.education.ufl.edu/foundations/ UF Literacy Institute www.understood.org Understood

## Awesome Resources

Teaching Reading IS Rocket Science, 2020, Dr. Louisa Moats: https://www.aft.org/ae/summer2020/moats

Dyslexia in the Classroom (IDA):
https://dyslexiaida.org/dyslexia-in-the-classroom/

What is Structured Literacy?
https://dyslexiaida.org/what-is-structured-literacy/

## The End!



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