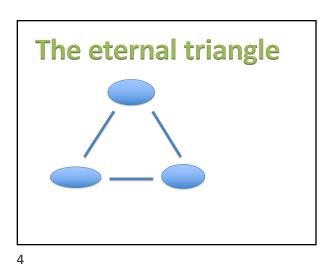
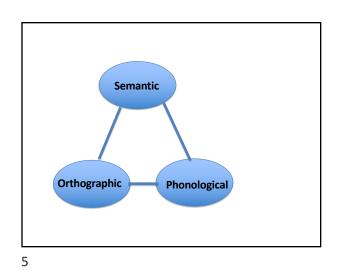
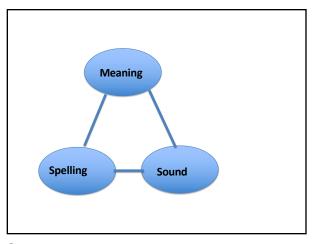


**The Reading Circuit** and Dyslexia

Gratitude to... Linnea Ehri Maryann Wolf Stanislas Dehaene Mark Seidenberg David Kilpatrick Marilyn Jagar Adams Sally Shaywitz **Bruce McCandliss** 3







Mark Weakland Literacy

# **Orthography**

Ortho graphy
Or tho graph y
Or thography

# **Orthography**

Recording and storing correct letters sequences (words) in our brain.

7

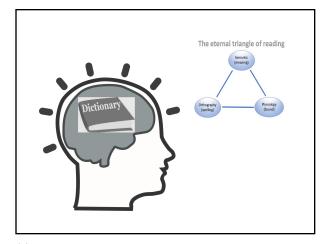
2

Orthography is synonymous with orthographic mapping.

We read by <u>first</u> recognizing the correct letter sequence of each word.

9

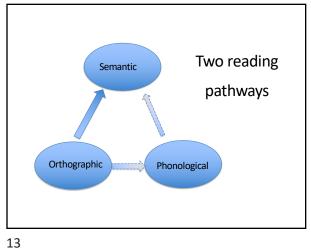
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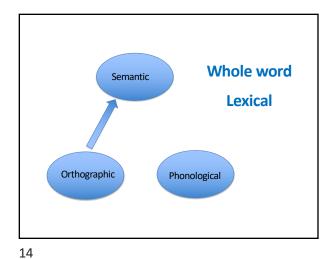


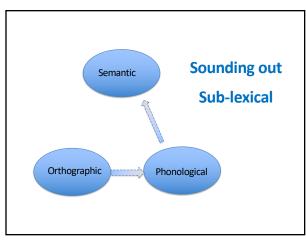
How many different reading pathways exist in a reader's brain?

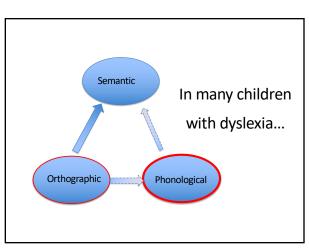


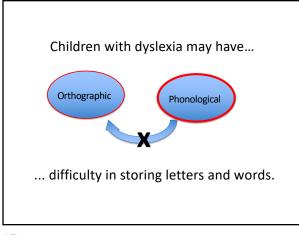
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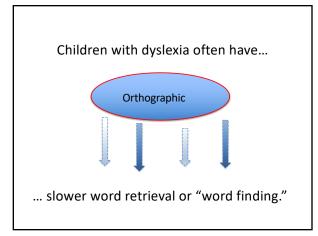


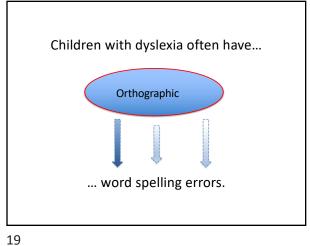


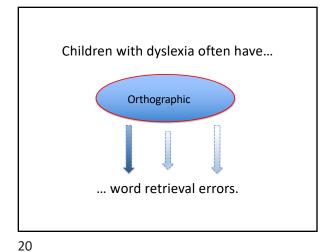


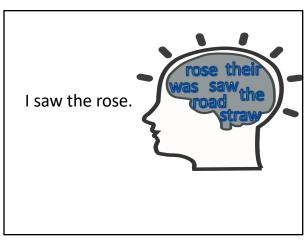


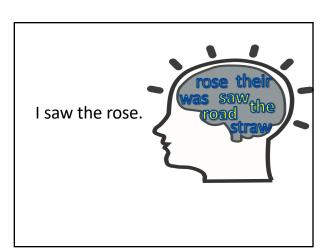




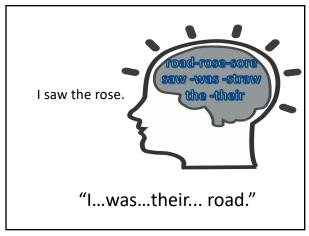


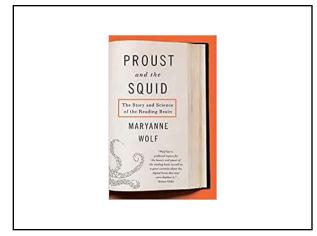






21 22





23 24

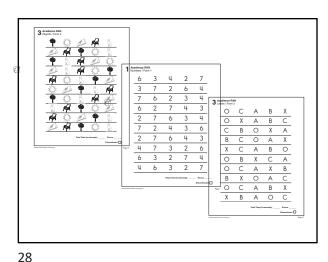


25 26

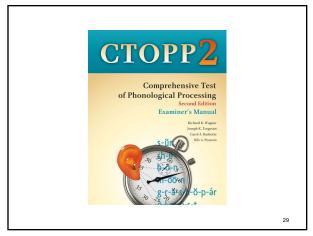
Arkansas Rapid Naming Screener (K-2)

Rapid Automatized Naming (RAN)

Practice



27



CTOPP-2 Subtests and Composites: 4- to 6Year-Old

Table 2.1

CTOPP-2 Subtests and Composites for 4-6-Year-Olds

Table 2.1

Composite

Phonological Awareness Phonological Memory Rapid Symbolic Naming

Core
Diston

Blending Words

Sund Marching

Memory for Digits

Nonword Repetition

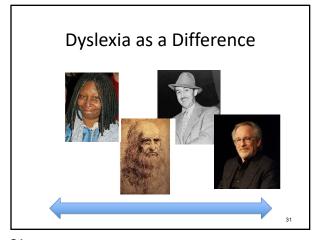
Rapid Digit Naming

Rapid Color Naming

Supplemental

Blending Nonwords\*

29 30



**Instructional Techniques** 

The Science of Reading Meets

The Science of Teaching



32

31

32

## General instructional techniques

- 1. Repetition & distributed practice
- 2. Instant error correction



- 3. Direct & explicit instruction
- 4. Efficient multi-sensory instruction

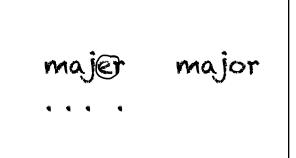
1-6

Hear It, Say It, Write It, Read It

Dot & Check Spelling

33

34



Direct and Explicit
Instruction

86

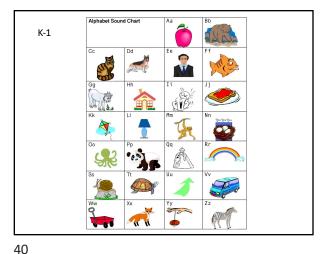
35

phonology spelling-phonics vocabulary grammar

**Efficient Multi-Sensory** 

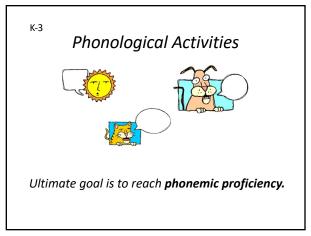
38





39





41 42

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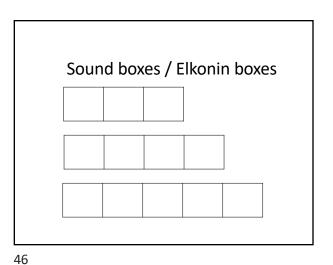
37

K-2 Hands Together, Apart, and Away

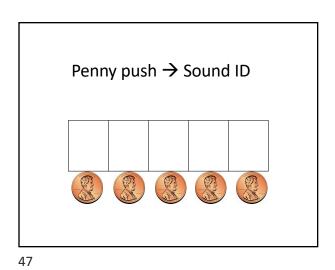


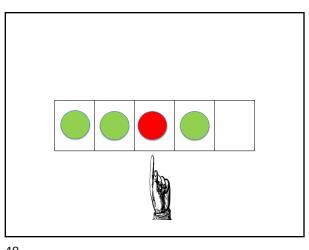
43

Stretch, Tap, Zap



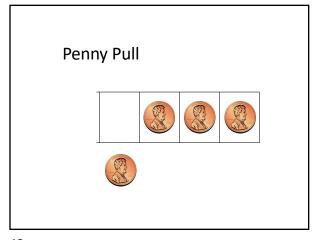
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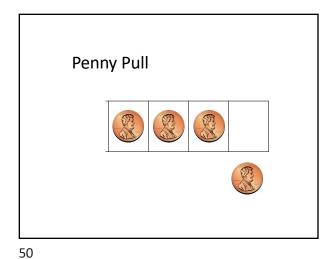




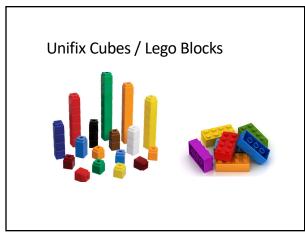
48

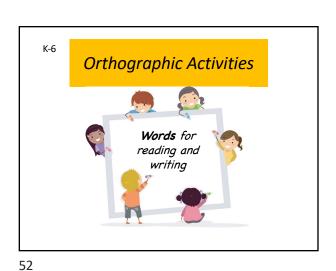
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49





51

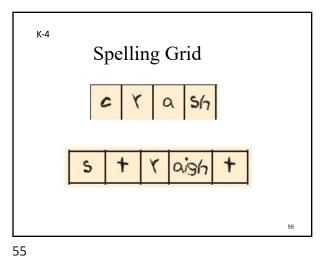
Connecting Phonology
and Orthography

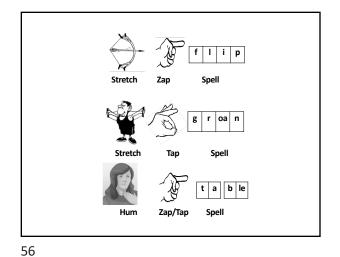


53 54

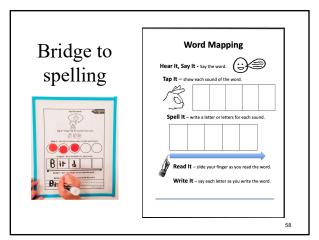
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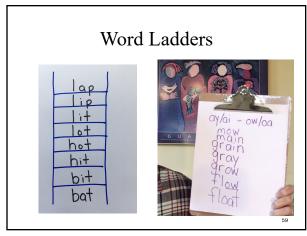


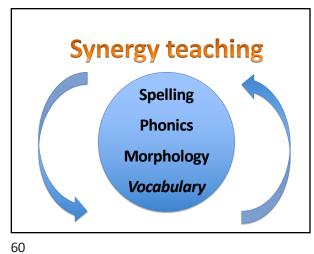






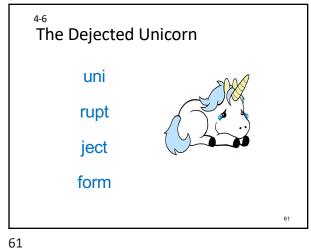
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59

62



unicorn uniform inform inject eject dejected





63 64



Hey!! **What About Structured Literacy?** 

65 66

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#### (Reading Rockets 2022 / IDA 2018)

#### What

### How

- 1. Phonology
- 1. Systematic
- 2. Sound-symbol association
- 2. Cumulative
- 3. Syllable instruction
- 3. Explicit
- 4. Morphology
- 4. Diagnostic
- 5. Semantics



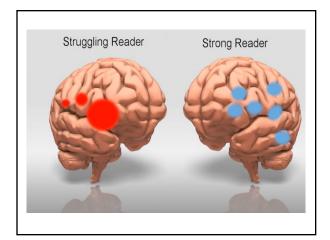
**Bruce McCandliss** 

Brain Plasticity in Learning Visual Words (1997)

The visual word form area: expertise for reading in the fusiform gyrus (2005)

67

68



Hemispheric specialization for visual words is shaped by attention to sublexical units during initial learning

-McCandliss, et.al. 2015/16

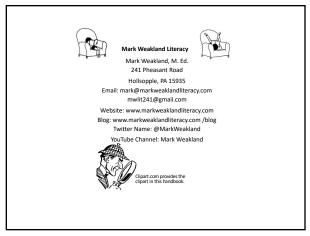


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The unsung hero who wires the reading brain is...

A TEACHER!



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