



International
DYSLEXIA
Association®
Pennsylvania

Reading, Writing, Spelling

It's about oral language and building the brain
for literacy in the early childhood years

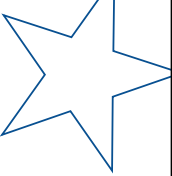



Speech to Print + Multi-Linguistic + Meta-Linguistic =
Making a difference in student outcomes for oral and written language.



1

Introduction

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Licensed SLP and professional educator w/
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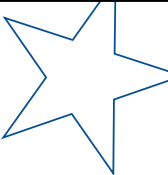

Author, SPELL-Links to Reading & Writing

Inventor, Earobics




2

Disclosures

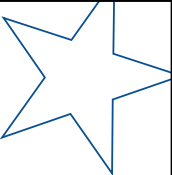
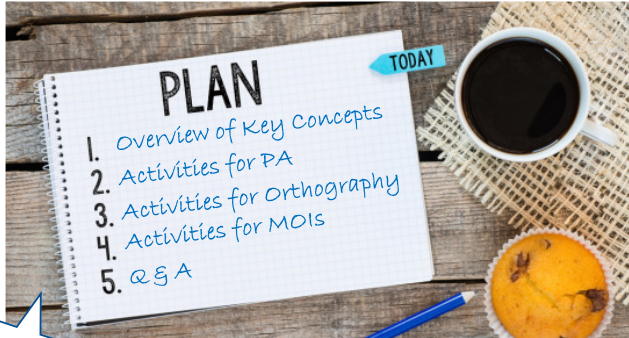



Dr. Wasowicz is president of Learning By Design, publisher of the SPELL-Links to Reading & Writing word study curriculum. Methods of instruction that appear in SPELL-Links will be used to illustrate the principles of instruction covered in this presentation. Dr. Wasowicz will receive an honorarium for this presentation. She has no relevant non-financial relationship to disclose.




3

Agenda

1. Overview of Key Concepts
2. Activities for PA
3. Activities for Orthography
4. Activities for MOIS
5. Q&A



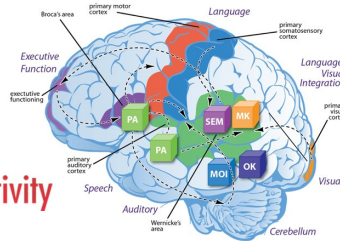
4

Key Concepts / Framework

Speech to Print + Multi-Linguistic + Meta-Linguistic =
Making a difference in student outcomes for oral and written language.

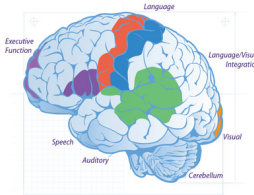
Develop
Connect
Integrate

Functional Connectivity



5

Wired for Oral Language



We are biologically wired for oral language,
but not for written language.

6

Wired for Oral Language

Shouldn't reading & writing instruction begin there?



7

Traditional Instruction

Print to Speech

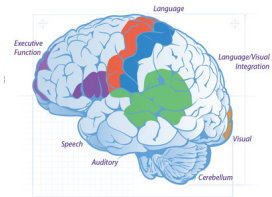
stop

's' = / s /
 't' = / t /
 'o' = / o /
 'p' = / p /



8

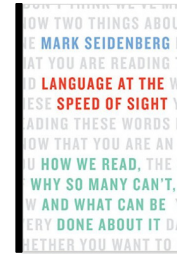
Wired for Oral Language



Speech to print leverages the brain's innate, biological wiring and organization for oral language.

9

Paradigm Shift



★ "We read with our eyes, but the starting point for reading is speech....Writing and speech are not inter-changeable but they are closely intertwined, each deeply affecting the other, like a couple of linguistic codependents with serious boundary issues."



10

Paradigm Shift

Speech to Print

/ s / = 's, c, sc...'
/ t / = 't, tt...'
/ o / = 'o, a...'
/ p / = 'p, pp'

stop



11

Speech to Print

Spelling is the Gateway

/ s / = 's, c, ss, sc...'
/ k / = 'c, k, ck, ch'
/ u / = 'oo, u...'
/ l / = 'l, ll'



12

It's SO Much More than Spelling

Spelling is the Gateway

- Spelling
- Decoding
- Reading fluency
- Vocabulary
- Reading comprehension
- Accuracy and complexity of written language
- Writing fluency and organization
- Academic performance across the curriculum
- Job potential and career success



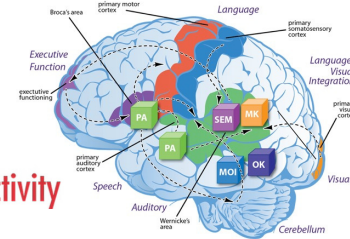
13

Key Concepts / Framework

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14

Word Study

We learn to read and write
through **word study**.



15

Word Study


We **continually** learn to read and write
new words through **word study**.



16

Multi-Linguistic

Word study is a systematic way of learning, practicing, and applying knowledge about the sounds, letters, and meanings of words to read and write words.




the language constructs of words

17

Multi-Linguistic

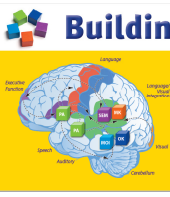
Sounds Phonology
Letters Orthography
Meanings Morphology



18

5 Block Model

Building the Brain for Literacy™



Phonological Awareness (PA)	Sounds
Orthographic Knowledge (OK) Mental Orthographic Images (MOI)	Letters
Semantic and Vocabulary Knowledge (SEM) Morphological Awareness and Knowledge (MK)	Meanings

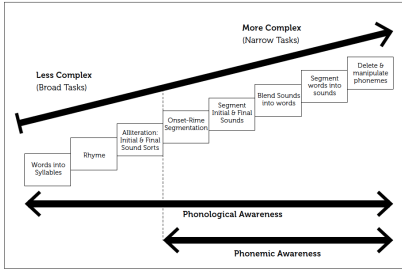
www.spell-links.com

PA: the ability to think about, talk about, and manipulate the meaningful sounds of words
OK: knowledge of letter-sound relationships and common letter patterns and spelling rules
MOI: clear and complete representations of words stored in long-term memory
SEM: knowledge of word meaning
MK: knowledge of letter-meaning relationships and the ability to think about, talk about, and manipulate the morphemic elements of words

19

Continuum of PA Instruction

Figure 2 Phonological Awareness Continuum (Schuele & Boudreau, 2008)



The diagram illustrates a continuum of phonological awareness instruction. It starts with 'Less Complex (Broad Tasks)' on the left and moves to 'More Complex (Narrow Tasks)' on the right. The tasks are arranged in a staircase pattern, showing a progression from simple to complex. The tasks include: Words into Syllables, Rhyme, Alteration (Initial & Final Sound Sorts), Onset-Rime Segmentation, Segment Initial & Final Sounds, Blend Sounds into words, Segment words into sounds, and Delete & manipulate phonemes. Below the staircase, two horizontal arrows indicate the scope of the skills: 'Phonological Awareness' (covering the entire range) and 'Phonemic Awareness' (covering the more complex tasks on the right).

20

Continuum of PA Instruction

- **Word:** blending, segmentation, deletion
- **Syllable:** blending, segmentation, deletion
- **Rhyme:** recognition, generation, categorization
- **Onset and Rime:** blending, segmentation
- **Phoneme:** isolation, initial, ending, medial
- **Phoneme:** identifying/matching, categorizing
- **Phoneme:** blending, segmenting
- **Phoneme:** deletion, addition, substitution

21

5 Block Model

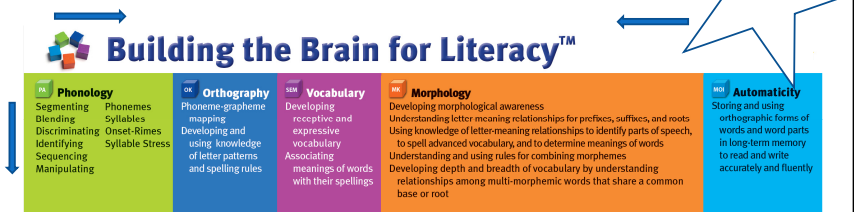
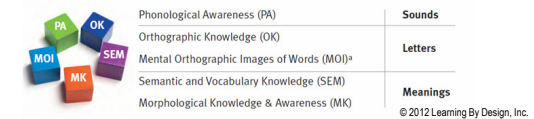
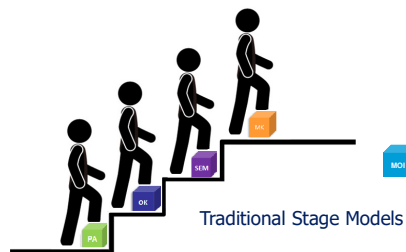


Figure 1: Five Block Model for Teaching Word Study



22

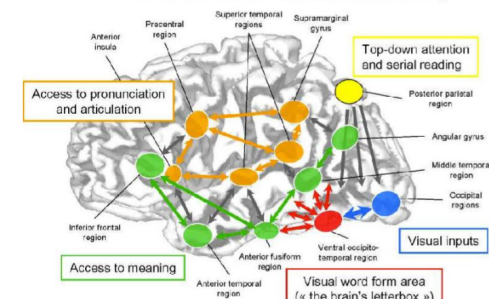
Traditional Instruction



23

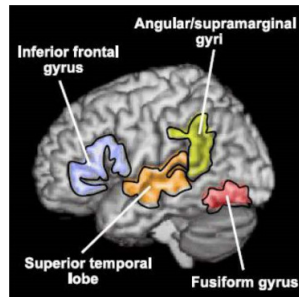
Current Models

A modern vision of the cortical networks for reading



24

Connectionist Model

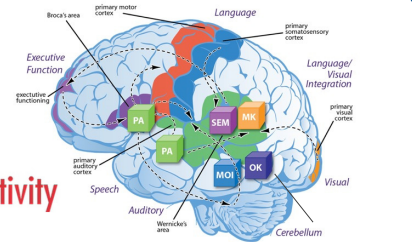


25

Connectionist Model

Develop
Connect
Integrate

Functional Connectivity



26

Connectionist Model

Repertoire Model
Multi-linguistic Model
Connectionist Model



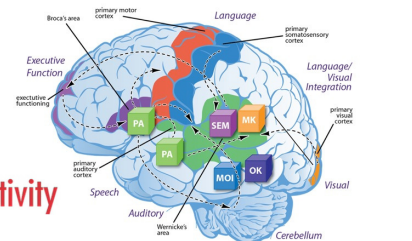
27

Key Concepts / Framework

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28

Meta-Linguistic



Meta-linguistic

Gets students **thinking and talking** about the *sounds, letters, and meanings* of words.

Creating independent linguistic problem solvers.

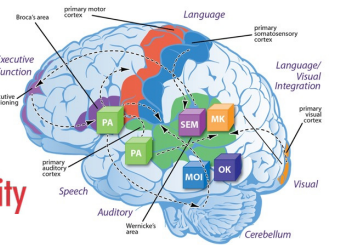
29

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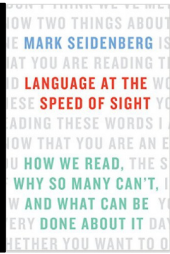
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Connect
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30

Statistical Learning



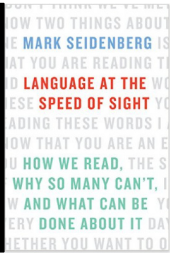
★ "hunters and gatherers of statistical data"

★ "The reader has to be able to count, not in the sense of counting the number of pitches thrown by the sixth inning but rather in the sense of implicitly tracking statistical regularities in language and how they relate to the world as it is experienced."



31

Statistical Learning



★ Learning to read is the process of acquiring the several types of statistical knowledge that support rapid and efficient comprehension, starting with phonological structure, orthographic structure, the mappings between orthography and phonology, vocabulary, and grammar. Deficits in any of these areas can seriously interfere with children's progress and adult proficiency. These types of knowledge differ -- spelling is not the same as vocabulary or grammar -- but they are all statistical, involving the frequencies and co-occurrences of the elements out of which they are composed."

32

Statistical Learning

Statistical probability / likelihood for orthographic patterns to occur.

Example:

The short vowel /e/ sound
is most frequently spelled with the letter 'e'.

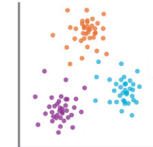
Exceptions include 'any, head, said, friend...'



33

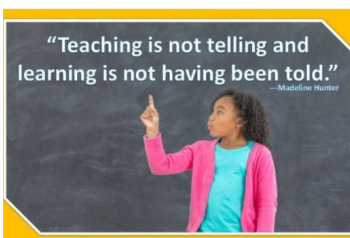
Statistical Learning

Statistical Learning



34

Paradigm Shift



35

"Sight" Words

Lexicon

High Frequency Words

Low Frequency Words

Regular
"cat"Irregular
"laugh"Regular
"lampoon"Irregular
"plaid"

Repeated,
meaningful,
exposures

Frequency and orthotactic probabilities
affect development of MOI.

36

"Sight" Words

Any word becomes a sight word when its spelling (letters) is fully connected to its pronunciation (sounds) and meaning in memory. Ehri



37

Statistical Learning



Repeated,
meaningful,
exposures

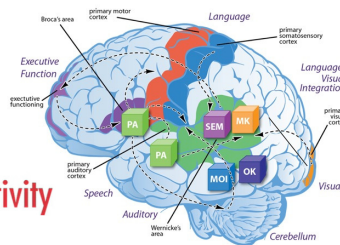
38

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39

5 Block Model



Building the Brain for Literacy™

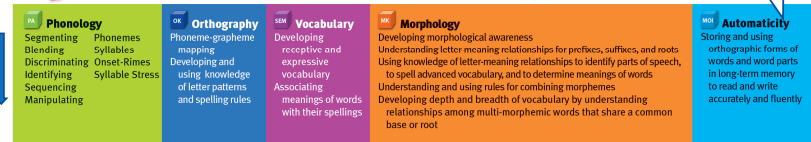



Figure 1: Five Block Model for Teaching Word Study

PA	Phonological Awareness (PA)	Sounds
OK	Orthographic Knowledge (OK)	Letters
MOI	Mental Orthographic Images of Words (MOI) ^a	
SEM	Semantic and Vocabulary Knowledge (SEM)	Meanings
MK	Morphological Knowledge & Awareness (MK)	


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40

Phonological Awareness



1 Sound It Out & 2 Check the Order



Sound Boxes


SPELL-Links® Word Study Resource

Say the word out loud, one sound at a time. As you say each sound, write the letter or letters used to spell each sound in the sound boxes of a single row.

When you have finished, cover the word. Sound out the word again; as you say each sound, uncover one or more letters, moving left to right, and make sure the letters are in the same order as the sounds coming out of your mouth.

41

Phonological Awareness



Jenny

ea | ea | ve

ee | h | ee | d | le

ee | s | q | u | ee | ze

ee | r | ee | ll | y


ee | G | ee | f | s

ee | T | W | ee | t


3rd grade

42

Phonological Awareness



3 Catch the Beat



Syllable Boxes

1					
	2				
		3			
			4		
				5	
					6

SPELL-Links® Word Study Resource


First, say the word and tap out the number of syllables in the word. Then find the row with the same number of syllable boxes that you tapped out for the word.

Next, say the word again, one syllable at a time. As you say each syllable, write the letter or letters used to spell each syllable inside a single box.

When you have finished, make sure there is at least one vowel letter in each box.

43

Syllable Division



robot

cabin

44

Set for Variability

Set for Variability

Ability to apply one's vocabulary knowledge and phonological ability to the incorrect decoding of a word and correct for mispronunciation.

"Mispronunciation correction"

Correlated with vocabulary knowledge, phoneme deletion, word decoding ability. Tunmer & Chapman, 2012

45

Set for Variability

Linguistic problem solving.

Underscores the importance of multi-linguistic instruction and explicit teaching of mispronunciation correction strategies.



46

Set for Variability



47

Phonological Awareness

4 Listen Up & Help This Mess

5 A Little Stress Will Help This Mess

SPELL-Links® Word Study Resource

As you say a word out loud, tap out the syllables you hear. Then locate that number of syllables in the list of eight common syllable stress patterns.

Eight Common Syllable Stress Patterns

One Syllable - Stressed
All one syllable words are stressed.
EAT
SCHOOL

Two Syllables - First Syllable Stressed
GIANT
PICTURE
HEATING

Two Syllables - Second Syllable Stressed
TODAY
HEAD
ALLOW



Three Syllables - First Syllable Stressed
ENERGY

Three Syllables - Third Syllable Stressed
entertain
jazz
volunteer

Four Syllables - Second Syllable Stressed


49

Phonological Awareness





50

Phonological Awareness



pan
bad
pat
mat
tan
...




pen
bed
pet
met
ten
...

51

Orthography: LSRs

Letter-Sound Relationships



friend

bed

met

ten

any


head

said

52

Orthography: LSRs

Letter-Sound Relationships



friend

bed

met

ten

any

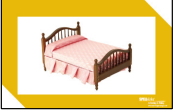
head

said

53

Orthography: LSRs

Letter-Sound Relationships



bed

friend

any

ten

met


head

said

54

Orthography: Patterns & Rules

Letter-Sound Relationships



bed

friend

any

ten

met

head

said

55

Orthography: Patterns & Rules

Traditional Word Sort Activities

wait	Short/long a (a-e, ai) Sort	bake
tape	nail	last
rain	plan	fail
gain	late	lake
sat	shade	tax
sale	wave	plain
sail	maze	pail

Short a

a-e

ai

tax

tape

fail

last

maze

gain

sat

shade

pail

plan

wave

sail

plain

late

rain

sale

wait


bake

nail


lake

56

Orthography: Patterns & Rules



plan
back
tap
mad
ran
...



made
rain
bake
plain
tape
plane
...

57

MOIs / MGRs

Fix The Funny Stuff

SPELL-Links® Word Study Resource

If your spelling of a word looks "funny"—and no other strategy can help—try different allowable spellings for the part of the word that looks "funny". Compare different spellings of the word and choose the spelling that looks "right". After confirming that the spelling of the word is correct, visualize the correct spelling and create a memory hook for the word.

friend

58

MOIs / MGRs

Fix The Funny Stuff

SPELL-Links® Word Study Resource

If your spelling of a word looks "funny"—and no other strategy can help—try different allowable spellings for the part of the word that looks "funny". Compare different spellings of the word and choose the spelling that looks "right". After confirming that the spelling of the word is correct, visualize the correct spelling and create a memory hook for the word.

59

Good-bye Word Wall

WORD WALL

Aa	Bb	Cc	Dd
any	blew	child	do
and	blue	chair	don't
are	book	can	deer
aren't	book	can't	deer
ask	beach	could	dash
at	beach	couldn't	
at	baby		

60

Hello SOUND Wall

Begin with the sound.

Integrate the sounds, letters, and meanings of words.

Write the words.

two	often	laugh	gym	of
laugh	laugh	laugh	busy	the
of	who	any	pretty	one
whole	many	said	are	done
guess	been	again	want	come
	ready	father	was	what
	friend			

61

More Good-byes...

Common practice:

- Writing each spelling word several times each
- Using flash cards for memorizing sight words
- Guessing a word using context clues when reading



62

More Good-byes...



Repeated,
meaningful,
exposures

63

Tweak It



64

Q & A



65