

Foundations of Learning to Read: Still of Paramount Importance!

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The Science of Reading!

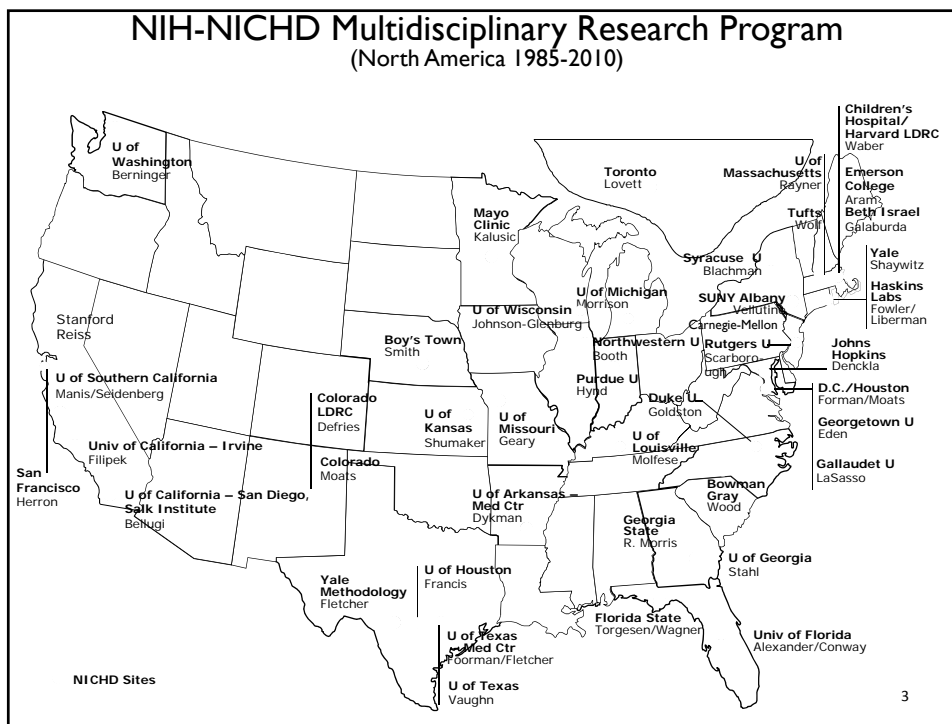
Much is known about:

- how a proficient reader reads
- how novice learners acquire reading skill
- what the brain is doing to support reading
- what causes reading difficulties

...and many other aspects of reading

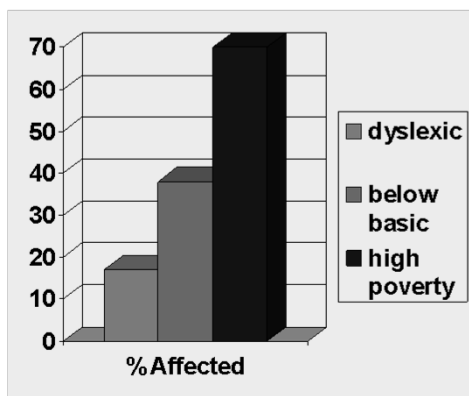
Of course, much remains to be learned! (Seidenberg, 2014)

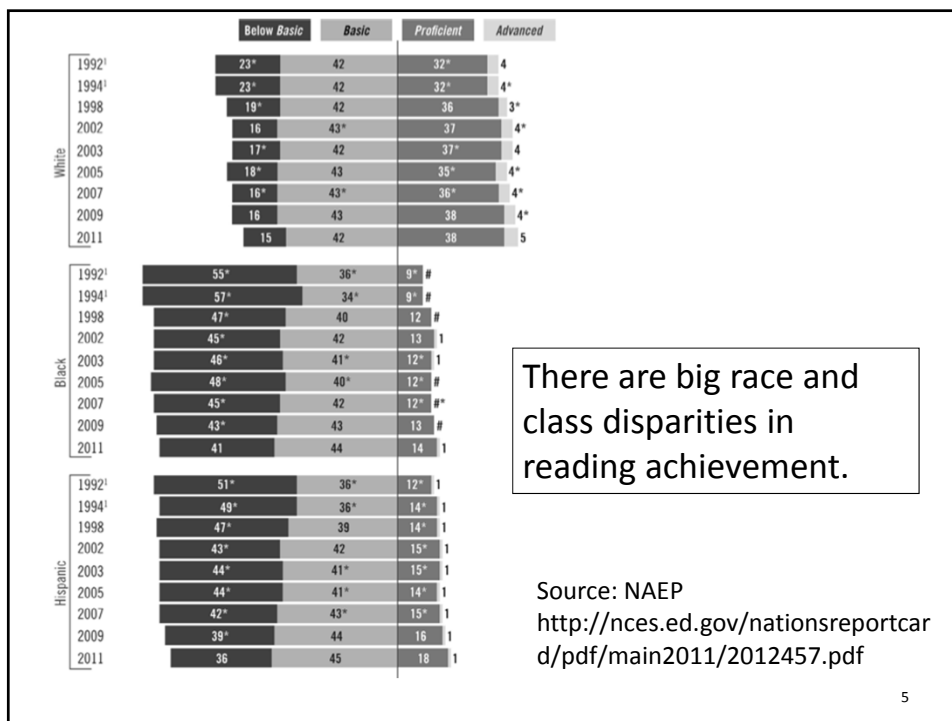
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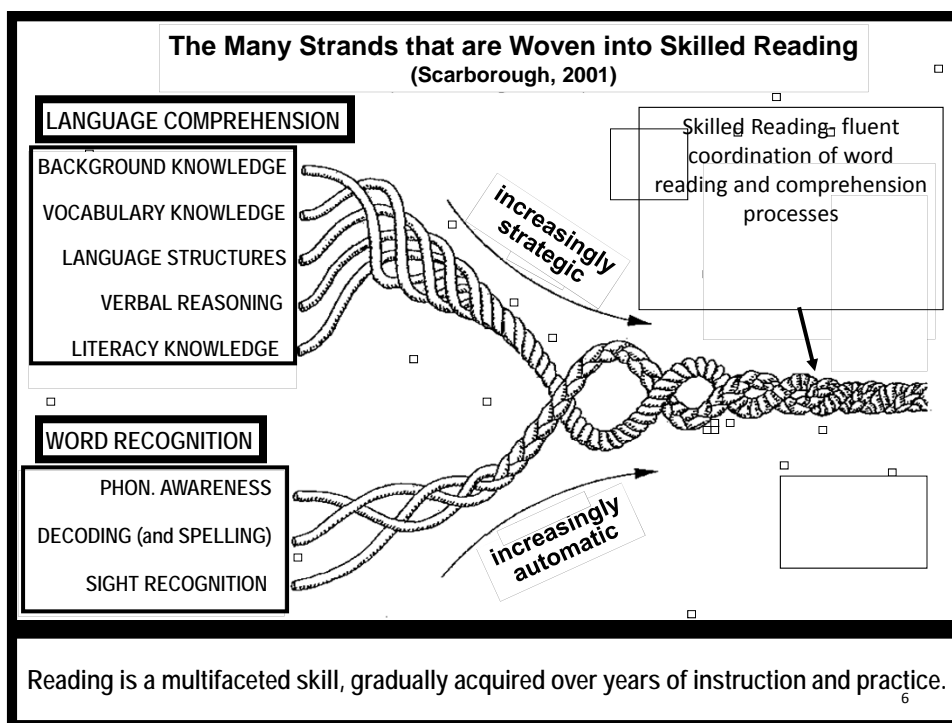
At a certain point (or a certain age) you begin to wonder:

*If we know so much about reading,
how come there are so many poor readers?*



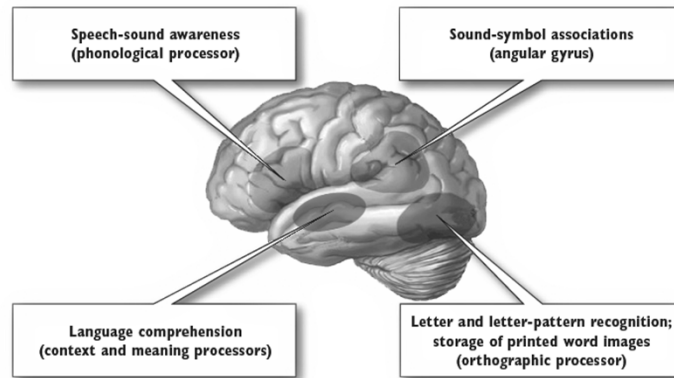


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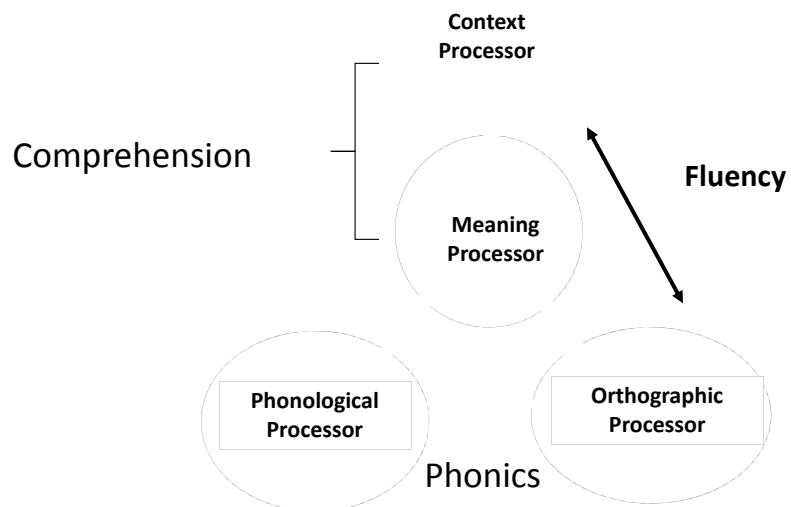


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Areas of the Brain That Support Reading



How Do We Learn to Read Words?



What Sound Does Each Letter
Represent?

f **k** **n**

η



θ



✓
S

I

p. 23

Practice

f

k

n

I

θ

ŋ

š

Blend Sounds Into Words

ɪn, θɪn, θɪŋ, fɪʃ

fɪn, ʃɪn, θɪk

kɪn, kɪŋ, kɪk

kɪŋk, ɪŋk, fɪŋk, θɪŋk

“Sight” Words

ænd ə ðə wʌz

Read Phrases and Sentences

1. 𐌸𐌹𐌿 ænd 𐌸𐌹
2. waz a fīnk
3. 𐌸īnk in īnk
4. kīk ðə šīn
5. kīnk ðə 𐌸īn
6. fīšīn waz a kīk.
7. ðə kīn waz fīšīn.
8. ðə kīn waz 𐌸īn.
9. ðə fīš fīn waz 𐌸īn.
10. waz ðə 𐌸īn a fīš?

Read the Story

ðə kīn waz 𐌸īnkīn av fān ænd
 wēntīd tu fīš. “aj wēnt a 𐌸īk fīš,”
 𐌸ēt ðə kīn. ðə kīn kēt a 𐌸īn fīš.
 “aj wīš ðə fīš waz 𐌸īk,” wīšt ðə
 kīn. ðə kīn šēkt ðə fīš ænd kāt
ðə kīnk in ðə 𐌸īn. ðə fīš wīnkt tu
ðə kīn!

Printed Word Recognition: The “Layer Cake” of Language

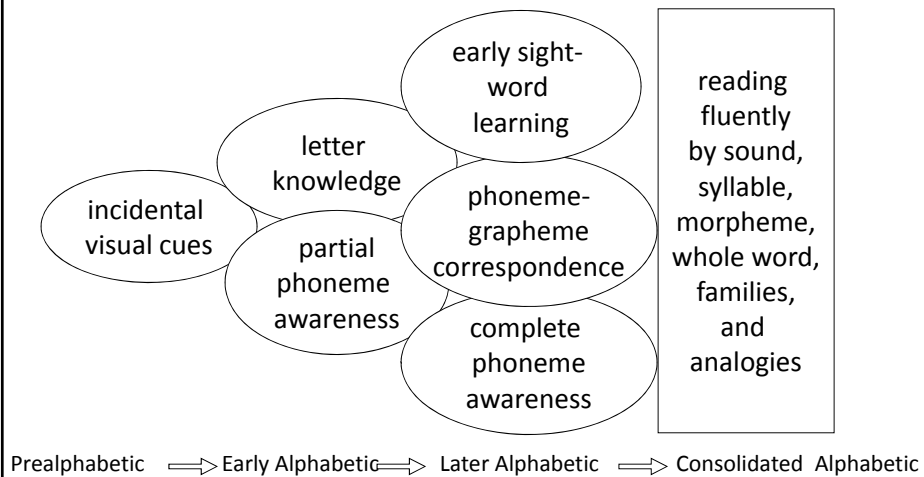
astro – naut (morpheme)
 as-tro-naut (syllable)
 a-s-t-r-o-n-au-t (grapheme)
 a-s-t-r-o-n-a-u-t (letter)
 [ă s t r ə n ɔ̃ t] (phoneme)

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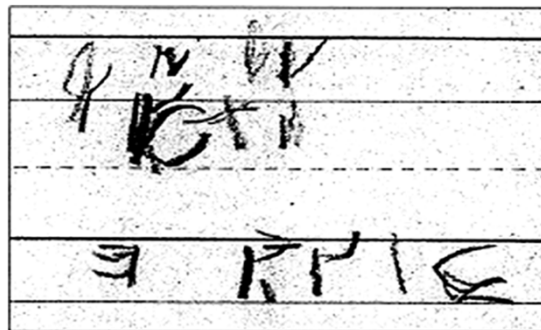
Chall’s Reading “Stages”: Reading is a Moving Target, Changing Through Development

- Prereading; Prealphabetic (Pre-K)
- Initial Reading or Alphabetic Decoding (K-1)
 - early phonetic
 - later phonetic
- Confirmation and Fluency (2-3)
- Reading to Learn (4-6)
- Multiple Points of View (7 +)
- Construction and Reconstruction (5)

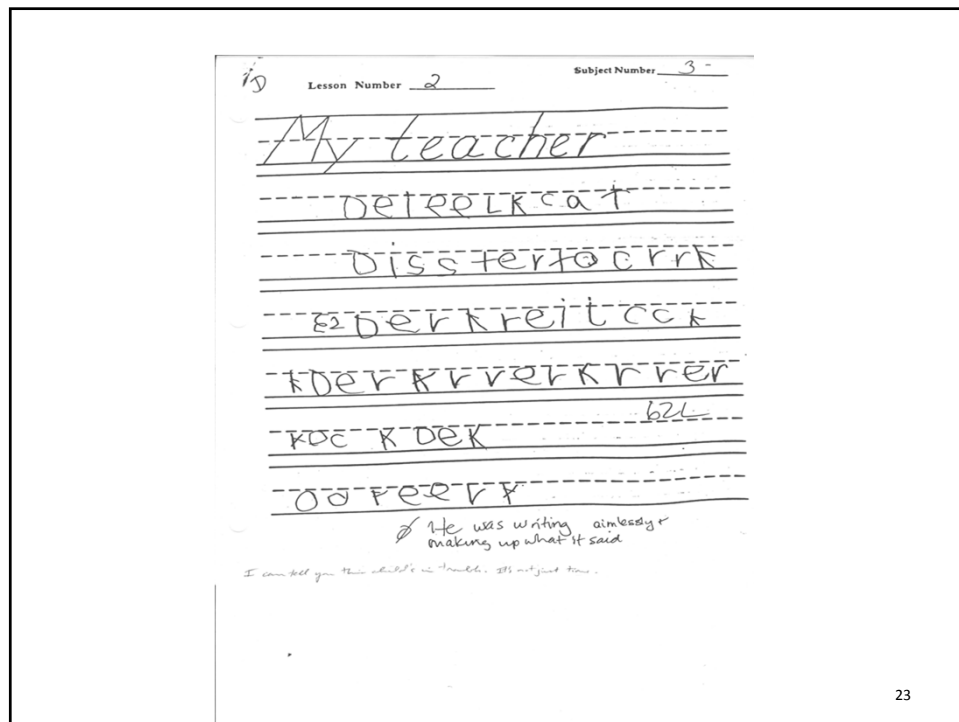
Ehri's Phases of Word-Reading Development



Prealphabetic Writing



Beginning kindergartener, September.



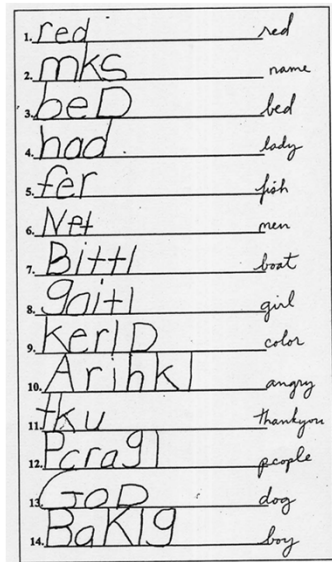
The Early Alphabetic Phase

- Identifies first consonant in word; needs to learn to segment all sounds.
- Relies on letter names to derive the sound-symbol match; needs to learn sounds and letter names, and the difference.

YEL = will WOH = watch

- Confuses similar words such as **horse** and **house**, **lake** and **like**; needs to decode the whole word, left to right, with sound-symbol links.

Early Alphabetic Writing



Sounds in Letter Names

A /ā/	J /j/ /ā/	S /ě/ /s/
B /b/ /ē/	K /k/ ā/	T /t/ /ē/
C /s/ /ē/	L /ě/ /l/	U /y/ /ū/
D /d/ /ē/	M /ě/ /m/	V /v/ /ē/
E /ē/	N /ě/ /n/	W /d/ /ü/ /b/ /l/ /y/ /ū/
F /ě/ /f/	O /ō/	X /ě/ /k/ /s/
G /j/ /ē/	P /p/ /ē/	Y /w/ /ī/
H /ā/ /ch/	Q /k/ /y/ /ū/	Z /z/ /ē/
I /ī/	R /ar/	

Complexities of Letter-Sound Correspondences

1. Letter names that do not have the sounds that the letters represent:
h, w, x, y
2. Letter names and sounds most likely to be confused:
c/s g/j w/y/u h/ch
3. Sounds (13/44) that are not in any letter name:
**/ă/, /er/, /g/, /h/, /ĩ/, /ng/, /ö/, /oi/,
/or/, /ou/ /th/, /th/, /sh/**

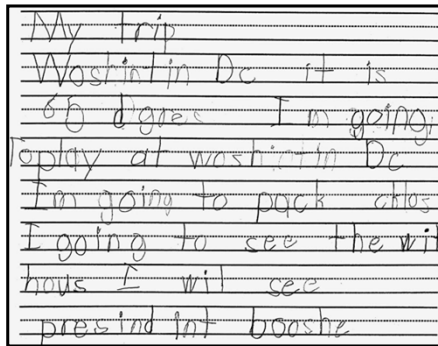
Later Alphabetic Phase

- Can sound out regular one-syllable words; can increase speed of whole word recognition once decoding is accurate.
- Phoneme awareness is well established.
- Phonetic spelling is a fine art; can represent almost every sound with a logical letter choice.
- Should progress to spelling patterns, words with more than one syllable, meaningful parts of words, and basic sight vocabulary.

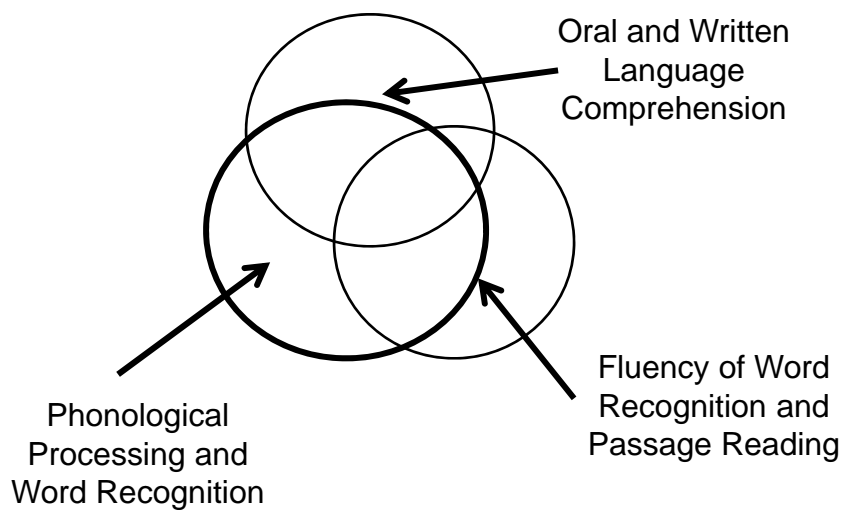
Later Alphabetic Phase Writing

My trip

Woshintin Dc it is 85 dgres Im going toplay at
washigtin Dc Im going to pack chlos I going to
see the wit hous I wil see presind int booshe

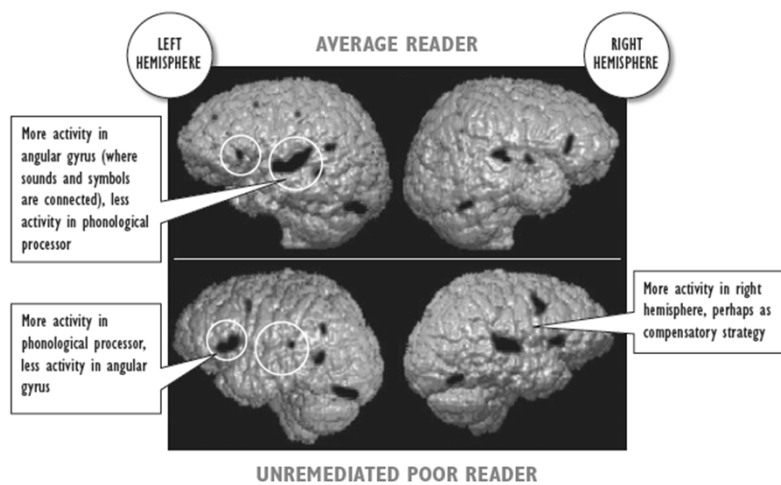


Subtypes of Reading Difficulty

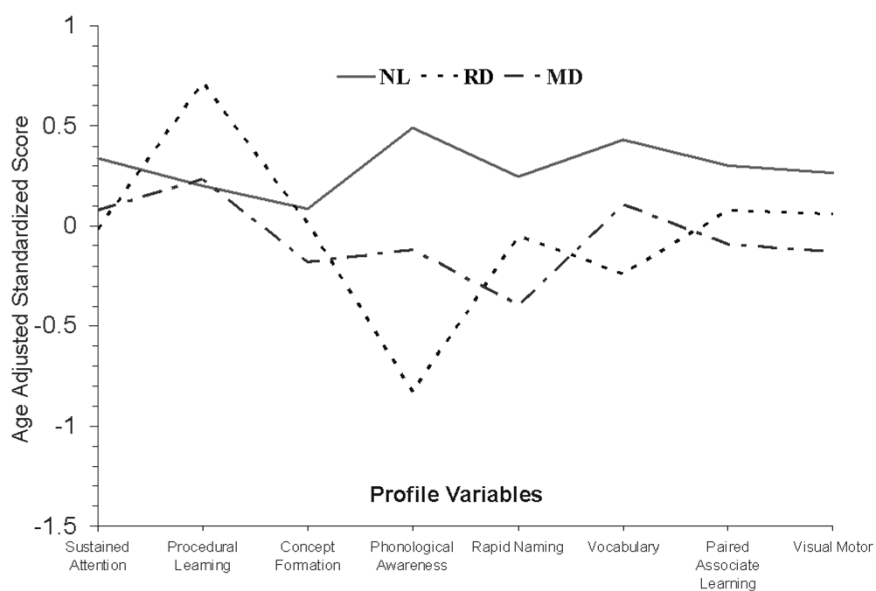


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Brain Images Comparing 9-Year-Old Average Reader and 9-Year-Old Unremediated Poor Reader

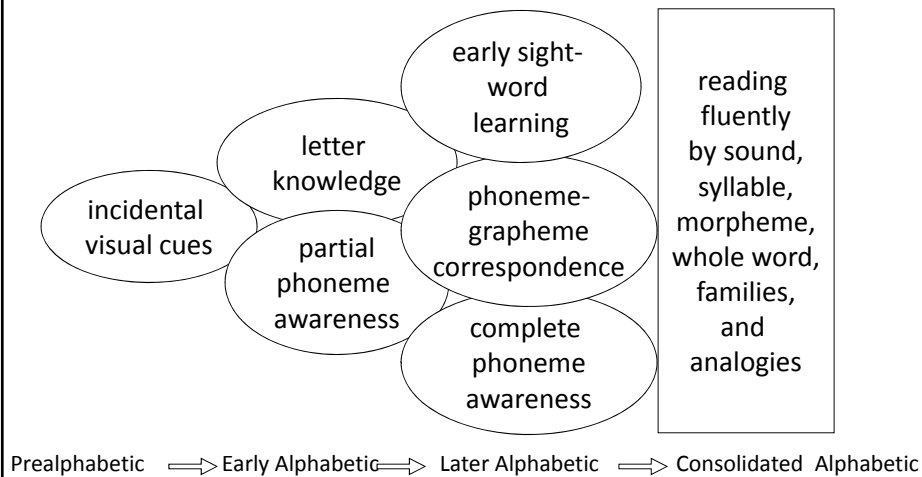


Distinct Profile of 2nd-3rd Grade Poor Readers



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Ehri's Phases of Word-Reading Development



Fluency/Orthographic Memory Problem

goo	(go)
ann	(and)
yel	(will)
hme	(him)
coc	(cook)
lot	(light)
jrs	(dress)
reh	(reach)
ntr	(enter)

1. Find the letter that this student uses for the /w/ sound. Why did she choose that letter?

2. Find the letter she uses for the /ch/ sound. Why did she choose that letter?

3. What does she think is the first sound in the word dress? Does that seem like a logical choice?

4. How does she spell long-vowel sounds?

What Does Tommy Need?

After you have completed the character map, write about Mudge. Please write neatly.

tough

tough

silly

silly

nice

big

Mudge

play/cats

strong

stog

slobbers

slobbers

Tall

Mudge is ^{very} nice. he does not be ruff with Henry.

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Mudge is ^{very} nice. he does not be ruff with Henry. he is vere play fall. He is Tall. He is vere big when He stands. He sloder a little.

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boy and ^{girl} ~~gollg~~ are ^{standing} ~~stening~~ outside.
 They look like they are ^{cold} ~~cood~~!
 They are ^{patiently} ~~waitting~~ pashane.
 They ^{both} ~~bot~~ ^{need} ~~ner~~ food. ^{their} ~~There~~
 mom and dad are going to
 open the dor. The cat
 is wait ing for Them

Should instruction emphasize something else?

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Tommy's Progress Report, Special Services

- Independent reading level "12" on the DRA
- Gained 3 levels since September
- Instruction has focused on nonfiction, mystery, personal narratives, chapter books
- Identification of story elements, 80%
- Can judge whether the text makes sense
- Knows 100 2nd grade sight words
- Working on adjectives and verbs
- Spelling lessons on long vowel patterns, homophones, vowel teams, two syllable words, syllable division, r-controlled vowels, and inflectional suffixes
- Uses a spelling dictionary to look up words

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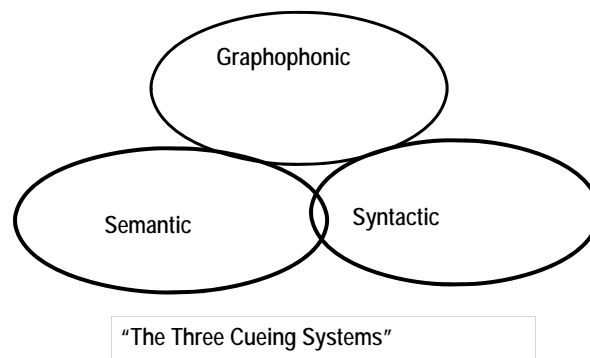
Basic Question: Are Meaning-Emphasis Programs the Most Effective?

Common beliefs/practices associated with meaning-emphasis programs:

- Phoneme awareness instruction is “over” by 1st grade; phonics instruction is “over” by 2nd
- Reading is primarily visual
- Phonics instruction is harmful for good readers
- Early emphasis on “higher level” language skills will accelerate reading development

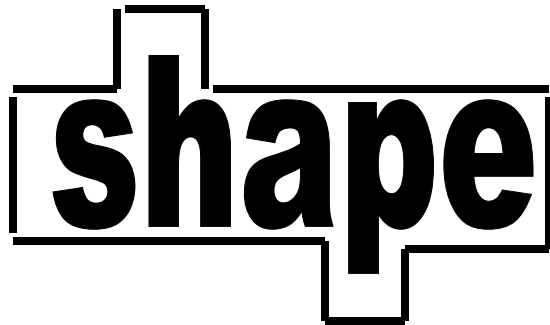
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Unsupported Conceptual Models



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For Example...



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Word Recognition Depends On
Phoneme-Grapheme Mapping



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The “alphabetic word wall.”

O
one
once
only
out
open
on
off



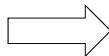
E
eye
eat
end
every
even

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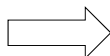
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“Making Words” (Not Systematic!)

i, u, k, m, n, p, p
up, in, ink/kin, pin, pun, pup,
pump, pink, mink, pumpkin



a, i, b, b, r, s, t
at, sat, rat, bat, bar, tar,
star, stir, stair, rabbits



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Unfortunate consequences, continued...

- “Phoneme awareness” doesn’t have to focus on phonemes
 - syllable counting
 - rhyming
 - matching a first sound
- Phoneme awareness doesn’t need to be directly assessed
 - “running records”

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The role of context...

- Context does not drive word recognition.
- Context is useful for deciphering the meanings of unknown words, once they are named or recognized.

(Perfetti, 2011)

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Misuse of context in instruction...

- “....Don’t know that word? Well just keep reading and see what might make sense here...”



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What Works? Multi-component Lesson Framework (1)

- “Sound warm-up” – phoneme awareness
- Direct, explicit teaching of word or language concept (phonics, etc.)
 - Modeling
 - Guided practice
 - Supported independent practice
 - Application in context



Multi-component Lesson (2)

- Fluency development
 - speed drills
 - repeated reading
 - Partner work
- Vocabulary building
- Oral and silent text reading for comprehension, including sentence level work
- Spelling and writing

