Teaching with Deep Lexical Quality: Implications for Accuracy and Fluency

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Essential Questions

• What is the Lexical Quality Hypothesis?

• How might LQ inform instruction for all students?

• What are the implications for students who are inaccurate and/or dysfluent?
The Lexical Quality Hypothesis

- Charles A. Perfetti & Lesley Hart
  University of Pittsburgh

- Comprehension skill depends on word reading skill.

- Each word is composed of 3 constituents:
  PH, OR, and SE:

  - PH = phonology – how the word is pronounced
  - OR = orthography – how the word is spelled
  - SE = syntax / semantics – word meaning and part of speech

Rate Your Knowledge

- 0 = The word does not have meaning for you and you are not sure how to pronounce it.
- 1 = You recognize the word and have some idea of its meaning.
- 2 = You know the word well enough that you can define it adequately, but you don’t use it yourself.
- 3 = You “own” the word (i.e., you use the word with fluency in writing and/or speaking).
Consider these Conditions

COUNT –
- same PH and OR, but multiple meanings (meaning polysemy)

BASS –
- same OR, but different PH and SE (homography)

SEED / CEDE –
- same PH, but different OR and SE (homophony)

- PH = phonology – how the word is pronounced
- OR = orthography – how the word is spelled
- SE = syntax / semantics – word meaning and part of speech

Can you think of example words for each of these three conditions?
Incarcerate
A Reader Could...

- pronounce it accurately, knows it is a negative thing but cannot define it.
- misread the word as ‘in – cark – rate’, never getting to meaning.
- read the word accurately and define it, but be inconsistent in its pronunciation.
- read and understand the meaning of the word, but cannot always spell it accurately.

Which Constituents are Unfamiliar to You?

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Phonology
Orthography
Semantics / Syntax
Skilled Readers

- Have more high-quality lexical representations (PH / OR / SE) of many words.
- Can use their foundational knowledge to figure out words that they do not know how to read / spell / comprehend.

Weak Readers, by Comparison...

- Have fewer high-quality lexical representations of words.
- Are unable to use foundational knowledge to figure out words that they do not know how to read / spell / comprehend.
Various Degrees of Orthographic Weakness

Those who sometimes spell a word accurately and sometimes do not.

Those who misspell a word the same way all the time: birthdae

Those who misspell a word multiple ways: birthda, berthday, birthdae, brthda, brthday, etc.

fMRI and Brain Research
Left Hemisphere - Good Reader’s Brain

- Broca’s Area
  - Speech Sound System
  - Phonological Processor

- Sylvan Fissure
  - Communication between Broca and Wernicke’s Area

- Wernicke’s Area
  - Oral Language Comprehension

- Angular Gyrus
  - Connects Reading / Writing systems for decoding / spelling

- Occipital Lobe
  - Orthographic Processor
An Additional Layer for SE

- Used to think that basic phonics and language comprehension was enough.

- Increasing understanding of the role of ‘morphology’ and its ability to ‘bind’ decoding / vocabulary, and hence, comprehension. (Term: Constituent Binding)

- Morphology has a scope and sequence; use this understanding to inform instruction of advanced decoding / vocabulary.

Deep Lexical Quality is Key!

Instructional practices must include as many layers of language as possible to ensure a memory trace:

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Let’s Try an Example...

EXOTIC

- Phonological form
- Orthographic form
- Morphological form
- Etymological form
- Semantic form
- Syntactic form
- How used in connected text? Speech?

Ensure accuracy and fluency at each level...

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Teach to Support Deep Lexical Quality

- Instruction at all levels must account for the various layers of language.
- Tell students as much as you can about words / phrases / sentences / paragraph organization. This supports memory.
- Memory traces best made with multiple layers of language knowledge.
- Continue use of assessments and ‘diagnostic instruction’ for all areas of language.

Taking Stock

- Questions?

References:

I thank you...

.....for your time and attention today. This is an exciting symposium! You truly can make a difference in the lives of so many students!

Carol

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## Multiple Layers of Language

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