Session 1:
Introduction to the Science of Reading

MS/HS Literacy Teacher Professional Development Series

Today's Objective

By the end of this session, participants will be able to:

- ★ define the science of reading and how it applies to grades 6-12.
- ★ identify the strands of Scarborough's Reading Rope.
- ★ describe how knowledge of the rope can elevate your content area lessons.

The Science of Reading and How it Applies to Middle and High School

- The Science of Reading is research that details how children learn how to read and how to address the challenges related to reading and writing.
- 66 percent of 8th grade students fall below the proficient level in their ability to comprehend the meaning of text at their grade level.
- The majority of middle and high school teachers are not trained on teaching children how to read and are not equipped to help struggling readers.
- Content area texts at the middle and high level are increasingly complex, and students struggle to extract meaning from those texts.

Defining the Science of Reading

- "The science of reading is a vast, interdisciplinary body of ***scientifically-based research*** about reading and issues related to reading and writing."
  - For studies to be considered "scientifically-based research," they must:
    - be experimental/quasi-experimental;
    - have detailed description of study methods to allow for replication or refinement of findings;
    - be published in a peer-reviewed journal

SOURCE: The Reading League, "A Defining Moment."

Defining the Science of Reading

- “This research has been conducted over the last five decades across the world, and it is derived from thousands of studies conducted in multiple languages.
- The science of reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties.”

SOURCE: The Reading League, “A Defining Moment.”

Defining the Science of Reading

- The science of reading is derived from researchers from multiple fields:
  - cognitive psychology,
  - communication sciences,
  - developmental psychology,
  - education,
  - implementation science,
  - linguistics,
  - neuroscience,
  - school psychology

SOURCE: The Reading League, "A Defining Moment."

What the Science of Reading is NOT

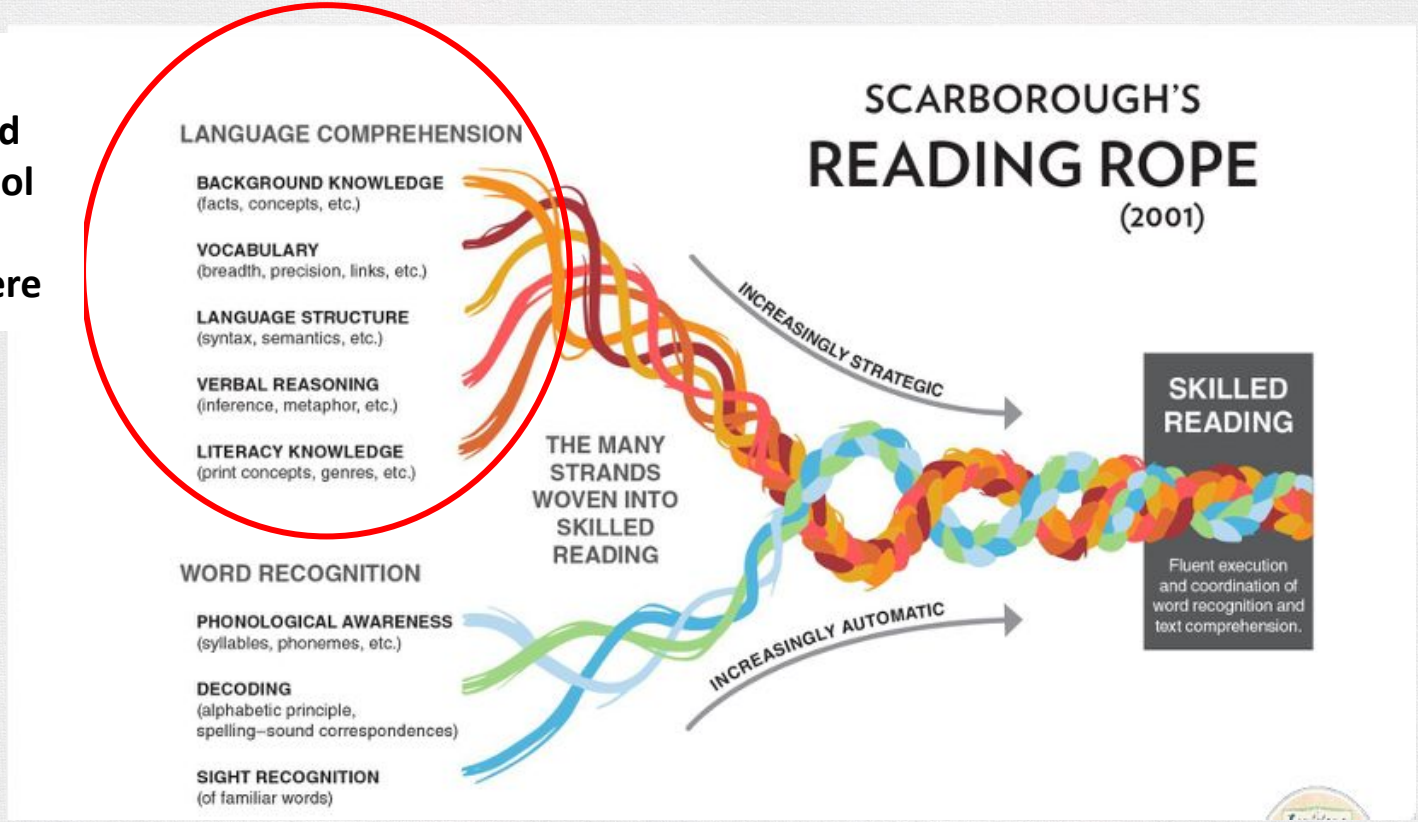
- The science of reading is not:
  - an ideology or philosophy,
  - a fad, trend, new idea, or pendulum swing,
  - a political agenda,
  - a one-size-fits-all approach,
  - a program of instruction
  - a single, specific component of instruction such as phonics

SOURCE: The Reading League, "A Defining Moment."

The Simple View of Reading

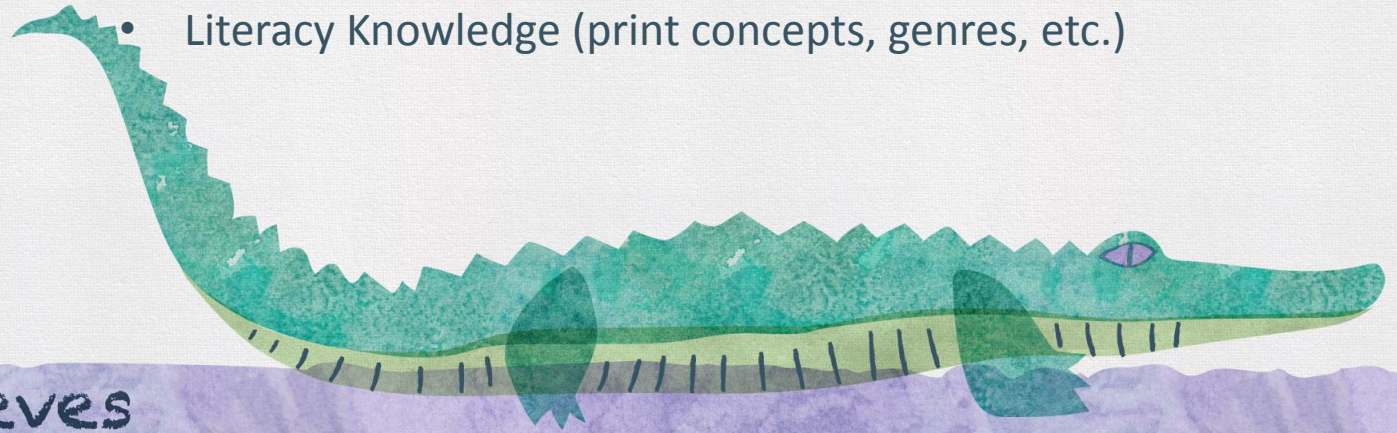
(Gough & Tunmer, 1986; Hoover & Gough, 1990)

Middle School and High School focus is usually here



Language Comprehension

- Background Knowledge (facts, concepts, etc.)
- Vocabulary (breadth, precision, links)
- Language Structure (syntax, semantics, etc.)
- Verbal Reasoning (inference, metaphor)
- Literacy Knowledge (print concepts, genres, etc.)



Word Recognition

- Phonological Awareness (syllables, phonemes, etc.)
- Decoding (alphabetic principle, spelling-sound correspondences)
- Sight Recognition (of familiar words)

Skilled Reading

- As the strands associated with word recognition become *increasingly automatic* and the strands associated with language comprehension become *increasingly strategic*, they weave together to reflect *skilled reading* - the fluent execution and coordination of word recognition and text comprehension.
- As students become skilled readers, they are able to read and meaningfully engage with complex texts.
- Struggles with any of the strands of the rope will inhibit students' movement to skilled reading.

Implications for Content Areas

- Until students are skilled readers, they are not able to read and comprehend the information from the different content areas.
- You do not have to be a reading teacher or spend a lot of time creating activities to help build skilled readers within your discipline.
- Integrating the Science of Reading into your current lessons is as easy as asking yourself what teacher moves you can make in different strands of the rope that will help students read and comprehend the material better.

Examples of Teacher Moves to Implement the Science of Reading

- providing vocabulary practice prior to starting a section or unit, either through a list of words and definitions or using a program such as quizlet (pictures can even be added for special populations)
- allowing students early access to the text with a read-aloud version if possible (many curricula and programs offer this now)
- either before or after a whole-class read aloud of the text, allowing students to partner read the section to build their fluency and understanding
- offering a paired, lower level text, that allows students to build their background knowledge on a topic before reading the curricula-based text

Final Thoughts

- Develop your understanding of the nuances of the code - this will help you diagnose and adjust instruction as needed at the middle school/high school level.
- When planning your daily lessons, consider what teacher moves you can add that support students in an area of language comprehension.
- If you are required to or have the ability to do small group instruction, group students homogeneously and present the materials while focusing on one of the strands.

Engage

Reflect on your curriculum or the current lessons.

- How can your knowledge of the science of reading elevate these lessons?
- What is one thing you can implement that will build students' capacity in your content area using the Science of Reading?

Question or Suggestions?

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