What SLPs need to know about reading comprehension

Mindy Sittner Bridges- University of Kansas
Tiffany P. Hogan- University of Nebraska- Lincoln

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Overview

• Components of reading comprehension
• Assessment of reading comprehension
• Reading comprehension instruction
• Clinical implications
• Questions/Answers
Reading comprehension

- GOOD news: We know a lot about how to teach students to decode words
  - Research focus over last three decades
  - Components of decoding well understand
  - Instructional materials available to teach decoding
- NOT SO GOOD NEWS: We still have a lot to learn about reading comprehension
  - Reading comprehension is a complex skill that is broken down into many other complex skills
What is reading comprehension?

- RAND Reading Study group defined reading comprehension as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language.”
Reading comprehension

• Reading is an active and complex process that involves
  • -Understanding written text
  • -Developing and interpreting meaning
  • -Using meaning as appropriate to type of text, purpose, and situation

(NAEP Framework, 2009)
Reading comprehension

• “...much of the information needed to understand a text is not provided by the information expressed in the text itself but must be drawn from the language user’s knowledge of the person, objects, state of affairs, or events the discourse is about.”
  • van Dijk & Kintsch (Strategies of Discourse Comprehension)
Importance of reading comprehension

“Reading ability correlates with almost everything that a democratic education aims to provide…”
Reading comprehension

• Good comprehension is imperative in today’s society
  • “The academic skills demanded by many entry-level jobs today are at a higher level than the academic skills required for postsecondary education.”
  • “What students require to function in the 21st century workplace is better technical reading skills for understanding documents and quantitative material, not more reading of prose, poetry, and other literary forms.”
  • “To acquire these other skills, students need to be taught reading in all content areas, not just in English language arts.”

(Dagget, International Center for Leadership in Education)
Reading for Understanding Initiative

• Reading comprehension has become a top research priority
• Institute of Education Sciences has recently funded the Reading for Understanding Initiative
  • Goal is to increase our understanding of both the underlying components of reading comprehension as well as instructional practices that will improve reading comprehension
• Language and Reading Research Consortium (LARRC)
  • The Ohio State University
  • University of Kansas
  • University of Nebraska - Lincoln
  • Arizona State University
  • Lancaster University (United Kingdom)
Simple View of Reading

• A framework for looking at reading components and development across time
The Simple View of Reading

Reading Comprehension

(Catts, Hogan, & Fey, 2003; Gough & Tunmer, 1986; Hoover & Gough, 1990)
The Simple View of Reading

Reading Comprehension

Word Recognition

(Catts, Hogan, & Fey, 2003; Gough & Tunmer, 1986; Hoover & Gough, 1990)
The Simple View of Reading

Reading Comprehension

Word Recognition

Listening Comprehension

(Catts, Hogan, & Fey, 2003; Gough & Tunmer, 1986; Hoover & Gough, 1990)
Reading changes over time

Reading Comprehension

Word Recognition

Listening Comprehension

(Catts, Hogan, & Fey, 2003; Gough & Tunmer, 1986; Hoover & Gough, 1990)
The Simple View of Reading

Reading Comprehension

Word Recognition

Listening Comprehension

(Catts, Hogan, & Fey, 2003; Gough & Tunmer, 1986; Hoover & Gough, 1990)
Basic and higher-order language skills related to reading comprehension

• Basic skills:
  • Vocabulary
  • Syntax
  • Morphology

• Emerge relatively quickly and easily for the majority of children
  • Form the foundation for higher-level skills
Basic and higher-order language skills related to reading comprehension

• Higher-level skills:
  • Text structure knowledge
  • Comprehension monitoring
  • Inferencing

• Layer themselves upon lower-level language skills
  • Especially important to using language for more complex purposes
Basic and higher order skills related to reading comprehension

- Measures of each of these higher-level skills explain significant amounts of unique variance in 8- to 11-year-old children’s reading comprehension, even when controlling for lower-level language skills, working memory, and word-reading abilities (Cain et al., 2004)
Assess basic language skills

• Vocabulary
  • Standardized test: PPVT, EVT
  • Informal measures
    • Language sample analysis
    • Curriculum-based: Pre-Post test of words related to thematic unit

• Syntax
  • Standardized tests: subtests from CELF, TOLD
  • Informal measures
    • Language sample analysis

• Morphology
  • Standardized tests: TEGI, subtests from CELF, TACL
  • Informal measures
    • Language sample analysis
    • Form new words using root words plus taught prefixes and affixes
Assess higher-order language skills

- Much more difficult to assess
- Text structure
  - Standardized assessment of narrative language: TNL
- No standardized tests for inferencing or comprehension monitoring
• Assessment is tricky—can assess at variety levels (Kamhi, 2008)
  • Elementary level (literal)
  • Analytical (critical/interpretive)
  • Comparative (creative)

• Reflected in types of questions asked
  • Text-related questions (Charlotte’s Web)
    • What is a runt pig?

• Beyond-text questions
  • Why would Fern’s father believe it was okay to kill the pig?
Reading comprehension instruction

• Is more difficult and complex than teaching word reading
  • Complex skills such as inferencing, monitoring, background knowledge, oral language skills
  • Also depends on factors such as motivation and attention
• Many assume students will learn to comprehend text merely by reading text
  • True for some
  • NOT true for many
Instruction related to reading comprehension

• Increased focus on evidence-based interventions has spawned many investigations on the effectiveness of stimulating basic and higher-level language processes to in turn improve reading comprehension
  • McKeown, Beck, Omanson, & Perfetti, 1983
  • Nelson & Stage, 2007
  • van Kleek, 2008
  • Williams et al., 2009
Basic skills

• Evidence that instruction on basic level skills does impact those particular skills (i.e., vocabulary intervention affects vocabulary knowledge)
  • Less evidence showing impact on overall reading comprehension scores

• Doesn’t mean to not include instruction in vocabulary, morphology, and syntax
  • But you need to address higher-level skills as well
• Text structure
  • Narrative
    • Story structure
  • Informational text/nonfiction
    • Teach components of different types of informational text
    • Teach words associated with information text (i.e., compare, contrast, first, next, similar, different)

• Comprehension monitoring
  • Summarizing, asking and answering appropriate questions, finding incongruent information in text

• Inferencing
  • Pre-reading activities
  • During reading- stop and think-aloud
  • Call on prior knowledge
  • Teach words that help make connections
Intervention addressing multiple language domains

- Williams and colleagues (Williams, Stafford, Lauer, Hall, & Pollini, 2009)
  - Second graders in 10 classrooms
  - 15 45-minute semi-scripted sessions embedded within classroom curriculum
    - Expository text
  - Tested a supplemental classroom intervention designed to build a full complement of language skills, including both lower- (vocabulary, grammar) and higher-level skills (text structure knowledge)
  - Also explicitly taught text structure (compare-contrast)
• Results:
  • Students’ lower- and higher-level language skills improved in several key areas, including vocabulary and text structure knowledge
  • Also benefitted overall reading comprehension
  • Evidence that addressing multiple language domains in one intervention improves comprehension-related skills
Comprehension strategies

• Both National Reading Panel (2000) report as well as recent IES publications (Improving Reading Comprehension in Kindergarten through 3rd Grade, 2010) provide evidence for strategy instruction
  • Summarizing, using graphic organizers, etc.
• Have to MODEL strategy use for students across multiple lessons/occasions
  • Have to be smart about implementing strategies
    • Example: KWL (Know-Want-Learn related to science)
• Good strategy use will not magically turn a poor reader into a good reader
Teaching knowledge

• Inferencing, an important skill, relies on knowledge......
  • Hirsch (The Knowledge Deficit, 2006)-emphasizes building content knowledge
• Poor decoders perform better than good decoders when they have more knowledge of a topic (Recht & Leslie, 1988)
• Jones sacrificed and knocked in a run.
Importance of knowledge

• “The Obama administration will announce a new policy Wednesday making it much more difficult for the government to claim that it is protecting state secrets when it hides details of sensitive national security strategies such as rendition and warrantless eavesdropping, according to two senior Justice Department officials.”
  • Need to know: Rendition, warrantless wiretaps, and what a state secret might be
    • Is there a strategy available that leads one to a correct guess???

(Taken from Daniel Willingham’s article: Reading Is Not a Skill--And Why This Is a Problem for the Draft National Standards)
Motivational processes that contribute to comprehension

- Intrinsic motivation
- Self-efficacy
- Personal interest
- Beliefs about reading
Motivation and reading comprehension

- Concept Oriented Reading Instruction (CORI)- Guthrie et al., 2004, 2007; Guthrie, 2008
  - The primary aim of CORI is to improve students’ reading comprehension by increasing their reading engagement
- Enhance students’ reading engagement
  - Engagement= motivational processes and cognitive strategies, such as self-monitoring, are occurring simultaneously
  - “The engaged reader is intrinsically motivated to read.” (Guthrie et al., 2007)

CORI website: http://www.cori.umd.edu/research-projects/reading-engagement-project/overview.php
• Concept-based instruction
  • Increase knowledge of life science
  • Increase knowledge of scientific processes of observation and experimentation
• Concept directs students’ goal for reading
  • Increases engagement as students have a reason and focus for reading/learning
• Emphasize five instructional practices
  • Relevance
  • Choice
  • Success
  • Collaboration
  • Thematic unit [i.e., content]
Guthrie et al., 2004

- 3rd grade classrooms
- Incorporated 5 principle components
- Teachers explicitly taught six comprehension strategies over six weeks, then practiced integration of the strategies for next six weeks
  - Strategies:
    - Activating background knowledge
    - Questioning
    - Searching for information
    - Summarizing
    - Organizing graphically
    - Identifying story structure
- Taught within life science unit
  - Engaging- provides motivation because knowledge content goals provide purpose for using strategies
Guthrie et al., 2004

- Results - when contrasted with other instructional techniques, students in CORI program showed greater gains in both comprehension and content knowledge
What was the last book you read or utilized in therapy or in a classroom?
Type of text

• Narrative text can vary in complexity but typically follows a single structural pattern called story grammar
• Informational/expository text comes in a variety of patterns
  • Description
  • Sequence
  • Compare-contrast
  • Cause-effect
  • Problem-solution
• Students need exposure to all kinds of text
• Students need instruction in how to comprehend all kinds of text
Informational text

- In 1st grade classrooms, students spent an average of only 3.6 minutes each day interacting with informational text—even less in low-socioeconomic-status schools (Duke, 2000)
• Young students become familiar with its characteristics and conventions when teachers read aloud from informational texts (Duke & Kays, 1998)
• Students are more likely to select informational text for independent reading if their teacher has read it aloud to them (Dreher & Dromsky, 2000)
• Studies of the range of reading done by students and adults shows that less than 25% is done in narrative texts
  • Start early in teaching students to develop competence with multiple literacies
Improving Reading Comprehension in Kindergarten through 3rd Grade: Recommendations


• 1. Teach students how to use reading comprehension strategies.

• 2. Teach students to identify and use the text’s organizational structure to comprehend, learn, and remember content.

• 3. Guide students through focused, high-quality discussion on the meaning of text.

• 4. Select texts purposefully to support comprehension development.

• 5. Establish an engaging and motivating context in which to teach reading comprehension.
Reading comprehension and RTI

• Addressing reading comprehension in an RTI framework is more difficult than addressing decoding problems
  • Screening and progress monitoring
    • Lack of adequate measures
    • Which component of reading comprehension (i.e., vocabulary, inferencing, background knowledge, etc.) best predicts later comprehension?
  • Tier 2 intervention
    • Many facets
    • Higher level of understanding for interventionist
  • Growth
    • Can’t expect to see growth as quickly as with word reading problems
      • How often to progress monitor?
      • How long to keep students in Tier 2?
Reading comprehension and RTI

- Does not mean it’s not possible or it shouldn’t occur
- Help school personnel realize that it might look different
- SLPs might have big role in helping design and/or implement Tier 2 services
"I hope that's about all of them—I'm beginning to lose interest."
Clinical implications: Top 5

• Number 5: Both basic and higher-level language skills contribute to reading comprehension skills.
  • Continue to address goals/objectives related to vocabulary, morphology, syntax
  • Make sure to include goals/objectives related to inferencing, text structure (both narrative AND informational), and comprehension monitoring
    • Utilize multiple objectives within one lesson
• Help classroom teachers find ways to incorporate language goals into their entire classroom instruction ACROSS content areas, not just within the language arts block
Clinical implications: Top 5

• Number 4: The kind of text matters.
  • Goals related to narrative text have been shown to improve reading comprehension
    • The majority of text found during classroom instruction in primary grades is narrative
  • Include more informational text
    • Can more easily address concepts found in other disciplines such as science and social studies
    • Use informational text during your treatment sessions
      • Incorporate text structure goals that are related to this type of text
    • Remind teachers to use informational text to address goals/objectives
Clinical implications: Top 5

• Number 3: Motivation matters!
  • Intrinsic reading motivation predicted reading achievement for fourth- and fifth-grade students, even when background variables of socioeconomic status or gender were controlled (Baker & Wigfield, 1999)

• Incorporate the following
  • Choices
  • Collaboration/social interaction
  • Interest level
  • Readability
Clinical implications: Top 5

• Number 2: Teach content!
• Think about how to infuse knowledge into your treatment session
  • Incorporate concepts across academic disciplines (i.e., social studies, science, health)
  • Work with teachers so you know what is being taught in the classroom
Clinical implications: Top 5

• **Number 1: SLPs do have a place in reading comprehension instruction!**
  • Make yourself a member of your school or clinic’s literacy team
  • Remind teachers of your expertise in skills that contribute to reading comprehension
  • With your caseload- teach discrete skills with your eye on a larger prize
  • Incorporate knowledge and information text into your treatment sessions with ALL ages