Reading Comprehension: Core Components and Processes

Reading comprehension is multidimensional and complex. In this article, the theoretical and empirical literature on the construction of meaning during reading comprehension is reviewed, from which implications for research, practice, and policy related to instruction and assessment are derived. It is focused specifically on the inferential processes that extract meaning from text and the sources of knowledge that facilitate the extraction and construction of meaning.

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- Despite efforts to improve reading performance among children in the United States, 44% of fourth-grade and 46% of eight-grade children failed to meet the standards for reading proficiency.
- Proficient reading in fourth grade requires students to make simple inferences, draw conclusions, and make evaluations about the texts they read.
- Proficient reading in eighth grade requires students to make simple inferences, connect parts of the text, and substantiate judgments about text content.
- Students who do not meet these standards fail to derive and use the overall meaning of the text: they fail to perform the fundamental inferential processes that construct meaning while reading.
- Students who experience such difficulties are likely to struggle throughout both education and employment.

Component skills behind reading comprehension

- Word decoding
- Reading fluency
- Vocabulary knowledge
- Language comprehension
- Prior knowledge
- Comprehension monitoring
- Working memory

Demands of reading comprehension

- To understand a sentence, it is necessary to visually process the words; identify their phonological, orthographic, and semantic representations; and connect the words using rules of syntax to understand the underlying meaning of the sentence.
- It is necessary to integrate meaning across sentences, make use of relevant background knowledge, generate inferences, identify the text structure, and take into

consideration the authors' goals and motives.

Simple View of Reading

- Decoding includes processes needed to decipher written code such as phonological processing, orthographic processing, and word recognition.
- Language comprehension includes processes (such as vocabulary and inference making) needed to build a coherent mental representation.

Construction–Integration model

- This model describes reading comprehension as the activation and integration of text information and relevant background knowledge into a coherent mental representation.

Inferences as a basis for reading comprehension

- Inference refers to information retrieved from memory or generated during reading to fill in information that is not in a text.
- Inference capability is one of the unique, significant predictors of reading comprehension.
- The development of inference skills begins well before formal reading instruction starts. For example, 2-year-olds can generate causal inferences between sequential events.
- The ability to draw inferences is a general skill.

How to improve inference making

- Pre-teaching activities are designed to activate background knowledge and direct students' attention to important parts of text.

- Systematic questioning can be used about key parts of text, with feedback.
- Teachers can apply specific strategies, such as looking for clues and thinking aloud.
- Readers can apply self-questioning.
- Graphic models can be used to fill in gaps in text.
- Preventative instruction can be applied to focus on language comprehension in young children, including inference-making as a general language skill. This may serve to circumvent later reading comprehension difficulties.

Assessment of inference processes

- Engaging in inference making to construct a mental representation of what the text is about is the process of reading comprehension, whereas the mental representation itself is the product of reading comprehension.
- *Summative evaluation* is used to discern the state of achievement, which summarises performance at a particular point in time.
- *Formative evaluation* is used to discern the needs of a student with respect to instruction and curriculum and is used to improve achievement.
- The assessment of the reading product might be of interest for summative evaluation; however, reading processes might be of more interest for formative evaluation.
- Some measures for reading include Comprehension Efficiency (COMPreading), The Reading Strategies Assessment Tool (RSAT), the Multiple-Choice, Open-Ended, Cloze, Comprehension Assessment (MOCCA), and the Bridging Inferences Test (Bridge-IT).

Knowledge as the necessary source for reading comprehension

- At various levels of the reading comprehension process, the reader draws on different sources of knowledge: linguistic knowledge about phonology, syntax, and morphology; orthographic knowledge about the orthographic system; and general knowledge about text structure and the world.
- General knowledge can both facilitate and disrupt reading comprehension: high levels of accurate knowledge can facilitate reading comprehension, but inaccurate knowledge can severely disrupt reading comprehension.