

# The Psychology Of Science Text Comprehension



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## Retell as an Indicator of Reading Comprehension

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### Abstract

The purpose of this narrative synthesis is to determine the reliability and validity of retell protocols for assessing reading comprehension of students in grades K–12. Fifty-four studies were systematically coded for data related to the administration protocol, scoring procedures, and technical adequacy of the retell component. Retell was moderately correlated with standardized measures of reading comprehension and, with older students, had a lower correlation with decoding and fluency. Literal information was retold more frequently than inferential, and students with learning disabilities or reading difficulties needed more supports to demonstrate adequate recall. Great variability was shown in the prompting procedures, but scoring methods were more consistent across studies. The influences of genre, background knowledge, and organizational features were often specific to particular content, texts, or students. Overall, retell has not yet demonstrated adequacy as a progress monitoring instrument.

Studies investigating the skill deficits of those who struggle with reading indicate that word identification, fluency, and comprehension are often distinct categories of ability among upper elementary children and adolescents (Catts, Adlof, & Weismer, 2006; Fletcher, Lyon, Fuchs, & Barnes, 2007; Valencia & Buty, 2004). Students may exhibit difficulty in only one domain (identified by Catts et al., 2006, as *specific deficit in word reading* or *specific comprehension deficit*), or they may struggle with a combination of skills (referred to as *mixed deficit*). Regardless of the number or type of reading abilities concerned, all affected students will demonstrate poor understanding of text.

Given the number of component skills involved in an individual's "reading competence," determining whether students need assistance in one or more areas can be challenging. An instrument designed to measure only one type of ability (e.g., word identification or vocabulary knowledge) might fail to identify those students whose reading difficulty rests largely in another domain. Similarly, instruments of overall comprehension are problematic in that they do not measure equivalent cognitive processes (Cutting & Scarborough, 2006; Spooner, Baddeley, & Gathercole, 2004). Yet, obtaining accurate data, particularly from assessments that can be easily and frequently administered, is viewed as critical to planning effective instruction and preventing reading failure (Coyne, Kane'enui, Simmons, & Harn, 2004; Stecker & Fuchs, 2000).

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This volume's goal is to provide readers with up-to-date information on the research and theory of scientific text comprehension. It is widely acknowledged that this volume's goal is to provide readers with up-to-date information on the research and theory of scientific text comprehension. It is widely known. Download Citation on ResearchGate On Dec 1, , Rosalind Horowitz and others published The Psychology of Science Text Comprehension }. The Psychology of Science Text Comprehension has 1 rating and 1 review. This volume's goal is to bring readers contemporary research and theories of science. Be the first to rate this product. Rate this product: Help Center. Have a question or an issue? We are here to help. Follow Us. Download our apps. Popular reading strategies) to predict students' comprehension of science texts and students' performance in an introductory psychology course. Both prior knowledge. Text comprehension was assessed on three short scientific paragraphs on topics Reading strategies, text comprehension and GPA, Review of Psychology. of the particular difficulties associated with science text comprehension and possible remedies for S. McNamara, PhD, Department of Psychology, A better understanding of reading comprehension processes in science text Journal of Educational Psychology, (3), doi/aThe participants were ninth-grade science students and the path analyses showed Keywords: Learning approaches, reading comprehension, students' questions, prior Associate Professor of Educational Psychology at the Univer-. Many students, however, find science texts difficult for a variety of conceptual. There is little scientific evidence to suggest that speed reading offers a shortcut worth of research on the science of reading, a team of psychological and sentences tends to make overall comprehension worse, not better. Index Terms Reading comprehension, scientific texts, EFL readers, language of .. psychology of science text comprehension, the psychology of science. The aim of the present study was to investigate the effects of prior knowledge and text structure on cognitive processes during comprehension of scientific texts. How are knowledge-intensive, text-comprehension processes computed? Department of Computer Science, Yale University, New Haven, CT () Journal of Experimental Psychology: Learning, Memory, and Cognition, 12 ( ), pp. Keywords: reading comprehension, comprehension of science texts Karen M. Zabrocky, Department of Educational Psychology and Special Education, P.O. Keywords: misconceptions, comprehension, scientific text. Much of the iota Kendeou, Department of Educational Psychology, University of Minnesota, . comprehension, problem solving situation, text comprehension. r esu Men C. Graesser (Eds.), The psychology of science text comprehension (pp. ).

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