
Thank you for your request to our REL Reference Desk regarding research that supports the development of reading/language comprehension. Ask A REL is a collaborative reference desk service provided by the ten regional educational laboratories (REL) that, by design, functions much in the same way as a technical reference library. It provides references, referrals, and brief responses in the form of citations on research based education questions.

The information below represents the most rigorous research available. Researchers consider the type of methodology and give priority to research reports that employ well described and thorough methods. The resources were also selected based on the date of the publication with a preference for research from the last ten years. Additional criteria for inclusion include the source and funder of the resource.

Question: *What research supports the development of reading/ language comprehension?*

Key words and search strings used in the search: *reading comprehension development; reading acquisition; how reading ability develops; reading development framework; progression of reading skill acquisition*

Search databases and websites:

1. ERIC: <http://www.eric.ed.gov/>
2. JSTOR: <http://www.jstor.org/action/showAdvancedSearch>
3. Google Scholar: www.google.com/scholar
4. Institute of Education Sciences (IES) Resources: <http://ies.ed.gov/pubsearch/>
5. What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>

Citations Retrieved: (NOTE: Abstracts and executive summaries are copied directly from the reports when possible to ensure accuracy):

Cartwright, K. B. (2012). Insights from cognitive neuroscience: The importance of executive function for early reading development and education. *Early Education and Development*, 23(1) 24-36. <http://eric.ed.gov/?id=EJ953762>

Abstract/Summary: Research Findings: Executive function begins to develop in infancy and involves an array of processes, such as attention, inhibition, working memory, and cognitive flexibility, which provide the means by which individuals control their own behavior, work toward goals, and manage complex cognitive processes. Thus, executive function plays a critical role in the development of academic skills such as reading. This article describes the development of executive function in young children, describes the brain structures and changes associated with that development, and then reviews recent research on the critical role of executive function in early reading development and education. Practice or Policy: Because executive function and its associated brain developments parallel reading acquisition, work in executive function has profound implications for fostering the successful development of

reading skills, including prereading skills, word reading, and reading comprehension. Instruction that helps children learn to manage the multiple features of spoken and printed language will help ensure that children develop the reading-specific executive functions that will enable them to manage the complexities of reading processes throughout their lives. (Contains 1 table and 2 figures.)

Language and Reading Research Consortium. (2015). Learning to read: Should we keep things simple? *Reading Research Quarterly*, 50(2), 151-169. <http://eric.ed.gov/?id=EJ1055933>

Abstract/Summary: The simple view of reading describes reading comprehension as the product of decoding and listening comprehension and the relative contribution of each to reading comprehension across development. We present a cross-sectional analysis of first, second, and third graders (N = 123-125 in each grade) to assess the adequacy of the basic model. Participants completed multiple measures to inform latent constructs of word reading accuracy, word reading fluency, listening comprehension, reading comprehension, and vocabulary. In line with previous research, structural equation models confirmed that the influence of decoding skill decreased with increasing grade and that the influence of listening comprehension increased. However, several additional findings indicate that reading development is not that simple and support an elaboration of the basic model: A strong influence of listening comprehension on reading comprehension was apparent by grade 2, decoding skill was best measured by word and nonword reading accuracy in the early grades and word reading fluency in grade 3, and vocabulary skills indirectly affected reading comprehension through both decoding skill and listening comprehension. This new elaborated model, which provides a more comprehensive view of critical influences on reading in the early grades, has diagnostic and instructional ramifications for improving reading pedagogy. [This article was written by members of the Language and Reading Research Consortium.]

Lynch, J. S., van den Broek, P., Kremer, K. E., Kendeou, P.K., White, M J., & Lorch, E. P. (2008). The development of narrative comprehension and its relation to other early reading skills. *Reading Psychology*, 29(4) 327-365. <http://eric.ed.gov/?id=EJ805382>

Abstract/Summary: The first goal of this study was to examine young children's developing narrative comprehension abilities using theory-based, authentic measures of comprehension processes. The second goal was to examine the relations among young children's comprehension abilities and other early reading skills. Children ages 4 and 6 listened to or watched two authentic narratives. We measured their comprehension of these narratives as well as vocabulary and skills associated with word decoding. The results revealed that even the younger children were sensitive to the underlying structure of the narratives and that this sensitivity increased with age. Measures of narrative comprehension were not consistently correlated with skills associated with word decoding, such as phonological awareness. The

results are discussed in terms of theoretical models of comprehension and of reading development. Practical implications of the findings are also explored. (Contains 2 figures, 3 tables and 3 notes.)

McNamara, D. S., & Kendeou, P. (2011) Translating advances in reading comprehension research to educational practice. *International Electronic Journal of Elementary education*, 4(1) 33-46. <http://eric.ed.gov/?id=EJ1068606>

Abstract/Summary: The first goal of this study was to examine young children's developing narrative comprehension abilities using theory-based, authentic measures of comprehension processes. The second goal was to examine the relations among young children's comprehension abilities and other early reading skills. Children ages 4 and 6 listened to or watched two authentic narratives. We measured their comprehension of these narratives as well as vocabulary and skills associated with word decoding. The results revealed that even the younger children were sensitive to the underlying structure of the narratives and that this sensitivity increased with age. Measures of narrative comprehension were not consistently correlated with skills associated with word decoding, such as phonological awareness. The results are discussed in terms of theoretical models of comprehension and of reading development. Practical implications of the findings are also explored. (Contains 2 figures, 3 tables and 3 notes.)

Nation, K., & Angell, P. (2006). Learning to read and learning to comprehend. *London Review of Education*, 4(1) 77-87. <http://eric.ed.gov/?id=EJ819654>

Abstract/Summary: This paper reviews recent experimental findings that inform our understanding of the development of reading comprehension. Studies investigating children who have specific difficulties with reading comprehension provide considerable information concerning the process involved in successful reading comprehension. This literature highlights aspects of reading comprehension skill that cannot be readily accommodated by the "searchlights" model--the theoretical model framework adopted by the National Literacy Strategy. We conclude that comprehension depends on a very complex set of processes, many of which are shared with language comprehension more generally. Finally, implications for the teaching of reading comprehension are discussed. (Contains 2 figures.)

Perfetti, C. A., Landi, N., & Oakhill. J. (2005). The acquisition of reading comprehension skill. In M. J. Snowling & C. Hulme (eds.), *The science of reading: A handbook*. (pp. 227-247). Blackwell Publishing LTD, Oxford UK. doi: 10.1002/9780470757642.ch13

Abstract/Summary: How do people acquire skill at comprehending what they read? That is the

simple question to which we shall try to make a tentative answer. To begin, we have to acknowledge some complexities about the concept of reading comprehension and what it means to develop it.

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE Publication No. 2010–4038). Washington, DC: National Center for Education Evaluation and Regional, Institute of Education Sciences, U.S. Department of Education. <http://eric.ed.gov/?id=ED512029>

Abstract/Summary: Strong reading comprehension skills are central not only to academic and professional success, but also to a productive social and civic life. These skills build the capacity to learn independently, to absorb information on a variety of topics, to enjoy reading, and to experience literature more deeply. Despite the growing demand for highly educated workers in today's information- and service-related economies, the proportion of American adults classified as "below basic" readers remained remarkably constant between 1992 and 2003. This guide, developed by a panel of experts, presents a set of evidence-based practices that teachers and other educators can use to successfully teach reading comprehension to young readers. The panel believes that students who read with understanding at an early age gain access to a broader range of texts, knowledge, and educational opportunities, making early reading comprehension instruction particularly critical. The guide also describes the evidence that supports the practices and gives examples of how they can be implemented in the classroom. Appendices include: (1) Postscript from the Institute of Education Sciences; (2) About the Authors; (3) Disclosure of Potential Conflicts of Interest; and (4) Rationale for Evidence Ratings. (Contains 11 tables, 1 figure and 214 endnotes.)

Silva, M., & Cain K. (2015). The relations between lower and higher level comprehension skills and their role in predictions of early reading comprehension. *Journal of Education Psychology*, 107(2), 321-331. <http://eric.ed.gov/?id=EJ1061912>

Abstract/Summary: This study of 4- to 6-year-olds had 2 aims: first, to determine how lower level comprehension skills (receptive vocabulary and grammar) and verbal memory support early higher level comprehension skills (inference and literal story comprehension), and second, to establish the predictive power of these skills on subsequent reading comprehension. Eighty-two children completed assessments of nonverbal ability, receptive vocabulary and grammar, verbal short-term memory, and inferential and literal comprehension of a picture book narrative. Vocabulary was a unique predictor of concurrent narrative comprehension. Longitudinally, inference skills, literal comprehension, and grammar made independent contributions to reading comprehension 1 year later. The influence of vocabulary on reading comprehension was mediated through both inference and literal comprehension. The results show that inference skills are critical

to the construction of text representations in the earliest stages of reading comprehension development.

Referrals

Organizations:

- Florida Center for Reading Research: www.fcrr.org
- Language and Reading Research Consortium: <https://larrc.ehe.osu.edu/>

Federally Funded Resources:

- Institute of Education Sciences (IES), public search engine available at: <http://ies.ed.gov/pubsearch/>
- What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>

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