

Research Supporting Shift 3: Building Knowledge

The Research Supporting Building Knowledge

Primary Research

1. Recht, D. R., & Leslie, L. (1988). Effect of prior knowledge on good and poor readers' memory of text. *Journal of Educational Psychology*, 80(1), 16.

Relevant finding:

Knowledge of the topic had a greater impact on reading comprehension than generalized reading ability.

2. Willingham, D. T. (2006). How knowledge helps. *American Educator*, 30(1), 30-37.

Relevant finding:

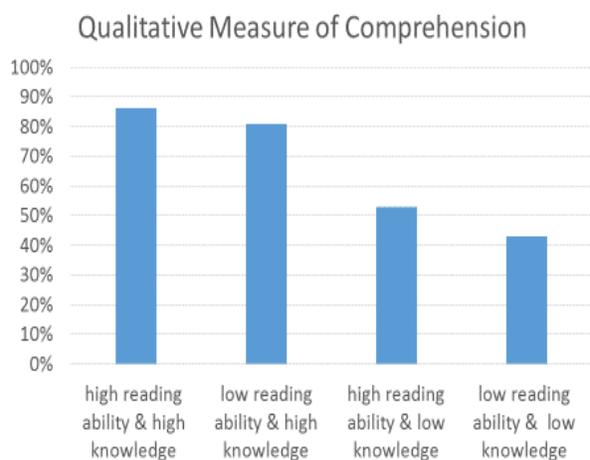
- Synthesizes and summarizes a vast body of research to show how knowledge of a subject aids thinking, memory, and learning of new information.

3. Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge University Press.

Relevant finding:

- In this seminal work, Kintsch develops a model for comprehension showing the essential role of knowledge in the comprehension process. This model, termed the "situation model" now forms the basis of much current comprehension research.

4. Guthrie, J. T., McRae, A., Coddington, C. S., Klauda, S. L., Wigfield, A., & Barbosa, P. (2009). Impacts of comprehensive reading instruction on diverse outcomes of low-and high-achieving readers. *Journal of Learning Disabilities*, 42(3), 195-214.



Source: Recht & Leslie (1988), pg. 18, table 1.

Note: conversion from raw numbers to percentages achieved by dividing score achieved by total possible score.

STUDENT ACHIEVEMENT PARTNERS

- Guthrie, J. T., McRae, A., & Klauda, S. L. (2007). Contributions of concept-oriented reading instruction to knowledge about interventions for motivations in reading. *Educational Psychologist, 42*(4), 237-250.
- Taboada, A., Tonks, S. M., Wigfield, A., & Guthrie, J. T. (2009). Effects of motivational and cognitive variables on reading comprehension. *Reading and Writing, 22*(1), 85-106.

Relevant finding:

- These three studies together illustrate how Guthrie's knowledge-based literacy programs achieved better results on standardized tests and other measures than traditional skills-based approaches.

The Research Supporting Informational Text in Building Knowledge

Primary Research

- Neuman, S. B. (2006). How we neglect knowledge-and why. *American Educator, 30*(1), 24.

Relevant finding:

Summarizes research on the connection between informational text and reading comprehension, as well as how the dominance of narrative and fictional text in the elementary curriculum has lessened the growth of knowledge necessary to comprehension.

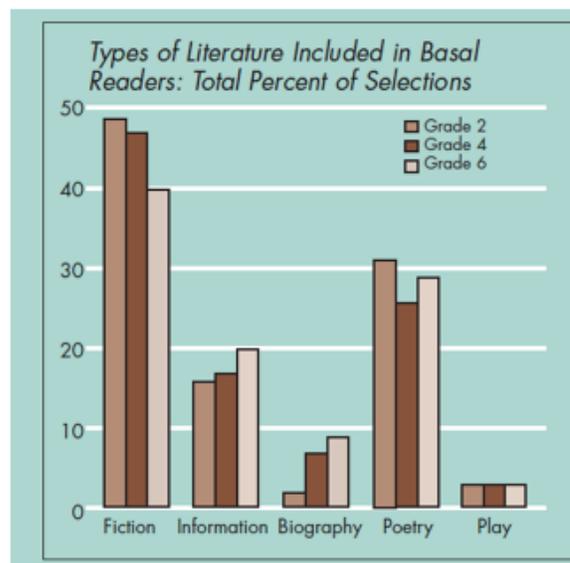
- Cervetti, G., Jaynes, C., & Hiebert, E. (2009). Increasing opportunities to acquire knowledge through reading. In *Reading more, reading better* (pp. 79-100). The Guilford Press.

Relevant finding:

- Shows how growing knowledge via informational text is essential to students' literacy development.

- Yopp, R. H., & Yopp, H. K. (2006). Informational texts as read-alouds at school and home. *Journal of Literacy Research, 38*(1), 37-51.

Relevant finding:



Source: Neuman (2006) pg. 25 [authors citing from Moss & Newton (2002)]

STUDENT ACHIEVEMENT PARTNERS

- This research shows that both in school and at home, students in K-3 read or have read to them far fewer informational texts than narrative texts (pg. 2) thus inhibiting the growth of knowledge necessary to comprehension proficiency, especially of complex texts.

For additional research, see also:

Building Knowledge

- Hiebert, E. (2009). *Reading more, reading better*. The Guilford Press.
- Hirsch, E. D. (2007). *The knowledge deficit: Closing the shocking education gap for American children*. Houghton Mifflin Harcourt.
- McNamara, D.S., Graesser, A.C., & Louwerse, M.M. (in press). Sources of text difficulty: Across the ages and genres. In J.P. Sabatini & E. Albro (Eds.), *Assessing reading in the 21st century: Aligning and applying advances in the reading and measurement sciences*. Lanham, MD: R&L Education.
- Neuman, S. B. (2006). How we neglect knowledge-and why. *American Educator*, 30(1), 24.
- Stanovich, K. & Cunningham, A. (1993). Where does knowledge come from? Specific associations between print exposure and information acquisition. *Journal of Educational Psychology*, 8(2), 211-229.
- Willingham, D. (2010). How can I teach students the skills they need when standardized tests require only facts? In *Why don't students like school: A cognitive scientist answers questions about how the mind works and what it means for the classroom* (pp. 25-52). Jossey-Bass.

Informational Text

- Duke, N. K. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, 35(2), 202-224.
- Moss, B., & Newton, E. (2002). An examination of the informational text genre in basal readers. *Reading Psychology*, 23(1), 1-13.
- Walsh, K. (2003). The lost opportunity to build the knowledge that propels comprehension. *American Educator*, 27(3), 24-27.