



College of Education

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Research Highlights of Current Faculty Projects

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Knowledge and Experience Enhances Reading Among Adults

Traditionally, education has been conceived as something that prepares the young for adult life. The U.S. is now in an accelerated transition from an industrial economy to one based on information and services. Given such change, learning and education have become life-long processes, where adults need to continue to develop skills to acquire new knowledge and abilities to act competently in an ever demanding, changing world. Reading is vital for learning new skills and information throughout adult life.

Elizabeth A. L. Stine-Morrow, University of Illinois professor in Educational Psychology, has been conducting research with Lisa Soederberg Miller of Brandeis University and two other colleagues to investigate the effects that knowledge about a particular content area (“domain knowledge”) has on reading text. The goal of the study was to understand how adults of different ages depend on their knowledge and experiences with particular topics to support the way they process information when reading. Research has shown that adult cognitive development shows continual increases in knowledge and experience even with declines in effectiveness at tasks requiring speed and short-term memory. Older adults compensate for their deficits in those processes by placing more emphasis on their long-term memory and knowledge stores. Through accumulating life experiences, older adults develop greater verbal abilities, an enhanced knowledge base, and a more refined perspective about the world to develop more elaborated models of meaning. Experiences and abilities, together, give older adults an added advantage when reading to overcome losses in cognitive processing.

What This Research Can Tell Us:

Stine-Morrow and her colleagues found that when reading familiar and unfamiliar passages, older and younger adults read and process information differently. While younger adults are more effective at speed and memory tasks while reading, they do not have a reservoir of knowledge and experience to make more refined judgments about the text they read. The researchers presented both groups with passages of text on a complicated topic (e.g. anatomy and physiology of the heart), allowing them to read at their own pace. They discovered that while older adults are slower when they read, they tap into an extensive knowledge and experience base in order to maximize their learning while reading. While reading text, older adults try to incorporate the newer text with what they already know. This way of processing of newer information allows older adults to use their background knowledge to refine their knowledge of the topic and to make more elaborative inferences. Thus, older adults are more likely to go beyond the text passage and apply some of their past experiences during recall. The findings suggest that in comparison to younger adults, older adults are more interpretive and less literal in their recall style. Although the learning is slower, it is not an indication of inefficiency of learning, but an indication that the active reflection is a sign of true learning and knowledge formation.

What This Research Means for Teachers and Life-Long Learners:

- While older adults are relatively slower at processing text than younger adults, the greater effort they put into processing helps build knowledge, and may be a reflection of true learning.
- The lack of prior knowledge and experiences among young adults suggests that it may be harder for them to regulate their own reading processes. Teachers may need to provide more active encouragement and environmental support to encourage active integration strategies among these young adult learners.

For more information:

Soederberg, L., Stine-Morrow, E., Kirkorian, H., & Conroy, M. (2004). Adult age differences in knowledge-driven reading. *Journal of Educational Psychology*, 96(4), 811-821.

We invite your response...

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