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Title: Bridging skill and task oriented reading

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Strand of Work: Basic Studies

Abstract

Some individual difference factors are more strongly correlated with performance on post-reading questions when the text is not available than when it is. The present study explores if similar interactions occur with bridging skill, which refers to a reader's propensity to establish connections between explicit text during reading. Undergraduates read science texts using two research tools. The Reading Strategy-Assessment Tool (RSAT) provided a measure of bridging skill. Texts and post-reading questions were presented in Read&Answer and the availability of the text while answering was manipulated. Contrary to prior research, bridging skill was comparably correlated with performance in both availability conditions. While bridging skill was not correlated with search decisions, there was a trend toward a positive correlation with search time, suggesting that readers who tend to bridge more may also tend to persist longer in searching for answers. The results are discussed in terms of dynamic perspectives of task-oriented reading.

Purpose and Questions Investigated

Reading comprehension tests can be very useful for determining how successful students are at reading in academic settings. Comprehension tests typically involve having students answer questions under one of two situations, and specifically when texts are available to them as they answer questions or when they are not. Psychologists and educators have been conducting research for years to determine the features of readers that make them more or less successful on comprehension tests. However, little is known about how these features are related to performance when the text is or is not available.

The goal of the present study was to explore this issue and we focused on a specific aspect of comprehension, namely bridging skill. Bridging skill refers to readers' ability to make connections between sentences as they read. Our prior research has shown that readers vary in how often they make bridging connections between sentences as they read (i.e., inferring that sentence A is related to sentence B). Additionally, bridging skill is positively related to performance on comprehension tests when texts are unavailable. However, is bridging skill equally important when texts are available as it is when they are unavailable? Answering this question is important because students are often instructed to use strategies when taking standardized tests (typically texts are available in this situation) that do not involve deeply comprehending the texts in the tests (e.g., skim the texts, or read the questions first and then search for answers). These strategies would lead students to minimally engage in the texts and not generate bridging inferences.

Research Context or Methodology

One hundred and seventeen students enrolled in an introduction to psychology course at Northern Illinois University (NIU) participated in this study, which occurred in a laboratory setting. The NIU undergraduate population primarily consists of students from urban (e.g., from Chicago Public Schools) and suburban high schools in the Northern Illinois region. In order to get an assessment of bridging skill, participants took the Reading Strategy Assessment Tool (RSAT), which was previously developed under and Institute for Educational Science grant (Grant number R305G04005). After taking RSAT, participants read a series of science texts and answer open-ended questions about them. They were either able to search the texts when answering the questions or they were not allowed to search the texts when doing so. The dependent variables were the completeness of their answers to the questions and the time spent searching the texts for answers when it was available.

General statement of findings

Using hierarchical linear modeling, this study showed that bridging skill was equally correlated with answer completeness regardless of whether the texts were available or unavailable. These results suggest that comprehending a text before attempting to answer the questions is important in both situations. Additionally, bridging skill was positively correlated with search time, which means that the more participants tended to bridge, the more time they spent searching texts for answers. This finding suggests that bridging helps students know that answers are in the text, presumably because the readers bridge, the better they remember what they read. So, students who tend to bridge when reading are willing to spend more time searching for an answer if they cannot generate one after reading a question.

Implications

The results of this study suggests that students should attempt to read and comprehend texts before they try to answer questions, even when they can search the texts for answers. These findings have important implications for educational practice. They call into question the common practice of instructing students to minimally read or not even read texts that appear on high-stakes tests, which typically allow students to search the text for answers. In the context of project READI, this study illustrates the importance of providing scaffolds that help students comprehend the texts in a document set before they engage in the inquiry-based activity (e.g., writing an argumentative essay).

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