

A Systematic Review of the Research on Vocabulary Instruction That Impacts Text Comprehension

eTale 2022



This review led to four major findings, as follows: in almost all cases, teaching of word meanings supported comprehension of text containing the target words; instruction that focused on some active processing was typically more impactful than a definition or a dictionary method for supporting comprehension of text containing target words; there is very limited evidence that direct teaching of word meanings can improve generalised comprehension; and there is currently no empirical evidence that instruction in one or two strategies for identifying word meanings will impact generalised comprehension.

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Source: Wright, T.S. & Cervetti, G.N. (2016). A systematic review of the research on vocabulary instruction that impacts text comprehension. *Reading Research Quarterly*, 52(2), 203-226. DOI: 10.1002/rrq.163

This study comprised a systematic review of vocabulary interventions with comprehension outcomes. Analyses of 36 studies that met criteria are organised according to type of

comprehension measure and type of intervention. The review led to four major findings: in almost all cases, teaching of word meanings supported comprehension of text containing the target words; instruction that focused on some active processing was typically more impactful than a definition or a dictionary method for supporting comprehension of text containing the target words; there is very limited evidence that direct teaching of word meanings can improve generalised comprehension; and there is currently no empirical evidence that instruction in one or two strategies for identifying word meanings will impact generalised comprehension.

- The ultimate goal of all reading-related instruction in schools is to help students comprehend text.
- The size of a person's vocabulary is one of the strongest predictors of their reading comprehension.
- There is evidence that schooling has a limited impact on students' vocabulary development.
- Increased attention to vocabulary instruction in school will improve students' vocabulary knowledge, which will, in turn, improve students' reading comprehension.
- Educational researchers have posited a reciprocal model in which vocabulary knowledge supports comprehension of text and text comprehension supports vocabulary learning.
- Comprehension can be supported by directly teaching a set of word meanings or by teaching strategies for making sense of unknown words during reading.

Hypotheses about the relationship between vocabulary and comprehension

- The aptitude hypothesis proposes that vocabulary and comprehension are linked by an underlying factor that impacts both outcomes.
- The knowledge hypothesis suggests that vocabulary actually represents knowledge and that knowledge boosts comprehension.

- The instrumentalist hypothesis suggests that knowledge of a word's meaning directly impacts reading comprehension.
- The speed-of-access hypothesis suggests that interventions should involve depth-of-processing of word meanings to increase text comprehension.



The study

This study reviewed research about vocabulary interventions that may impact comprehension.

The goals of this study were:

- To complete a systematic search of the literature to ensure the inclusion of all available peer-reviewed vocabulary intervention studies with passage-level comprehension outcomes.
- To use qualitative coding and analytic strategies to identify patterns in the characteristics of vocabulary interventions that do and do not impact comprehension.
- To use the analysis to make recommendations that could inform future research on vocabulary instruction.

The data

The review consisted of 36 vocabulary intervention studies with passage comprehension as outcomes.

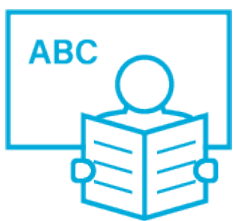


Findings

- A majority of the studies (n = 22) focused on students in Grades 3–5.
- A majority of the studies (n = 25) examined the impact of interventions on comprehension of passages that included the taught target words involving direct teaching of word meanings, and significant effects for at least one condition on the taught-word comprehension measure were found for 21 of these 25 studies.
- In the study by Hawkins et al. (2010), treatment involved having the fourth-grade students pronounce each word and then the teacher read a definition and sentence for each word directly before students read the text; this improved passage comprehension compared with exposure during reading alone.
- Some studies used pre-teaching methods such as providing definitions, use of the word in context, and/or brief discussions about each word.
- Even brief interventions that provide information about word meanings were shown to have a positive impact on comprehension.
- Seven studies compared instructional approaches focused on greater active processing with a definition or dictionary method. In 5 out of 7 cases, treatment involving more active processing had greater effects on a taught-word comprehension measures administered immediately following the intervention and in some studies, findings in favour of the active-processing groups were maintained at follow-up 4–6 weeks later.
- More attention to active processing has a stronger impact on comprehension of passages containing the

taught words compared with more receptive approaches, such as exposure during reading, brief definitions, or a dictionary method.

- Providing students with strategies to support their word learning had added benefits for taught-word comprehension.
- Sixteen studies included measures of generalised comprehension. Only 4 out of 16 studies identified effects for at least one condition on the generalised comprehension measure (that is, taught words were not embedded in the comprehension passage).
- The studies provide little support for the efficacy of long-term, multifaceted interventions for improving generalised comprehension.
- Two studies provide preliminary evidence that actively teaching students to monitor their understanding of vocabulary and using multiple, flexible strategies for solving word meanings may offer a promising approach to supporting students' comprehension of passages that do not contain pre-taught words.



Implications

- In almost all cases, it was found that teaching word meanings supported comprehension of text containing the target words.
- Instruction that focused on some active processing was typically more impactful than a definition or dictionary method for supporting comprehension of text containing the target words. However, it is not known how much

instruction is sufficient, as supported by the speed-of-access hypothesis. However, young students (kindergartners) with less vocabulary knowledge may not yet be ready to benefit from the type of instruction typically provided in multifaceted vocabulary interventions.

- There is very limited evidence that direct teaching of word meanings (even long-term, multifaceted interventions of large numbers of words) can improve generalised comprehension.
- There is currently no empirical evidence that instruction using one or two strategies for solving word meanings will impact generalised comprehension.
- Studies that actively teach students to monitor their understanding of vocabulary and use multiple, flexible strategies for solving word meanings are a promising area for future research.