

Assessing the contribution of lexical quality variables to reading comprehension in deaf and hearing readers

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We evaluated the relative contribution of lexical quality (LQ) variables – orthographic (spelling), phonological, and semantic (vocabulary) knowledge – to reading comprehension in deaf ($n = 67$) and hearing adults ($n = 62$) using a regression model to predict reading skill (PIAT and Woodcock Johnson (WJ) comprehension subtests). For deaf readers, LQ variables predicted 28% of the variance in PIAT scores (after eliminating covariates) and 18% of the variance in WJ scores. Semantics and orthography, not phonology, predicted reading comprehension for deaf readers. For hearing readers, LQ variables predicted 14% of variance in PIAT scores and 56% in WJ scores. Phonology was the strongest predictor of reading comprehension (with semantics also predicting WJ scores). We conclude that 1) strong orthographic and semantic representations, rather than precise phonological representations, predict reading skill in deaf adults and 2) the predictive strength of LQ variables may depend upon how reading comprehension is measured.