

## **SOP2-2**

### **Working Memory Predicts New Word Learning Over and Above Existing Vocabulary and Nonverbal IQ**

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The purposes of this study were to use an empirical model of working memory in children to predict an empirical model of word learning to determine whether working memory explains word learning variance over and above contributions of expressive vocabulary and nonverbal IQ. Second graders with typical development (N=167) from three states participated. They completed a comprehensive battery of working memory assessments and six word-learning tasks assessing the creation, storage, retrieval, and production of phonological and semantic representations of nouns and verbs and the ability to link those representations. An SEM with three working memory factors predicting two word-learning factors fit the data well. Working memory was a significant predictor of Phonological and Semantic word learning over and above contributions of expressive vocabulary and nonverbal IQ. The Central Executive factor was the strongest predictor of both the Phonological and Semantic word learning factors. Results confirm the important relationship between working memory and word learning, suggesting that future studies test the hypothesis that tailoring instruction based on a child's working memory profile could increase learning. Funding: NIH NIDCD Grant R01 DC010784.