

**Can E-Book Support LSES Parental Mediation
for Enriching Child's Vocabulary?**

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Abstract

Reading to preschool children is seen as a good opportunity for enriching their vocabulary. Despite parents' awareness of the importance of this issue, they explain new words very infrequently during shared book reading. Aside from reading with a parent, in today's digital age, young children are also able to independently read electronic books (e-books). When these books include a dictionary, they have been found to support the learning of new words. The current study focuses on whether an electronic book that includes a dictionary can help parents' mediate their child's learning of new words during shared book reading. This study is distinct in its attempt to improve young children's word learning by a combination of support, which is provided by a computer program together with the support of a mediating adult who is also aided by the program. To the best of our knowledge, this has not been explored in the existing research. This study is unique in that it: (a) explores the computer program not only in terms of its ability to help advance children's language, but also as a tool with the potential to support parents' mediation, and (b) includes the use of a dictionary containing various types of definitions. Participants were 128 kindergarten children from a low-SES and their mothers. Children were randomly assigned to one of four groups (32 children each): (1) Independent reading of an e-book without a dictionary (control group); (2) independent reading of an e-book with a dictionary; (3) joint parent-child reading of an e-book without a dictionary; and (4) joint parent-child reading of an e-book with a dictionary. The target words in the e-book dictionary were explained in three ways: One-third of the words received dictionary definitions, one-third received a contextualized definition, and one-third received both a dictionary definition and a contextualized definition. Pre-tests and post-tests were used to evaluate children's receptive and expressive understanding of the target words. All the groups read two e-books, each book four times. Readings in the two mother-child groups were video-recorded to evaluate maternal mediation. We examined both the frequency and the style of maternal mediation of the target words in the book. We hypothesized that: (1) Mother-child reading of the e-book with a dictionary would learn the most words, followed by the other groups as follows: independent reading of the e-book with a dictionary, mother-child reading of e-book without a dictionary, and independent reading of the e-book without a dictionary; (2) mothers reading an e-book with a dictionary would mediate more words compared to mothers reading an e-book without

a dictionary; (3) words that were defined with the combination of a dictionary definition and a contextual definition would be learned more easily than those with only one type of definition; and, (4) initial vocabulary level would contribute to the child's progress in learning new words, yet the contribution of the intervention would surpass that of the initial vocabulary level.

In line with our expectations, the central finding of the study revealed that the greatest improvement in word learning occurred amongst children who read the e-book with the dictionary and maternal mediation. Children in this group improved on all four study measures: receptive word understanding, sentence completion, word definitions, and word usage during storytelling. The second largest improvement across the four measures was amongst children who independently read the e-book with the dictionary. Children who read the e-book without a dictionary but with maternal mediation progressed in their receptive understanding and usage of the words at a level similar to children who independently read the e-book with the dictionary. Children in all three intervention groups improved more across the four study measures more than children who independently read the e-book without the dictionary (control group). The type of dictionary support for the words did not contribute significantly to the children's learning. That is, words that received both the dictionary and the contextualized definition were learned at a similar level to words that received only a dictionary definition or only contextualized definition. Results also showed that compared to mothers who read the e-book without the dictionary, those who read the e-book with the dictionary mediated on a higher level, which included defining difficult words, drawing connections beyond the text, and discussing the printed language. Mothers who read the e-book with the dictionary explained a greater number of words, most of which were defined in the dictionary, and some that were not. Mothers predominantly used the dictionary definition when defining words. Children's initial vocabulary level did not contribute as expected to children's learning, with the exception of the ability to use the words during storytelling. The group that included shared mother-child reading of the e-book with the dictionary was the only one where a relationship was found between initial vocabulary learning and the learning of new words. Specifically, children with a higher initial vocabulary level learned more words in contrast to the other children in the group. In the discussion we address the limitations and educational implications that emerge from the study, and propose directions for future research.