

BAR- ILAN UNIVERSITY

**Dictionary support and story content
expansion and their effect on words'
learning, story comprehension and story
retelling following e-book reading**

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Submitted in partial fulfillment of the requirements for Master`s Degree
in the school of Education, Bar- Ilan University

Abstract

Electronic books (e-books) are a relatively new tool that may effectively foster the acquisition of spoken language in young children, particularly, vocabulary and story comprehension. To date, studies have focused on each of these areas separately, treating the dictionary as a support for vocabulary and elaborations as a support for story comprehension. In the current study, in addition to evaluating these elements, we also evaluated the impact of vocabulary on story comprehension and of elaborations on vocabulary learning. We considered the unique contributions to children's progress beyond their initial language level. This study has theoretical importance in its focus on central cognitive processes of learning and instruction, including its consideration of the relationship between the skills underlying these processes. Additionally, the study may have pedagogical implications regarding instructional activities of one type (e.g., use of a dictionary) impacting other areas of language development (e.g., story comprehension). Participants in the study were 110 children from a low-socioeconomic status, who attended nine kindergartens. In each kindergarten, the children were randomly assigned to one of three groups: one group read an e-book with dictionary support, one group read the e-book with support in story comprehension, and one group served as a control group, reading the e-book with no additional support. Pretests included: (1) general measure of vocabulary (PPVT); (2) Kaufman's opposites test; (3) receptive test of target words; (4) definitions of target words; (5) story comprehension; and, (6) story retrieval. During the intervention phase, each child independently read the e-book four times on different days. Posttest included the same measures as the pretest, excluding the general vocabulary and opposites measures. We hypothesized that (a) the dictionary will support the learning of new words more than the elaborations condition, and both conditions will support word learning more than the control group; (b) story elaborations will support story comprehension and retrieval more than dictionary support, and both will provide more support than the control group; (c) children's progress in learning new words will be associated with their story comprehension and retrieval; (d) children's initial vocabulary level (PPVT, Kaufman's opposites) will contribute to their learning new words, story comprehension, and story retrieval, and this contribution will be vary across the different groups. Study hypotheses were partially supported. Results revealed that the dictionary was most effective for

receptive word learning. In the group that received story elaborations, an interaction was found between progress in receptive learning of new words and improvement in story comprehension. That is, children in this group who learned more new words also progressed the most in story comprehension. In addition, an interaction was found for the control group between defining new words and understanding story content. Specifically, children who were better able to explain words were also better able to understand the story. Within the group that received story elaborations, a positive correlation was found between children's PPVT scores and their progress in receptive learning of new words, such that higher initial PPVT scores was associated with receptive learning of new words. Findings also demonstrated that administering Kaufman's opposite task contributed to improvements in study retrieval, with the control group showing the greatest gains. In contrast to our expectations, it was found that word definitions, story comprehension and retrieval did not significantly improve following the intervention. The most significant improvement occurred with receptive learning of words. Study results are explored in detail in the discussion section.