

BAR- ILAN UNIVERSITY

**Influence of Type of Dictionary Support in an E-book and Children's Initial
Vocabulary Levels on New Words Learning among LSES Children**

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Abstract

Children's vocabulary level in kindergarten is considered a primary predictor of the development of reading and reading comprehension at school age. Reading books to children is a recommended method for improving children's vocabulary at this age. However, it appears that parents mediate very few new words during readings, and when they do, they provide a short dictionary definition or connect the story content to the meaning of the word. In today's digital age, even prior to school, young children can "read"/listen to electronic books. Recent studies that included a dictionary in an e-book demonstrated its contribution to kindergarten children's learning new words. In these studies, the provided definition was a short dictionary definition. The current study is innovative in its raising the question of whether the type of definitional support will influence the effectiveness of children's learning of new words. Another question that is raised relates to the wide variability that exists between children's vocabulary levels. This variability can influence children's learning of new words. Typically, children with a richer vocabulary learn new words more easily. At the same time, initial results from studies of e-books have demonstrated that when the technological mediation is particularly useful, children with weaker vocabularies can benefit to the same degree as, and sometimes even more than, children with stronger initial vocabularies. The current study has three aims: (1) to explore the most effective type of support for advancing children's learning of new words during the reading of an e-book with a dictionary that includes (a) a dictionary definition, (b) a definition that relies on the content of the story, or (c) a dictionary definition integrated with its use in the story content; (2) to examine whether and to what degree children's initial vocabulary level contributes to their learning of new words from the e-book; (3) to determine if an interaction will occur between the type of definition and children's initial vocabulary level. Participants were 72 kindergarten children (ages 5-6) from a low socio-economic status (SES). Children were randomly assigned to a group that read an e-book with a dictionary that includes all three types of word support (n=36), or to a control group that read the e-book without any dictionary support (n=36). All the dictionary words were verbs, and appeared in the singular form in the past tense. As all the children reading with the dictionary will receive all three types of dictionary support, within-child comparisons was been made. Pretests were administered on an individual basis in the kindergarten and measured general vocabulary level, receptive vocabulary understanding, and the

ability to define and express the target words. At the intervention phase the children read the e-book four times (1-3 days apart) according to their group assignment. Posttests were the same as the pretests but omit the general vocabulary test. We hypothesized that (1) children who read the e-book with dictionary support will learn more new words than those who read without the dictionary (control group); (2) the integrated definition will lead to the greatest improvement in word learning compared to the two other types of support (dictionary only, content only); (3) children with a lower initial vocabulary level will benefit from word learning at the receptive and expressive levels similarly to those with a higher initial vocabulary level, and the contribution will vary based on the type of dictionary support, such that the integrated definition will contribute to greater learning than the other types of support; (4) An interaction will be found between initial vocabulary level and type of support, with children with a lower initial vocabulary level showing a greater improvement on those words that had the integrated definition.

The results of the current research show that children who read in the dictionary channel of the electronic book did not acquire new words in the receptive vocabulary and in the use of the dictionary words, more than children who read in the electronic book without a dictionary. Nonetheless, children who read the electronic book in the dictionary channel did acquire more new words in the level of word definition than children who read the e-book without the dictionary.

The current research had also found that the children who read the dictionary channel were more successful in the level of receptive understanding of the target words that received an interpretation in the context of the story, than in the words that received a dictionary interpretation or a combined interpretation. In addition, the research found that in the level of word definition, the children were more successful when the words were interpreted in the context of the story than when the words were defined by the dictionary, and both more beneficial than the combined interpretation.

The current research has also examined the connection between the initial linguistic level of the child and the level of his or her's improvement in the receptive level, in the use of the dictionary words and in word definition. The results indicate that the initial linguistic level of a child has no relation to the level of his or her improvement in the receptive level of word acquisition. Yet, children with a high grade in the Kaufman test had demonstrated a bigger improved in the use of the dictionary words,

and children with a high grade in the PPVT test had demonstrated a bigger improved in word definition.

When combining the initial linguistic level of the child, the levels of word acquisition and the different types of dictionary support – the research results show that: The combined interpretation does not contribute to more improvement in the receptive level, with no relation to the initial linguistic level of the child; The combined interpretation does contribute to more improvement in the word definition level for children with a higher PPVT level. The findings of this research and its educational consequences will be discussed in the discussion. We will elaborate on the limitations of the research and raise suggestions for further research.