

Do Babies Increase Vocabulary by Viewing Baby Media?

Tara Carlson, MS* and Kathy Stratman, PhD

Department of Communication Sciences and Disorders, College of Health Professions

Abstract. The American Academy of Pediatrics recommended that children under two years of age not watch TV or other electronic screens; however, the number of videos targeted at this age group continues to increase. Marketers claim their products will increase vocabulary and cognitive abilities; however, there is a lack of empirical studies. Research on brain development indicates that babies learn best by having salient experiences and interacting with their caregivers (Gopnik, Meltzoff, & Kuhl, 1999). Because of the possibility that some positive language learning can occur due to media viewing, more research is needed in this area with a focus on very young children. There is an abundance of information available about the positive relationship between vocabulary and home literacy routines (Foy & Mann, 2003; Senechal, LeFevre, Thomas, & Daley, 1998; van Kleeck, 2006). Research is needed comparing the increase in vocabulary that occurs as a result of viewing baby media with that of shared book reading.

Twelve children (12-30 months) were assigned to one of three groups during this 4-week study. Each week, Group 1 watched a 10 minute segment of a DVD “edutainment” program targeted at this young age group. Group 2 parents read books to their child for the same amount of time as the DVD group. Books were the DVD companions and covered the same vocabulary terms as the DVD. Group 3 was considered the control group and only pre- and post-testing were completed with no books or DVDs introduced. Differences between weekly pre- and post-tests revealed greater overall gain by the group that was read books.

1. Introduction

As a mother of a one year old boy with asthma, I found myself searching for a way to keep him sitting still for 30 minutes twice a day during his breathing treatments. After exhausting myself with attempts at reading and singing, I decided that maybe TV was the answer. I did not want him watching whatever program happened to be on the set at the time of the treatments, so I sought out videos of “substance.” I did some reading of DVD covers at the local book store and decided on several videos offered by Baby Einstein™. I went home, started the video, and my son was immediately enthralled. Several months later, I started work on my doctorate. Through my studies, I became increasingly interested in early child language and literacy development. As I learned more about the development of babies, I remembered my experience with the baby DVDs and wondered why my son was so enthralled and what, if anything, was he learning while viewing. As I looked further into the products, I learned that the statements on the DVD covers and the manufacturer’s website were not research-based, but rather parent testimonials. I had selected the DVDs because I was under the assumption that the covers were factual, that I was helping my child develop vocabulary, increase cognitive abilities, and get ready for school. The realization that these statements may or may not be true caused me to want to probe further.

2. Experiment, Results, Discussion, and Significance

Experiment

Twelve families with a young child, 12-30 months, were asked to participate in a 4-week study designed to compare the effects of viewing a DVD with the effects of being read a book on vocabulary development. Both the DVD and book introduced the same thematically based vocabulary terms.

At the beginning of the study, parents completed a questionnaire about their child’s normal television viewing habits including information about favorite programs, amount of viewing time each day, favorite non-television activities, and the daily amount of time spent with books. A pretest of receptive vocabulary was administered using picture cards of vocabulary terms that were introduced in the books and DVDs.

Each week the DVD Group was asked to watch a 10 minute segment of a DVD with vocabulary targeted at this young age group. The parents were instructed to have the child watch the video six times during the week. The

parents were instructed that they may view the video with their child; however, they were not to interact with the child while the video is running or review any of the vocabulary being promoted on the video. Each week the Book Group parents were asked to read books to their child for the same amount of time as the DVD segment running time. These books were companion books whenever possible and covered the same vocabulary terms as the DVD. Parents were instructed not to make extratextual comments during the readings. The parents and children in each of the groups were video taped in order for the researchers to document the amount of parent-child interaction that occurred during the assigned activities. These activities continued for four weeks with new thematic vocabulary terms being introduced weekly. At the end of each week, the researcher presented the child with receptive vocabulary recognition tasks covering that week's vocabulary terms. The final group of participants was considered the Control Group. The parents filled out the parent survey and the child was tested using the same receptive vocabulary cards as those used with the Book and DVD Groups. One week later the child was tested again with no introduction to the book or DVD vocabulary terms during the time between tests.

Results

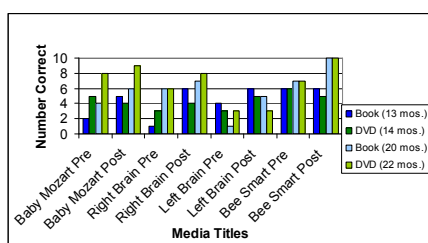


Fig. 1. Pre-/Post- scores for 1 year olds

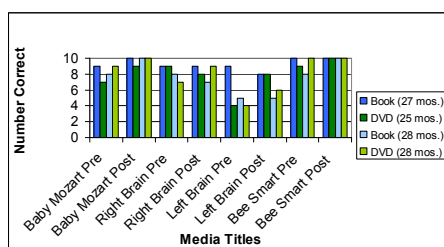


Fig. 2. Pre-/post- of scores for 2 year olds

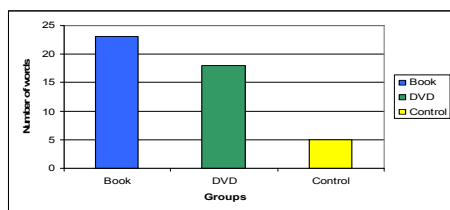


Fig. 3. Amount of overall vocabulary growth

Discussion

A greater overall gain was made by Book Group when compared to the DVD Group. The two greatest vocabulary gains were made by the two youngest participants in the Book Group. Most of the children in the DVD Group made only minimal gains. While the targeted vocabulary varied greatly by company and theme, the vocabulary associated with the Bee Smart products resulted in the best overall performance by all children. The vocabulary terms were all nouns but were not organized into any overarching theme. The poorest overall performance was associated with the Brainy Baby® Left Brain products. These products introduced vocabulary focused on concepts such as colors and shapes.

3. Conclusions

Four children were assigned to each of the following groups: books, DVDs, or control. They participated in receptive vocabulary tests to determine which experimental condition increased vocabulary. It was found that the Book Group made greater gains than the DVD Group.

4. References

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