

# Digitizing Development

Zoe Als<sup>1 3</sup>, Theresa Walters<sup>2</sup> MSN, RN, RNC-NIC

<sup>1</sup> Stephen F Austin High School Sugar land, TX

<sup>2</sup> Sugar Land Methodist Hospital, NICU, Sugar Land, TX

<sup>3</sup> Gifted and Talented Mentorship program, Fort Bend ISD, TX

## Abstract

The purpose of this study is to synthesize research on how the exposure of digital media affects the developmental growth of children in contrast to physical media such as books. Previous studies have shown the positives and negatives of specific forms of media, but not comparisons of various media forms in one concise writing. Rather than collecting data on my own, due to the scope of the research I cross-analyzed different sources that contain discussions on how reading to babies affects future literacy. I then looked into studies on how forms of digital media such as television, youtube videos, and ipad exposure affect the developmental progression of children. My research has concluded that minimal exposure to television is not as detrimental to the minds of young children as society portrays, however it should be limited to educational content and reading is an overall more favorable form of media to partake in.

## Introduction

The purpose of my investigation is to determine the benefits of physical media exposure versus digital media exposure on the developmental processes of young children. I want to deep dive into the neurological and growth aspects of this exposure. The synthesis of this information will allow current, previous, and future parents to determine the media that they believe is best for their child to consume through its relation to other forms of entertainment. I believe comparing reading to other forms of media, especially within the digital age, would truly put the importance of reading to your children into a more impactful perspective. I predict however that while reading may be overall more beneficial to the neurological development of children, digital media may not be as negative as we assume.

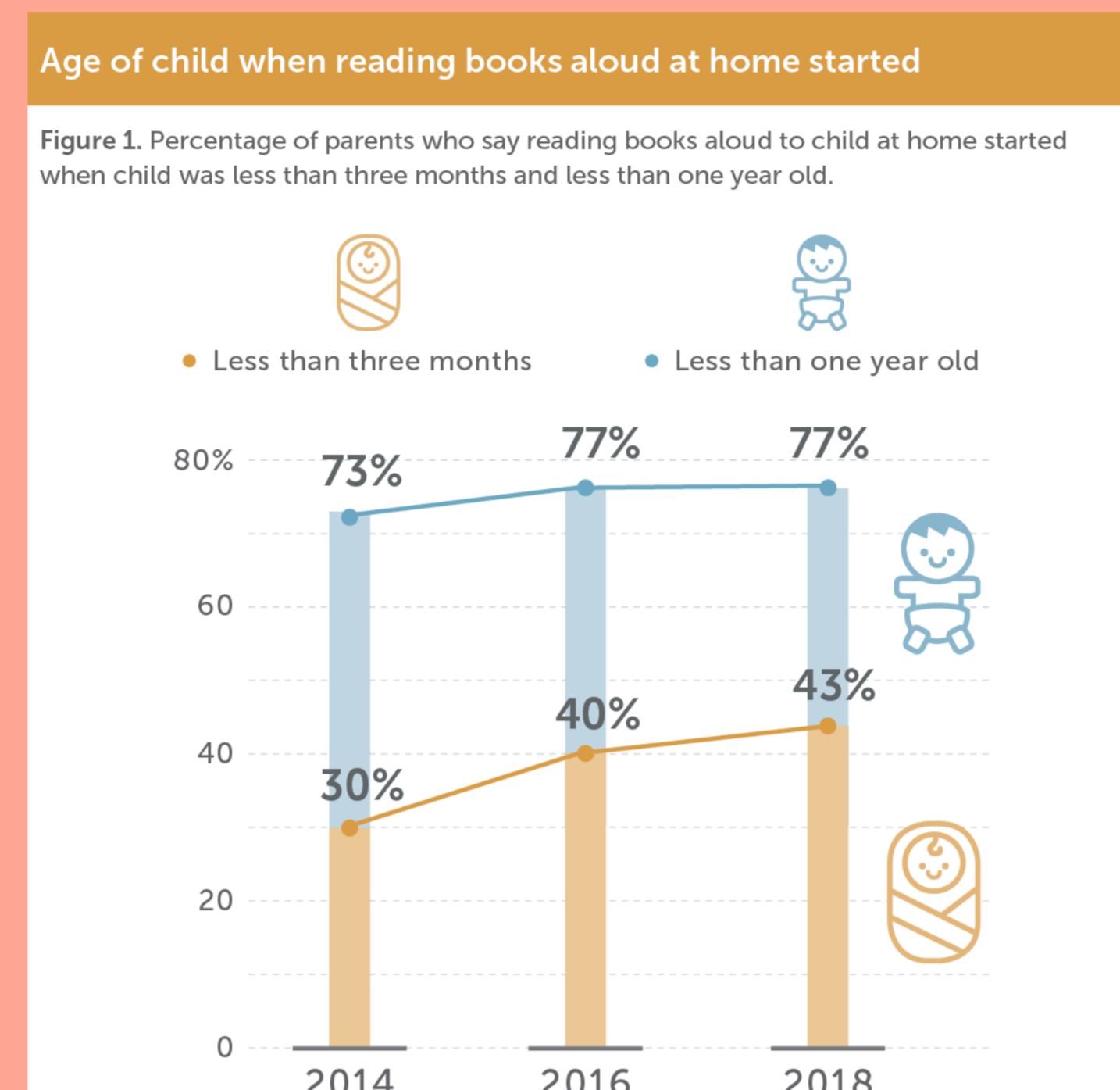


Figure 3

- Shows greater improvement on cognitive development through language tests of expression and reception
- No real negative side effects
- More accessible than digital media sources
- Educational content is that the only proves beneficial
- Children need interaction with others during this time for it be beneficial
- Aids in acquisition of general knowledge
- Provides access to entertainment and outworld exposure
- Attention span depletion is correlated to more entertainment media intake
- Not as accessible

Figure 1

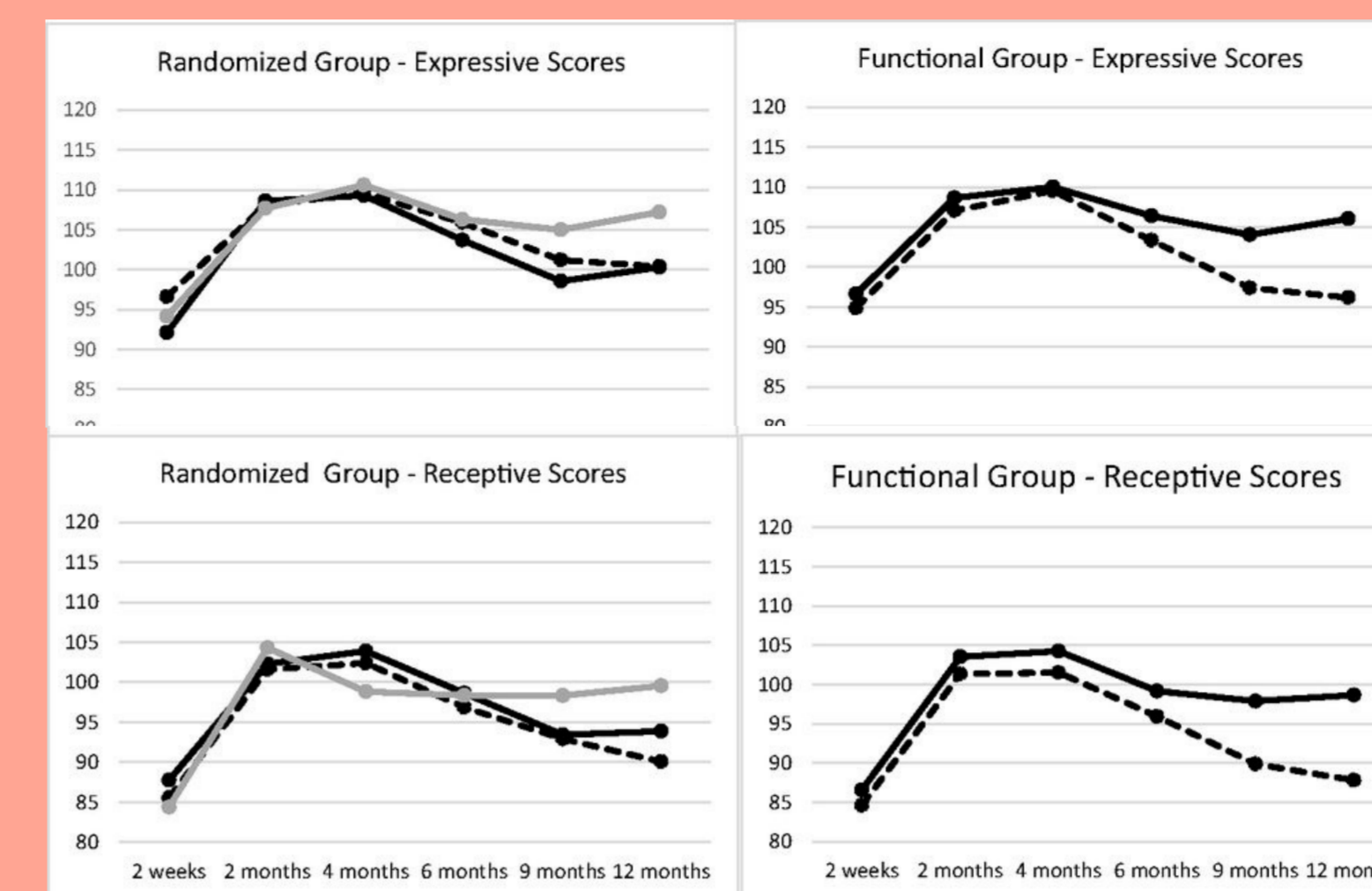


Figure 2

## Methodology

Due to the scope of the research I cross-analyzed different sources that contain discussions on how media affects the development of children. I could have sent out a qualitative survey to parents on how they believe their child's internet use has affected their ability to learn, grow, and interact, however that would lead to an array of unstandardized responses. I first began by seeking out information specifically based on how reading to infants affects their developmental growth. This gave me a baseline comparison of benefits to compare digital media outlets to. I then sectioned my digital media into two categories: educational and entertainment. This would allow for further analysis of what forms of media would be "okay" for children to consume. I then collected my data and to make it more digestible, compiled it into a Venn diagram.

## findings

Current literature has indicated that reading to infant s before the age of 12 months old shows a clear beneficial impact on language acquisition of the babies. Infants of parents who were committed to reading at least one book a day (7 books a week) had higher language scores in comparison to those who were asked to read less ; there was however no greater impact on infants who read more than those seven books a week. [ figure 2 ]

However, another finding of this study indicates that if the content is age appropriate, it may prove to be beneficial as it allows the children to interact and respond to stimuli, or it can have no deteriorating effects.

In another study the same results are found that educational content (regardless of time of exposure) proves to be beneficial in expanding the knowledge and perspective of young children. It also shows however, that there is correlation to cartoons and entertainment content affecting the attention spans of young children (ages 6 and under).

## Conclusion

My synthesization of previous studies concludes that while digital media exposure is not on its own beneficial, the way reading to infants is when coupled with outside engagement sources, such as parent interference during the watching of videos, it can prove to have similar benefits to reading. I believe that the true impact of comparing this information serves to fight against the fear mongering towards parents who allow their children to use electronic devices. While this analysis shows that there are negative effects to high levels of media exposure, the occasional use is not going to have long term effects on the neurological effects of children. Furthermore, when parents are willing to interact with and ask children questions during this limited digital time it can enhance their ability to comprehend and react to stimuli. This study also concludes the overall importance of reading to children at a very early age as it sets up a foundation for their education and learning development.