

Original Paper

An Analysis on Mobile and Interactive Media Use by Young Children: The Good, the Bad and the Unknown

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Received: June 18, 2019

Accepted: June 28, 2019

Online Published: July 5, 2019

doi:10.22158/ct.v2n2p89

URL: <http://dx.doi.org/10.22158/ct.v2n2p89>

Abstract

The introduction of mobile media to children of very young ages continues to be a topic of discussion in many academic and professional circles. Over time, the suggested guidelines specific to children and interaction with mobile and interactive technology have changed, yet there are still some unknowns regarding the impact of replacing actual human interaction with interactive devices. While there are certainly benefits to having children exposed to these forms of technology, there are potential drawbacks. This current opinion article seeks provide a narrative regarding current work that is related to children and their engagement with interactive technology.

Keywords

mobile, media, interactive, children, play, cortisol, attachment, behavior

1. Introduction

With the increase in access to mobile media, Radesky, Schumacher, and Zuckerman (2014) posit that there needs to be specific guidelines for children. In their article, the authors outline the good, the bad and the unknown of interactive media. “Interactive media, on the other hand, allow for contingent responses to children’s actions and thus may facilitate more retention of taught material” (p. 1) state Radesky, Schumacher, and Zuckerman (2014).

In keeping with the benefits of such technology, Radesky, Schumacher, and Zuckerman (2014) further indicate that “promising research suggests that interactive media such as learn-to-read apps and electronic books (e-books) may increase early literacy skills by providing practice with letters, phonics, and word recognition” (p. 1). Based on these findings, one can clearly see the benefit of mobile media for children, yet there is another side to the use of technological innovation for children. Radesky, Schumacher, and Zuckerman (2014) state that “...the use of mobile media to occupy young children

during daily routines such as errands, car rides, and eating out is becoming a common behavioral regulation tool: what the industry terms a ‘shut-up toy’” (p. 2). What we found interesting and want to provide some insight regarding relates to the statement that indicates that:

Because young children need to develop internal mechanisms of self-regulation, it needs to be determined whether mobile device use, although helpful in the short term, could be detrimental to later social-emotional outcomes when used as the principal way in which children are taught to calm themselves down (p. 2).

This is the premise of this opinion piece.

2. Discussion

The world is changing. The way we communicate now and with whom we communicate has brought about swift changes thanks in part to mobile media. Mobile media, while having its positive effects for and on young children, and can be linked to and with tactile functionality, neuropathway development, and such, can also have an impact on social/emotional regulation and development in this phase of life. If communication continues to be fortified more and more through media for children entering the schooling system, how foreign could the concept of human to human communication become? Exposure theory lends its belief to the idea that the more we are engulfed in something, the more we are able to learn, utilize, and grow. However, we wonder if the levels of engagement of mobile and interactive media limits the engagement and exposure time a young child may be spending playing outside and engaging with others.

Children’s media diet should contain open-ended, hands-on, imaginary, screen-free play. Children have access to a lot of passive entertainment, yet, there is little engagement in play that is active and that which is fueled by their imagination, which gives them opportunities to develop social, emotional, and cognitive skills that are necessary for a successful and fulfilling life.

The brain of a child is primed to receive and process information. This naturally extends to information provided by mobile media. When children are born, the primitive portions of their brain are capable of responding based on reflexes. As the child grows older, the brain begins to navigate more complex tasks and overtime; behaviors become less reflective and more intentional. The higher regions of the brain, the cortex, are responsible for purposeful behaviors and as such, are impacted by the use of technology.

There is a wealth of knowledge that a child can obtain from technological innovation, and this information impacts the ways in which their brains process data. At birth, the number of synapses per neuron is about 2,500, but by age two or three; it’s about 15,000 per neuron. As these synapses are formed, the brain’s ability to create pathways that will store, recall and reproduce information becomes easier and more evident. The more often an event occurs, the more likely it is that the brain pathways

related to that event will become stronger resulting in the behavior becoming more fluid. This suggests that early life events have a huge influence on the pattern of brain architecture as well as behavioral development. When taking in to account mobile devices and children, the more they engage, the less they are to be interacting with others which has the potential to impact their social skills.

Research suggests that cortisol levels increase and self-regulation is easier navigated when children carry safety blankets, or toys/animals. These types of practices involving such objects is dwindling, and we are now using mobile media (cell phones, tablets, etc.) to emotionally regulate heightened emotional states. The question that we continue to ponder is how and in what ways will this be shaping future generations? Attachment principles have often been linked to something that feels good through touch, now stimulation through interactive media is serving as a form of replacement. What new behaviors may be replaced with this change in how our children are now spending their time?

3. Conclusion

The realities of mobile media and artificial intelligence is just that; artificial. The complexities of human behavior are often ones that continue to baffle us into early and late adulthood, a concept that people often continue to struggle to grasp. At what point are we causing a hindrance to a skill set we have yet to master (communication with others) by shifting the focal point of communication to interaction with artificial intelligence? While technology continues to advance, we have seen media and its evolution become able to master something we all struggle to figure out—ourselves, our emotions, and how we engage with others. Play has often been the principle behind learning, but what we're playing with and how we play with it is a step in a direction we have yet to truly understand.

Reference

- Radesky, J., Schumacher, J., & Zuckerman, B. (2014). Mobile and Interactive Media Use by Young Children: The Good, the Bad, and the Unknown. *Pediatrics*, *135*(1), 1-3.
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