



News Articles, PAS Meeting Updates, Media, Social Media

PAS 2018: Studies analyze children's use of screen-based media

by Melissa Jenco, News Content Editor

Illustrated stories may provide optimal brain stimulation compared to audio and animated stories, according to new research being presented during the [Pediatric Academic Societies meeting](#) in Toronto.

The Academy recommends limits on screen-based media, so researchers set out to determine if a child's brain engages differently with audio, illustrated or animated stories.

They presented 27 children three different five-minute stories by the same author in different formats. Using functional magnetic resonance imaging, they looked at areas of the brain activated during each.

Results showed audio may require more cognitive strain, and animation may inhibit the imagination. Illustration seemed to provide a balance, encouraging imagination and reflection, according to the abstract "Goldilocks Effect? Illustrated Story Format Seems 'Just Right' and Animation 'Too Hot' for Integration of Functional Brain Networks in Preschool-Age Children."

The results "underscore the appeal of illustrated books at this age, raise important questions about the influence of media on early brain development, and provide novel context for AAP reading and screen time recommendations," study author John S. Hutton, M.D., M.S., said in a news release.

Dr. Hutton also will present findings of a pilot test of ScreenQ, a new tool to help pediatricians measure screen-based media use in children. The results are detailed in the abstract "Assessment of Screen-Based Media Use in Children: Development and Psychometric Refinement of the ScreenQ."

"In a single generation, the explosion of screen-based media has transformed the experience of childhood, from TV and videos, to an unlimited range of content available at any time via portable devices that can be challenging to monitor," Dr. Hutton said in a news release. "The emergence of these technologies has far outpaced our ability to quantify its effects on child development, human relationships, learning and health, fueling controversies among parents, educators and clinical providers."

Researchers tested ScreenQ on 27 children with a median age of just under 5 years. The tool assesses when and how much screens are used, content (e.g., educational vs. violent) and whether children view media with an adult.

They determined that a 10-item version of the tool proved to be "an efficient, valid means to assess screen-based media use in children in the context of AAP guidelines and cognitive-behavioral risks, warranting further development."

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Resources

- [AAP policy "Media and Young Minds"](#)
- [AAP policy "Media Use in School-Aged Children and Adolescents"](#)
- [Family Media Plan from HealthyChildren.org](#)
- [Common Sense Media](#)
- [PBS Kids](#)



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