

[Science](#)

Is E-Reading to Your Toddler Story Time, or Simply Screen Time?

<http://www.nytimes.com/2014/10/12/us/is-e-reading-to-your-toddler-story-time-or-simply-screen-time.html>

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Photo caption: The American Academy of Pediatrics advises against screen time for toddlers; however, story time is now often on a tablet. Credit: *Jessica Kourkounis for The New York Times*

Clifford the Big Red Dog looks fabulous on an iPad. He sounds good, too — tap the screen and hear him pant as a blue truck roars into the frame. “Go, truck, go!” cheers the narrator.

But does this count as story time? Or is it just screen time for babies?

It is a question that parents, pediatricians and researchers are struggling to answer as children’s books, just like all the other ones, migrate to digital media.

For years, child development experts have advised parents to read to their children early and often, citing studies showing its linguistic, verbal and social benefits. In June, the American Academy of Pediatrics [advised doctors](#)¹ to remind parents at every visit that they should read to their children from birth, prescribing books as enthusiastically as vaccines and vegetables.

On the other hand, the academy strongly recommends no screen time for children under 2, and less than two hours a day for older children.

¹ www.nytimes.com/2014/06/24/us/pediatrics-group-to-recommend-reading-aloud-to-children-from-birth.html?_r=0

At a time when reading increasingly means swiping pages on a device, and app stores are bursting with reading programs and learning games aimed at infants and preschoolers, which bit of guidance should parents heed?



Photo caption: Therese Madden and her daughter, Beatrice, 2, read “Clifford the Small Red Puppy” in Philadelphia.
Credit Jessica Kourkounis for The New York Times

The answer, researchers say, is not yet entirely clear. “We know how children learn to read,” said Kyle Snow, the applied research director at the National Association for the Education of Young Children. “But we don’t know how that process will be affected by digital technology.”

Part of the problem is the newness of the devices. Tablets and e-readers have not been in widespread use long enough for the sorts of extended studies that will reveal their effects on learning.

Dr. Pamela High, the pediatrician who wrote the June policy for the pediatrics group, said electronic books were intentionally not addressed. “We tried to do a strongly evidence-based policy statement on the issue of reading starting at a very young age,” she said. “And there isn’t any data, really, on e-books.”

But a handful of new studies suggest that reading to a child from an electronic device undercuts the dynamic that drives language development.

“There’s a lot of interaction when you’re reading a book with your child,” Dr. High said. “You’re turning pages, pointing at pictures, talking about the story. Those things are lost somewhat when you’re using an e-book.”

In a [2013 study](#)², researchers found that children ages 3 to 5 whose parents read to them from an electronic book had lower reading comprehension than children whose parents used traditional books. Part of the reason, they said, was that parents and children using an electronic device

² <http://onlinelibrary.wiley.com/doi/10.1111/mbe.12028/abstract>

spent more time focusing on the device itself than on the story (a conclusion [shared by at least](#)³ two [other studies](#)⁴).

“Parents were literally putting their hands over the kids’ hands and saying, ‘Wait, don’t press the button yet. Finish this up first,’ ” said Dr. Julia Parish-Morris, a developmental psychologist at Children’s Hospital of Philadelphia and the lead author of the 2013 study that was conducted at Temple University. Parents who used conventional books were more likely to engage in what education researchers call “dialogic reading,” the sort of back-and-forth discussion of the story and its relation to the child’s life that research has shown are key to a child’s linguistic development.

Complicating matters is that fewer and fewer children’s e-books can strictly be described as books, say researchers. As technology evolves, publishers are adding bells and whistles that encourage detours.

“What we’re really after in reading to our children is behavior that sparks a conversation,” said Kathy Hirsh-Pasek, a professor of psychology at Temple and co-author of the 2013 study. “But if that book has things that disrupt the conversation, like a game plopped right in the middle of the story, then it’s not offering you the same advantages as an old-fashioned book.”

Of course, e-book publishers and app developers point to interactivity as an educational advantage, not a distraction. Many of those bells and whistles — Clifford’s bark, the sleepy narration of “Goodnight Moon,” the appearance of the word “ham” when a child taps the ham in the Green Eggs and Ham app — help the child pick up language, they say.

There is some evidence to bear out those claims, at least in relation to other technologies. A [study](#)⁵ by the University of Wisconsin in 2013 found that 2-year-olds learned words faster with an interactive app as opposed to one that required no action.

But when it comes to learning language, researchers say, no piece of technology can substitute for a live instructor — even if the child appears to be paying close attention.

³ Quality of book-reading matters for emergent readers: An experiment with the same book in a regular or electronic format.
psycnet.apa.org/?fa=main.doiLanding&doi=10.1037/0022-0663.94.1.145

⁴ www.joanganzcooneycenter.org/wp-content/uploads/2012/07/jgcc_ebooks_quickreport.pdf

⁵ Roxby, Philippa. Does technology hinder or help toddlers' learning?
<http://www.bbc.com/news/health-22219881>



Photo caption: A co-author of a recent study said, “What we’re really after in reading to our children is behavior that sparks a conversation.” *Credit: Jessica Kourkounis for The New York Times*

Patricia K. Kuhl, a director of the Institute for Learning and Brain Sciences at the University of Washington, led a study in 2003 that compared a group of 9-month-old babies who were addressed in Mandarin by a live instructor with a group addressed in Mandarin by an instructor on a DVD. Children in a third group were exposed only to English.

“The way the kids were staring at the screen, it seemed obvious they would learn better from the DVDs,” she said. But brain scans and language testing revealed that the DVD group “learned absolutely nothing,” Dr. Kuhl said.

“Their brain measures looked just like the control group that had just been exposed to English. The only group that learned was the live social interaction group.”

Correction: October 19, 2014

An article last Sunday about the benefits and drawbacks of reading to toddlers from digital devices quoted incorrectly from comments by Claudia Raleigh, whose son, Teddy, was first allowed to use an iPad during his sister’s swim class. Ms. Raleigh said, “You know how hard it is to wait somewhere with a 2-year-old” — not “to sit somewhere.”