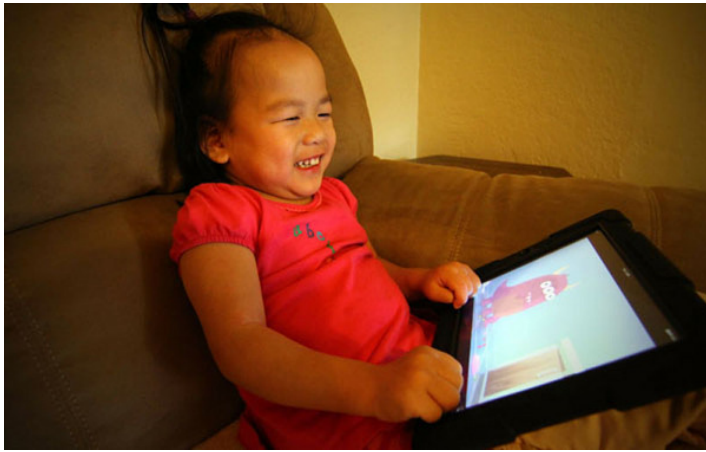


# IPads May Help Kids with Severe Vision Impairments

by Samantha Murphy  
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A child with cortical visual impairment uses an iPad.  
CREDIT: Credit: Muriel Sanders

The iPad has the potential to increase communication skills in kids living with severe vision problems and become a “life-changing therapy” tool, according to research conducted at the University of Kansas.

New findings reveal that Apple’s best selling tablet device may have the ability to improve cortical visual impairment, a severe neurological disorder resulting from brain damage that prevents children from interpreting visual information.

Muriel Saunders, assistant research professor at the University of Kansas’s Life Span Institute, was conducting a study about how children respond to adaptive switches – a tool that teaches kids with disabilities cause and effect skills needed for early language development – when her assistant asked to use an iPad to gauge interaction.

“We gave 15 toddlers between the ages of three and four with cortical visual impairment an iPad to play with and were completely shocked with the results,” Saunders told TechNewsDaily. “Children with the disorder don’t usually look directly at people and objects, but they were completely drawn to the light of the iPad and could interact with objects on the screen.”

Children with cortical visual impairment often work with therapists and parents using a light box – similar to the light box a doctor use to see an X-ray – so they have an easier time seeing lights and objects in high contrast.

“Someone with severe cortical visual impairment will spend a lot of time looking at lights,” Saunders said. “They might just sit and look at a light inside the house or typically they look out the window into the

bright sunlight. They might look briefly at something passing by, but they don’t look at faces and they don’t look at objects. So they appear to be blind.”

The iPads – which replicated a light box – ran an app called Baby Finger, in which kids can tap images and colored shapes that appear on the white background. [Read: Best iPad Apps for Kids]

“The results were remarkable,” Saunders said. “Their parents had never seen them interact with an object like that before.”

Parents of children with cortical visual impairment had been the first to notice the iPad’s potential as a therapy tool for their kids, with buzz about its benefits circulating the Internet and social media. However, according to Saunders, no formal research has been conducted so far about the iPad’s power to help children. She is currently writing a grant proposal to the National Institutes of Health to conduct a study.

Just as the iPad is being used with children with autism to help them adjust to sensory overload, there is a lot of potential to use the device as a teaching tool for kids with cortical visual impairment, Saunders said. “The iPad can not only be used to help them interact with the screen, it can also teach them how to control the things they see on the screen.”

Saunders noted that early intervention in the lives of children with the disorder is critical to their development and helping to improve their vision. With the proper techniques, the child’s brain may grow the cells needed in the cerebral cortex to begin understanding what their eye is seeing, so they develop the ability to interpret images.

“The iPad could be a huge resource in helping kids with cortical vision improvement see better in the future,” Saunders said.

Saunders’ work with switches is being conducted at the Junior Blind of America in Los Angeles with funding from the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

Reach TechNewsDaily senior writer Samantha Murphy at [smurphy@techmedianetwork.com](mailto:smurphy@techmedianetwork.com). Follow her on Twitter @SamMurphy\_TMN