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Article Review

Assistive Technology

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What is the study was about?

The article, Enhancing Learning with the Use of Assistive Technology for Children on the Autism Spectrum by Tin Fan, centers on whether the iPad can be an effective learning tool to help students with disabilities learn. It precisely focused on whether the tool could help autistic students increase their language arts skills.

What did they investigate?

The author wanted to know in what ways the use of the iPad could assist in language arts instruction for non-verbal autistic children aged 7-10. For the purposes of this study, the author defines the term language arts as teaching phonics and letter recognition.

What was the sample size?

The sample size was relatively small with only 4 students participating.

How did they go about the investigation?

An experimental approach was used via teacher action research by collecting observation data on students. Fan examined four male autistic students between the ages of 9 and 11. All of the students had a speech and/or language impairment as well. Fan, was actually the teacher of record of the students.

All of the participants and their parents were informed of the nature and scope of the study and parents agreed to have their child participate with written consent.

The method of research was observations of the students and their progress over the course of the school year in the area of phonics and letter recognition. Each student was given an iPad for individual use. Participants utilized three different apps that provided instant reward gratification with audio and text to support language arts acquisition skills. Each student was to learn 2-5 letters per month. Data was collected each month using four sets of comprehension questions aimed to help the examiner determine if the student was identifying and matching target letters.

What did they find out?

The study showed, through teacher observation, that every one of the test subjects improved their language arts skills when using the iPad. In addition, the author found that visual discrimination in the students had improved as well. Plus, due to the instant rewards in the apps, students were motivated to continue working. They also improved their fine motor which in turn improved their writing skills.

What recommendations were made?

The author recommends that additional research should be done to understand the implications the iPad can have on students learning. As technology continues to advance the author suggest that research should be done on children of all ages, especially those on the autism spectrum, using the iPad as a tool to improve fine motor skills, communication, language arts, math and executive functioning skills. Also, there should be a rubric for every app to determine the effectiveness for student learning skills.   
  
How this could be applied to the work that I plan to do

I think this could be applied to my work as a special needs teacher when considering assistive technology devices for the students I work with, specifically those with autism. However, I also believe iPad can be useful for other students who have communication and/or cognitive challenges because it is a form of technology that most students are excited to use. As highlighted in this study, I think that the ability to customize the tool to the student needs will motivate the student to want to learn especially because of the instant reward that are built into most apps.

I also believe that the iPad can replace many of the other devices just because can be used in many different ways. It cost considerably less than some AAC devices. Plus, it’s lightweight and portable compared to other devices.

Last, tell us what you think of all this.  This is your opportunity to apply it to your own personal experience.  Share the overall value of the piece, and what you think it all amounts to.

I think this article is useful in highlighting the possibilities of using iPads for learning and communication. I agree with the author that there needs to be more research into all the possibilities this tool can offer in the classroom. After visiting Patins Project and learning about currently available devices, I think this can replace many of the heavy, expensive, one use devices that I learned about. I think the iPad can be even useful for coordination issues because it is touchscreen making it easier to use than a keyboard.