

iPad Facts for Supporting Students with Autism & Other Exceptionalities



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With the inception of the iPad and the surge of app development for children with Autism Spectrum Disorder (ASD), the iTunes “App” Store where iPad applications (typically referred to as “apps”), are purchased for classroom implementation can seem a little overwhelming at times! Nonetheless, the user-friendly nature of the tablet, its accessibility, and its relatively low costs have changed the way many learners with ASD can, for example, learn new skills, meet curricular expectations, utilize augmentative communication, and access required accommodations (Banda, Grimmett, & Hart, 2009; Mang & Wardley, 2012). The following facts can help with building a strong entry level foundation of professional knowledge and skill to support students with ASD in your classroom through the use of iPad-based tablet technology.

Devices

A range of tablet devices are currently available, falling primarily into one of three categories: (a) the iPad, (b) Android tablets, and (c) Windows tablets. Although variety and price varies, the iPad has dominated in the education field, with iPad sales in school doubling each year (Travlos, 2012). The primary reason for this participant success is the availability of desired apps, as well as the presence of built-in accessibility features which provide immediate options to meet the needs of a range of learning styles. Currently, the iTunes store has over 40,000 educational-based apps available, including a significant portion of online textbooks and other learning resources available on interactive iBooks, a framework for building customized teaching and learning materials. Apple has also created iTunes U, a free, user-friendly learning management system which allows academic content sharing at any age, grade, or level (apple.com/education/ipad/itunes-u/). In comparison, other, similar devices are more limited in the educational sector.

Accessibility

One of the most valuable characteristics of the iPad is its built-in accessibility. These features are created for individuals with various learning styles, challenges, preferences, and/or disabilities, adapting the presentation of information for vision/hearing/communication, physical/motor skills, and learning/language/literacy needs. An overview of these features are available online at apple.com. To find these options on the iPad itself, go to Settings -> General -> Accessibility. Guided access, text-to-speech, speech-to text, and zoom are some other options which provide accommodations for individual learning needs.

Guided Access

Some students are prone to exiting target instructional apps for more preferred and/or reinforcing apps, creating a situation of off-task time that should be devoted to learning. The guided access option allows educators and/or parents to lock the screen (wholly or partially) and disable the iPad's home button, enabling a greater likelihood of on-task behaviour.

Text-to-Speech

Text in documents, iBooks, notebooks, online documents, etc., can all be read aloud at any point by enabling or "turning on" this built-in option. Simply choose the nationality of the voice, and each time text is highlighted on the iPad, it is then "spoken" aloud.

Speech-to-Text

This feature is only available in models newer than the iPad2 (e.g., iPad Mini, iPad Air). The built-in keyboard microphone, if utilized, transcribes spoken words with impressive accuracy into electronic text.

Zoom

Turning the zoom feature on will allow users to zoom in on (i.e., magnify) any portion of the screen—or within apps themselves—with a three-finger tap.

Finding Apps

Apps can be overwhelming when looking at the tens or hundreds that

appear after a search in the App Store. In order to make the searching process more efficient, consider apps or websites that are specific to special education or ASD to help find the app that is suitable for a particular student's needs with greater efficiency and accuracy.

Apps for Teachers

Apple itself has also created a new category in their online offerings: Apps for Teachers found on their website. This includes information about traditional academic subject areas, as well as special education-based apps. This category can be found within the Apps for Teachers site by scrolling down to "Accessibility" which launches "Special Education Apps" in the iTunes store organized by subcategories such as "Communication."

Apps for Social-Emotional Growth

One of the most significant benefits of using the iPad for students with ASD is the benefit of teaching social skills in a systematic manner. Since students with ASD do not typically acquire social skills by observation alone (Myles, Simpson, Ormsbee, & Erikson, 1993), targeting skills with relevant, skills-based apps can be beneficial.

ABA-Based Apps

In the recent National Standards Project completed by the National Autism Center (2009), the majority of strategies with a strong evidence base are found with the field of Applied Behaviour Analysis (ABA). Some of the below ABA-based tools are tools for the needs of students, and others are developed for the ABA-based needs of educator and clinicians.

Apps for Literacy Support

A range of apps are available to support literacy-based classes, as well as literacy needs, acting as tools for supporting students who struggle with reading, writing, organization, and more. Many of these are similar to apps that many be familiar to teachers, students, and parents from their experiences with Special Education Amount (SEA)-funded hardware and software purchases (Ontario Ministry of Education, 2013). However, they may not have the same level of complexity as the laptop-based software. On the other hand, they may have a sufficient number of features to support in-class needs for junior, intermediate, and high school learners who need

accommodation and support for success as independent learners in a literacy-infused environment.

In Sum

Along with the pedagogical experience and critical decision-making skills of professional educators, these facts related to available devices, accessibility features, finding apps, apps for social-emotional growth, ABA-based apps, and apps for literacy support provide a framework for utilizing the iPad successfully for students with ASD.

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Burke and Cerniglia showed that children with ASD were able to learn to follow instructions with up to four steps in a relatively brief period of time

1990, as cited in Koegel, L.K., Koegel, R. L., Harrower, & Carter, 1999, p 177).

As with teaching self-initiations, described in article 3, continue using the motivation strategies while teaching the child with ASD to respond to multiple cues. Burke and Cerniglia (1990, as cited in Koegel, L.K. et al., 1999) also demonstrated some generalized responses following the intervention period. The ability to respond to multiple cues in the environment may also increase the child's ability to access learning opportunities in their daily lives and decrease the need to break instructions down into single steps. This may allow the child to be involved more in typical peer groupings with less direct adult support required.

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