Technology in Special Education

Students with multiple exceptionalities can greatly benefit from using technology in the special education classroom. The literature for technology in special education emphasizes Assistive Technology, as well as other modern educational technologies that are used for students with exceptionalities.

Assistive Technology

The Individuals with Disabilities Education Act defines assistive technology as "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability" (Mittler, 2007). More generally, an assistive technology device must increase, maintain, or improve functional capabilities of a child with an exceptionality (Dell, Newton, & Petroff, 2008). A wide variety of assistive technologies are available to support student learning: including screen readers, speech-to-text software, and augmentative communication systems. A key determinant for effective assistive technology use is finding an appropriate match between the assistive technology tool, the students' exceptionality, and the task. Therefore, the process of finding the right tool may require a trial and error approach (OTF, 2014).

According to a report from the Toronto District School Board, the majority of principals report that assistive technologies have produced major benefits for their special education students (Ontario Ministry of Education, 2013).

However, they identify a number of barriers to access, including cost, limits of equipment bandwidth, and training for teachers and Educational Assistants to support students' use of the technology.

Modern Educational Technology for Students with Exceptionalities

While assistive technology has had a long-standing discourse for its effectiveness in special education, studies are beginning to show that commercially available digital technologies can have a positive impact on students with exceptionalities (Dell, Newton, & Petroff, 2008). Application developers, device manufacturers, and the media make bold claims that devices such as handheld touchscreen tablets can be effectively used in the instruction of students with exceptionalities (Campigotto, McEwen, &

Demmans Epp, 2013). However their use in both the regular and special education classrooms have been under-investigated. Therefore, studies of mainstream, commercially available digital technologies and applications such as the iPad and interactive whiteboard have only begun. In a recent study by McEwen (2014) for instance, students with ASD made significant gains in communication skills and social interactivity with the use of handheld iPod Touch devices.