**Using iPads in the Classroom to Help Improve Academic Gains for Students with Disabilities**

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### Abstract
Students with disabilities have a difficult time making academic progress in the classroom. Depending on the type of disability, students need various modifications and support to assist with academic tasks. This literature review examines the effectiveness of the use of iPads to help improve achievement for students with disabilities. Both benefits and difficulties of using iPads in the classroom are explored with an emphasis on how iPads can be used to improve instruction for students receiving special education services. The findings of this literature review confirm that iPads are an effective piece of technology in the classroom, and suggestions for implementing iPads into daily classroom instruction are provided. In addition, areas of further investigation and research are identified.

### Background
- Today's students are known as iGeneration students due to the escalating use of technology both inside and outside of school (Buck, Flanagan, Miller, & Bassette, 2012).
- School districts across the nation are embracing the use of mobile devices because they easily blend into the mass of other students with the signature white earbuds.
- Students with disabilities may need support in the realms of communication, academic tasks, and daily living skills.
- iPads are a tool that can help in all of these areas.

### Personal Experience
- I became part of an iPad pilot program where the students in my 12.1 Algebra class are all provided with iPads.
- Students use iPads all school and can also take them home with them.
- District provides education apps.
- Students can download their own apps with their individual apple IDs.

### Understanding Disability
Most of the research related to students using iPads in the classroom has focused on intellectual disability, autism and emotionally and behavioral disorders.

<table>
<thead>
<tr>
<th>Intellectual Disability</th>
<th>Autism</th>
<th>Emotional and Behavioral Disorders</th>
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<tbody>
<tr>
<td>Have an IQ at least one standard deviation below the mean</td>
<td>Typically require some type of intervention to help with social skill development</td>
<td>Have lower amounts of creativity received in high school</td>
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<tr>
<td>Need to help support a student become more included in school and society as a whole</td>
<td>Rely heavily on visual cues to help teach skills and remind students of previously learned skills</td>
<td>Lower grief</td>
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<tr>
<td>The student’s educational program includes instruction on what areas of functioning the student may need assistance with in order to fully participate</td>
<td>Rely on visual cues to help teach skills and remind students of previously learned skills</td>
<td>Lower grief</td>
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<tr>
<td>to transition into post secondary life</td>
<td>Rely on visual and auditory cues to help teach skills and remind students of previously learned skills</td>
<td>Lower grief</td>
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<td>Research on person centered planning, self-determination and the needs of the students who choose their own apps this helps promote self-determination (Hepok &amp; Herberg, 2013)</td>
<td>A research study of using iPads to create videos used as social stories for students with autism</td>
<td>Lower grief (Hepok &amp; Herberg, 2013)</td>
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### Assistive Technology vs. Instructional Technology

- Assistive Technology (AT) is a piece of equipment or product systems, whether acquired commercially off the shelf, modified, or custom made, that is used to increase, maintain, or improve the functional capabilities of a child with a disability (Beals, Langan, Miller, & Bassette, 2012, p. 47).
- Instructional methodologies are educational materials that help teach concepts to all students. This includes any technology that is used in the classroom to teach content and improve academic skills (Koegler, Wipf, & Thompson, 2012).

### Rationale for using iPads
Do iPads fill the role of Assistive Technology and Instructional Technology for students with disabilities?

- Research has shown that using iPads in the classroom does increase motivation.
- iPads shift the control to the students.
- Offer instant gratification.
- Students who may have attentional difficulties can complete a problem on an iPad can receive feedback immediately.
- Students with sensory integration struggles may respond better to touch screens, rather than using a computer and a mouse.
- iPads also help students bridge the gap between school and home.
- Students can be introduced to educational apps at school, and continue to use them at home.
- AT or instructional technology that does not make the student stand out.
- AF and other education professionals are noting that students are embracing the use of mobile devices because they easily blend into the mass of other students with the signature white earbuds hanging around their necks or stuck in their ears (Newton & Dell, 2011, p. 45).

### Benefits of Using iPads
- Students can create subjects and dividers.
- Effective Instructional Tool
- Many teachers already know how to use iPads - training to use the equipment as AT or IT is easy.

### Limitations:
- I have not had enough time to explore self-determination with students and how the iPads can assist with students developing their own goals.
- No comprehensive list of various apps – may be more apps that myself or researchers are not aware of.

### Analysis: My Experience
- It was my hope to make the iPads the center of my classroom instruction.
- The students all had notebooks set up on their iPads so no paper copies of notes were provided anymore.
- All of my assignments were completed on the iPad and then submitted to me through the iPads.
- I used apps as formative assessment tools and was able to do quick checks of understanding.
- Each student had different lessons and practices on the iPad based on their academic needs.
- Many of my students found games they enjoyed playing and sometimes it became difficult to get them off their own apps to focus on academic tasks.

### Conclusion
- More research should be done on what apps are most effective at improving academic skills in specific subjects.
- More research is needed on how special educators can flip their classrooms and use technology to the fullest potential to help students achieve academic goals.
- While some students may not make academic gains, I did not find any studies, including my own experiences, where students’ skills decreased.

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