Title: Incorporating an iPad To facilitate letter recognition and enhance academic achievement.

Presenter: Meiky Morales

Abstract: The study presents the results of an integration of an iPad application during a reading intervention conducted in a High School to facilitate letter recognition and academic achievement for students with Intellectual Disability ages 14-22 years old in a self-contained setting. The participants were two males and two females, grades 9-10.

Statement of the Problem: Students with Intellectual Disabilities present constrained intellectual functioning and adaptive behavior. Helping special needs students to develop independent living skills and cognitive, physical and sensory abilities is a priority for teachers. According to Hughes (2011), helping individuals with Intellectual Disabilities develop independent living and employment skills continues to be a primary concern among teachers and parents alike. Assistive Technology (AT) increases the potential in students with intellectual disabilities. It enables full participation of special needs students in the school, work and the community. AT helps overcome obstacles that might segregate exceptional students. Students with significant Intellectual Disabilities repeatedly depend and moderately rely on parents and teachers to complete tasks. AT addresses the student's learning difficulties and improves each individual need. IPad Apps enable communication, facilitate time management skills, self-regulatory skills, and reading and fine/gross motor skills. According to White 2003, AT helps individuals with diverse types of disabilities. According to Shah (2011), portable media devices with built-in accessibility features can present independence to all individuals, but especially those with disabilities.

Purpose and/or Research Questions: The purpose of this study is to examine how effective the integration of the ABC Alphabet Match App of an iPad is to facilitate letter recognition and

academic achievement of students with significant Intellectual Disabilities in a self-contained classroom during reading Instruction.

Literature review: Assistive Technology offers an effective contact with the general curriculum. According to Zhang (2000), assistive technology increases the potential of students with exceptionalities. Even though IPads are capable of executing same operations like desktops and laptop computers; IPads are capable of multi screen touch that can improve poor motor skills and enhance learning styles such as auditory, visual and kinesthetic in individuals with significant intellectual diabilities. As evaluated by Aronin (2013), students feel attracted to IPads because it smoothes their poor fine motor skills while it enlightens the students' desire to engage in further activities. IPad apps reinforce spelling, reading, writing and sentence/phrases formation. The majority of Apps are inexpensive and offer no cost to download (Hutchison, 2012). As stated by Wepner & Bowes (2004), when students use AT tools they escalate the positive correlation that exists between the acquisition of technology skills and academic achievement. Bouck (2012) writes that technology has the possibility to underscore learning engaging students and improving instruction. As mentioned by Dawn (2013), Individuals with and without disabilities use computers and portable devices for diverse purposes such as to watch movies, play games, take pictures, videos and to socialize. Bouck (2012), the amount of students with disabilities making use of technology apart and unrelated to academics is maximizing daily at a fast pace. Technology should be introduced into the classrooms with a learning purpose. The technology requirements of the NCLB include resources and best practices on technology literacy and effective teaching using technology.

Research Methodology: The research Intervention consisted of using a letter recognition matching application of an iPad to facilitate fine motor skills while motivating and engaging

students in reading. The teacher implemented the iPad every Monday and Wednesday during reading classes when practicing matching capital letters with lower case letter for 10 minutes. Before the implementation of the intervention the teacher observed students attitude towards the assignments. Eyes focusing on activity, attitude, positive body language, participation, confidence, level of engagement, performance and attention were observed, tallied and compared with pre-intervention activities. The teacher also gathered artifacts such as students matching worksheets matching lower case letter with capital. After the intervention the teacher reviewed the worksheets and compared students' grades related to letter recognition and matching letters with first grading term and graded activities completed before the intervention. Finally a survey was individually assigned to a teacher and Para-professionals with questions concerning students' engagement, discipline and on-task behaviors. The results of the intervention survey were compared with the results from a pre intervention survey. The action researched was conducted for eight weeks.

Findings: The teacher expects to find an increase in engagement, motivation and academic achievement of students with significant Intellectual Disabilities. Students with significant intellectual Disabilities will be able to identify letters with 80% accuracy while using the ABC Alphabet Match App of an iPad. The students are expected to demonstrate easy access to the activities. Students will develop fine motor skills using the multi-touch interface to help build strength, control, and dexterity. The use of the iPad app will enable them to stay on-task, enhance their memory skills and execute function tasks that will target their cognitive and academic achievement. Students will develop visual perception tracking, handwriting and motor skills.

Implications for the Field: The use of technology in the classrooms as a resource and educational tool has benefited the participation of children with disabilities such as Cerebral Palsy.

Technology is in constant growth and it's rapidly substituting basic tools for more specific, targeted, useful ones. Using technology tools in the classroom that will expand and supplement the needs of students with developmental disabilities should be every teacher's priority. Some of the implications of this study are the acquisition of iPads for each student.