



PARENTAL AND STUDENT PERCEPTION OF THE EFFECTIVENESS OF ASSISTIVE TECHNOLOGY AND IPAD USE

This study was completed by Sharon Anisman as a requirement for completion of her Masters of Psychology Degree. The research looked at the perceived efficacy of iPad training from the perspective of parents and students. To date, such a study is lacking.

A short checklist was designed which allowed both students and their parents to rate how effective their academic achievement, self-regulation and executive functioning had become after the iPad training at SLP4ALL.

Parents were asked to complete a behavioural checklist called the Behavior Inventory of Executive Functions (BRIEF). The BRIEF is a checklist which allows parents to rate their children's behaviours around focusing, attention, impulsivity, and behaviour regulation, all required to complete tasks such as chores and their ability to start, plan, organize and execute tasks effectively. Psychologists call this **Executive Functioning**.

The study set out to investigate the following questions:

- What were the perceived benefits of iPad training for students with either a Learning Disability (LD) and/or Attention-Deficit/Hyperactivity Disorder (ADHD)? Do parents see those benefits differently than students?
- What is the relationship between these perceived benefits and parents' ratings on a measure of executive functioning (BRIEF)?

Through the help and cooperation of Ms. Dana Sahian, Speech-Language Pathologist (SLP4ALL) and Melissa Cait, Psychologist and the staff at the Cornerstone Psychological Services, 28 students and their parents were identified for this study. Informed parental consent was obtained. Participants had previously undergone iPad instruction at SLP4ALL. Inclusion in the study required a diagnosis of either a Learning Disability (LD) and/or Attention-Deficit/Hyperactivity Disorder (ADHD) through a medical report, or a psychological/psychoeducational report.

Results

Regardless of previous exposure to technology both students and their parents perceived the iPad training to be effective across ages and diagnoses of students. Training was effective across gender (regardless of whether the student was a male or female).

Students and parents alike perceived improvement in academic achievement in areas of reading, writing, executive functioning and self-regulation following iPad training. Students specifically noted they had better enjoyment of reading and had developed better study skills post-training (e.g. able to take better notes). They also noted that they were now able to study more independently.

Similarly, parents perceived improvements in their children's achievement, executive functioning and self-regulation post-training. Parents noted that older students specifically improved in their study skills and ability to make better study notes.

**PARENTAL AND STUDENT PERCEPTION OF THE EFFECTIVENESS OF ASSISTIVE TECHNOLOGY
AND IPAD USE**

2

Regarding the survey and the BRIEF (Executive Function inventory), students' perceived improvement in literacy was related to their parents' perception that their children were also better able to plan, organize and monitor their schoolwork (cognitive regulation). As student perceived study skills improved, there was a relationship with parent ratings of better self-regulation for their child. After training with the iPad, parents perceived their children to improve in both their ability to transition (shift) between activities or tasks (shifting attention) and emotional control for their child. Also, parents' ratings of their child's improved study skills post-training were related to their child's shifting attention abilities. Overall, the study highlights the effectiveness of personalized technology training in advancing the needs and academic achievement of students with an LD and/or ADHD diagnoses.

Research Team:

Sharon Anisman, M. Psych
Hadley Koltun, PhD. C., Psych
Dana Sahian, M.Sc., SLP, Reg. CASLPO
Melissa Cait, M. A., ABSNP, C. Psych
Sharon Domb, MD, CCFP, FCFP

This summary is being shared with permission from its author, Sharon Anisman, M. Psych.,
Adler Graduate Professional School
Thesis supervisor: Hadley S. Koltun, Ph.D., C., Psych, Psychologist, JVS Toronto