

# Request #: 435 - PSY - Dissertation

## App-Based Technology and Academics in Children with Autism Spectrum Disorder

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December 05, 2019

### Background

I am planning on conducting a three-part dissertation. The first part is a single-case design study looking at an academic number and letter learning tablet application with preschool-aged children with ASD or developmental delay. The second piece is a meta-analysis of single-case design studies looking at app-based academic interventions for children with ASD. The third study is a sample of parents of children with ASD inquiring in qualitative interviews about their perceptions of academic-based technology for intervention as well as general questions addressing technology and the ASD population.

### Sample

I have collected the single-case design data with 5 preschool-aged participants. I plan to collect qualitative data with approximately 10 parents or until we reach saturation.

### Hypothesis

The use of tablet applications is becoming more popular in school and clinical settings when working with children with ASD. I propose that these tools can be useful and efficient ways to teach needed academic skills to children with ASD. 1. Is a letter and number learning application effective in teaching these skills to preschool-aged children with ASD? 2. Is a letter and number learning application more effective when measured with expressive or receptive language? 3. Determine which app-based academic interventions are currently used by researchers, clinicians, and education professionals. 4. Determine the effectiveness of app-based interventions in teaching academic skills to children and adolescents with ASD. 5. Determine the effectiveness of app-based interventions in teaching academic skills to children and adolescents with ASD across condition variables (e.g., age, race/ethnicity, cognitive ability). 6. What are parent perceptions of app-based academic interventions?

### Progress

Data collection is complete for the single-case design project, and I am currently running data analyses. Data collection for the meta-analysis project will be underway within the next few weeks. We are ironing out a few search terms. The third project is still in development

### Request

I am seeking ongoing help during my dissertation. This may include design assistance, analytic consultation, etc.

### Timeline

I am hoping to propose my dissertation at the end of spring or early in the fall. The bulk of the help I will need from the stats studio will take place in the spring 2020 semester.