

# **Task Performance for Adolescents with Autism Spectrum Disorders**

## **Abstract**

High school students with autism in a transitional/postsecondary program for students with intellectual disabilities struggle to perform/recall functional skills. Challenges in performing daily living skills may result in limited levels of independence. The purpose of this study is to examine the efficacy of task analysis among secondary students with intellectual disabilities.

## **Statement of the Problem**

High school students with dual identification of intellectual disabilities (IND) and autism spectrum disorder (ASD) are more likely to encounter difficulty with performing and recalling functional tasks necessary for independent living. The prominent challenges faced by students with ASD in mastering independent living skills becomes increasingly apparent during their final years in high school. Upon completing their postsecondary program, the families of these students encounter a limited number of options and opportunities for their children. Broadening students' knowledge and capabilities to complete functional tasks may provide students with opportunities to live lives with minimal limitations and increased independence. The challenges individuals with ASD face performing tasks can result from a number of factors including: difficulties associated with working memory, which can affect memory functioning by creating frustrating and difficult situations since working memory tasks require physical manipulation rather than only maintenance of information (Mayes & Calhoun, 2004). According to this statement, modeling or asking to perform skills may be extremely difficult for IND/ASD students depending on the complexity of the skill and deficiency in memory functioning. Mayes and Calhoun (2004), further implicated that another cause for the lack of recall/performance of basic skills can be due to the failure to reinforce the skill in a way the student would better

understand or failing to require the skill to be. Beneficial and evidence-based practices utilized to help students learn how to perform these tasks include: task analysis, video modeling, functional behavior skills training (FBST), and virtual errands task (VET).

### **Purpose and Research Questions**

The purpose of this study is to examine the effects implementing a task analysis approach. The following research question will be investigated: How effective is the task analysis approach (on an iPad) to help individuals with IND/ASD develop functional skills in a transitional/post-secondary program for students with intellectual disabilities?

### **Literature Review**

Previous research has been conducted to show the efficacy of instructional tools and interventions implicated in Transitional and Post-Secondary Programs for students with Intellectual Disabilities (TPSID) in order to facilitate recall/performance of multi-step functional skills. The inability to perform basic functional tasks may decrease the level of independence which the individual can achieve, therefore, hindering him or her to live as self-reliantly as possible (Parker & Kamps, 2010). Although, it has been suggested that adolescents with ASD and IND face difficulties regarding information processing and retention, many intervention strategies have helped these individuals recall functional skills (Speirs, Rinehart, Robinson, Tonge, & Yelland, 2014). Beneficial and evidence-based practices include: task analysis, video modeling, functional behavior skills training (FBST), and virtual errands task (VET).

When conducting task analysis with adolescents identified as ASD or IND, the teacher must break down functional tasks which the student may be demonstrating difficulty in performing independently. The steps may or may not include written steps but are visually depicted in a sequential order. Video modeling may be used alongside task analysis by providing

a more detailed representation of the expected task by incorporating an individual (usually the teacher), modeling the expected task in its simplest form. The video is demonstrated to the student, pausing and rewinding as necessary. FBST is a program that utilizes applied behavior analysis principles (ABA) such as, prompting, reinforcement, extinction, task analysis, and data collection in order to teach functional skills (Reitzel, et al., 2013).

### **Research Methodology**

The study will be conducted in a Miami-Dade public high school TPSID setting. Five students identified with IND/ASD will participate in the study. The special education teacher will work with the facilitating instructor to incorporate task analysis during vocational skills instruction. The special education teacher will be responsible for following the ‘Unique Learning’ curriculum with the class during the implementation of task analysis while implementing the strategies and collecting data. Data will be collected on the following variables: (a) students’ level of proficiency per skill (b) the number of errors made, and (c) duration of attempt from beginning to end.

### **Results**

Research findings will be available in time for the conference and will be presented

### **Implications**

Tasks which require more steps to complete prove to be the most difficult for adolescents with IND/ASD to remember and perform adequately. Adolescents with ASD have demonstrated difficulties with information processing and retention yet many intervention strategies have helped these individuals recall functional skills (Speirs et al., 2014). Several students have

demonstrated successful results to such strategies, suggesting that combined task analysis approaches can result in improved task performance.

### References

- Mayes, S., & Calhoun, S. (2007). Learning, Attention, Writing, and Processing Speed in Typical Children and Children with ADHD, Autism, Anxiety, Depression, and Oppositional-Defiant Disorder. *Child Neuropsychology, 13*(6), 469-493. doi:10.1080/09297040601112773
- Parker, D. & Kamps, D. (2011). Effects of task analysis and self-monitoring for children with autism in multiple social settings. *Focus on Autism and Other Developmental Disabilities, 26* (3), 131-142.
- Reitzel, J., Summers, J., Lorv, B., Szatmari, P., Zwaigenbaum, L., Georgiades, S., & Duku, E. (2013.). Pilot randomized controlled trial of a Functional Behavior Skills Training program for young children with Autism Spectrum Disorder who have significant early learning skill impairments and their families. *Research in Autism Spectrum Disorders, 7*(11), 1418-1432. doi:10.1016/j.rasd.2013.07.025
- Speirs, S., Rinehart, N., Robinson, S., Tonge, B., & Yelland, G. (2014). Efficacy of cognitive processes in young people with high-functioning autism spectrum disorder using a novel visual information-processing task. *Autism and Developmental Disorders, 44*(11), 2809-2819. doi:10.1007/s10803-014-2140-8