The Effects of a Self-Management Intervention on Academic Engagement for High School Students With Autism

Garrett Roberts, M.S., and Colleen Reutel, Ph.D. • The Meadows Center for Preventing Educational Risk, The University of Texas at Austin

Background

**SPONSORSHIP**

The Center for Secondary Education for Students With Autism Spectrum Disorders (CSESA) is funded by the U.S. Department of Education to develop and study a comprehensive high school program for students on the autism spectrum. CSESA includes the Frank Porter Graham Child Development Institute, The University of North Carolina at Chapel Hill, Waisman Center, University of Wisconsin-Madison, Vanderbilt Kennedy Center, Vanderbilt University; The University of Texas at Austin; The University of North Carolina at Charlotte, San Diego State University; and UC Davis MIND Institute.

**WHAT IS PRISM?**

- PRISM stands for personal responsibility, independence, and self-management—the behavioral outcomes we all strive for when working with adolescents on the autism spectrum.
- PRISM is a process that supports school staff members in selecting and interventions to achieve optimal outcomes for students.

**RATIONALITY**

- Self-management is considered an emerging and effective evidence-based practice with strong effect sizes (deBruin, Deppeler, Moore, & Diamond, 2013; Odum et al., 2005).
- Self-management has been successfully used to improve independence skills in inclusive settings (Harower & Dunlap, 2001).
- Little research has been conducted with adolescents with autism spectrum disorders (ASD, Meador & Shea, 2011).
- No study has looked at self-management and academic engaged time in high-school-age students with autism in a public school setting (deBruin et al., 2013; Lee, Simpson, & Shogren, 2007; Southall & Gast, 2011).

**RESEARCH QUESTION**

What is the effect of a multicomponent self-management intervention on academic engaged time for two high school students with ASD?

Participants and Setting

**PARTICIPANT SELECTION**

- Met the district criteria for ASD
- Accessed general education academic content throughout the school day
- Participated in a study skill period
- IQ ≥ 80
- Had functional individualized education program (IEP) goals and were selected by staff as needing behavioral support

**PARTICIPANT CHARACTERISTICS**

- Andrew: 18 years old and in the 12th grade
- Derek: 17 years old and in the 11th grade

**SETTING**

- Rural Central Texas high school approximately 30 miles southeast of Austin
- More than 800 total students
- 65% of students were economically disadvantaged
- Pullout study skills period in the special education setting

Goal Development

**EVALUATION FORM**

- Personal responsibility and independence: Organization, planning, problem-solving, personal presentation
- Community engagement: Conversation, other communication, emotion recognition, cooperation, understanding, school/community culture
- Self-management: Self-regulation of emotion and behavior, flexibility, self-monitoring

**BEHAVIORS EVALUATED**

**ABAB WITHDRAWAL DESIGN WITH 2 DAYS OF TRAINING FOLLOWING THE FIRST BASELINE**

**BASELINE AND WITHDRAWAL**

- Students completed 30-minute independent “business-as-usual” sessions
- Students completed unfinished assignments from other classes
- Reduces were given to students
- Students could ask for help if needed

**Training Day 1**

- A trained peer with autism led training.
- Video modeling was used.
- Opportunities to practice, ask questions, and give feedback were provided

**Training Day 2**

- Adults rephrased the rules
- Students practiced, using the self-management device.

**SELF-MANAGEMENT INTERVENTION**

Same as baseline, except students did the following:
- Completed a “to-do” checklist of work to be done
- Began working on the items on the checklist
- Filled out a self-management form when work was completed
- Checked the accuracy of the work and the self-management sheet with a teacher or peer professional
- Earned time for desired activities (e.g., 5 to 10 minutes of movie, phone time) upon accurate completion of work on the checklist

**DEPENDENT VARIABLES—Academic Engaged Time**

- Included: Working on an assigned task in seat (i.e., looking at paper, text, or writing), looking away from text for up to 1 second, talking to adult about task
- Did not include: Asking an off-topic question or engaging in an off-topic conversation, organizing materials, getting out of seat, flipping through pages not as part of an assigned task

**DATA COLLECTION**

- Percent of time academically engaged
- 10-second whole intervals
- Interobserver agreement:
  - 24% of sessions
  - Exact interval agreement
  - Teacher and student surveys

Student Materials

**TO-DO LIST**

**SELF-MANAGEMENT SHEET**

**SAMPLE**

Results

**PERCENTAGE OF INTERVALS WITH ACADEMIC ENGAGED TIME**

**DISCUSSION**

- Increase in level
- Positive change in dose
- Decrease in variability
- Inmodicity of effect

**IMPLICATIONS**

- Findings suggest that self-management interventions can improve academic engagement for high school students with autism.
- Multicomponent interventions (e.g., self-management, visual schedules, video modeling) may improve academic engagement for high school students with autism.
- Teacher reports suggest that this multicomponent intervention is feasible and beneficial.

**LIMITATIONS**

- Limited number of participants
- Special education setting
- Lack of generalization data

**DIRECTIONS FOR FUTURE RESEARCH**

- Future research is warranted to examine the generalizability of self-management strategies for high school students with autism across settings and content areas.
- Future research can examine the effects of self-management on the academic outcomes of high school students with autism.