

# A Multifaceted Approach to Complex Needs: Targeted Interventions for Gifted Students With Autism

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## BACKGROUND

Recent studies have focused on the identification of students who are gifted and have ASD (Burger-Veltmeijer, Minnaert, & Van den Bosch, 2015) and on their learning experiences (Wu, Lo & Tsai, 2019, and Cain, Kaboski & Gilger, 2019). However, there appears to be a gap in the research regarding effective interventions for these students.

Students who are gifted and who have ASD face unique challenges in school. On the one hand, they have great academic potential; on the other hand, they experience difficulties navigating the social interactions that are an essential part of school life. Teachers often focus more on the remediation of ASD-related deficits than on nurturing the academic potential. This, in turn, can lead to frustration and anxiety for the students.

## RATIONALE

There is a need for targeted interventions that use a holistic approach to address the specific, multi-faceted, and sometimes contradictory needs of students who are gifted and who have ASD.

## AIMS

1. Design and implement a targeted intervention plan to address the specific needs of a 9-year-old male student who is highly gifted and has ASD.
2. Validate the efficacy of the targeted interventions.

## STUDY DESIGN

### **Participant**

- 9-year-old BIPOC (Filipino) male
- Immunocompromised
- Diagnoses: DCD (age 3), ASD (age 3), highly gifted (age 7)
- Mother and father born in the Philippines
- Family is devoutly Roman Catholic
- Father was cut off from family during COVID border restrictions (mother & son live in Canada; father works in USA)

### **Data Collection**

- Family background & educational experiences
- Interviews with parents, teachers, and student to determine understandings, expectations, concerns, and experiences
- Behavioural observations
- School attendance
- Student & parent questionnaires

## PRE-INTERVENTION DATA

### **Educational Experiences**

- Kindergarten:
  - Teacher focused heavily on social interactions and fine motor skills. The assumption was that the student's speech and reading skills were echolalic/hyperlexic.
  - He received support from SLP (articulation), resource teacher (social groups), and OT (fine motor skills).
  - The student was frustrated, and the mother was very upset.
- First Grade:
  - Teacher acknowledged his advanced math and reading skills.
  - Psychoeducational assessment was recommended.
  - Social groups & OT continued.
- Second Grade:
  - Student had a psychoeducational assessment in the summer prior to Gr. 2.
  - He was identified as highly gifted (FSIQ 145).
  - Teacher provided Language Arts enrichment opportunities.
  - He received individual gifted programming in math/science.
  - Student and parent became happier about his school experiences.
- Third Grade:
  - Student struggled with transition from online learning to in-person learning after COVID protocols lifted.
  - He experienced anxiety about COVID and struggled to settle back into classroom routines.
  - One-to-one gifted programming continued.
  - Classroom teachers focused on areas of perceived deficit (graphomotor skills, social skills, organization).

### **Expectations & Concerns**

- Student:
  - Wants to know that he is working at a higher grade level
  - Very concerned about making mistakes (perfectionism)
  - Prefers connection with adults.
  - Wants to relate to peers, but struggles. This contributes to school avoidance, frustration, and anxiety
- Parent:
  - Worried about other students blaming him
  - Worried about lack of extension activities
  - Wants him to stay in a faith-based school
- Teacher:
  - Concerned about lack of organization, independence and self-regulation
  - Concerned about "lying"
  - Concerned about peer relationships
  - Wants him to complete all grade level work before moving on to enrichment

## INTERVENTION DESIGN

- Collaborative process with parent, teacher, and student participation and engagement.
- Expectations and understandings from the interviews helped identify specific needs and guide targeted goals and strategies.
- Student & parent executive functioning questionnaires were used to compare the student's self-perception of his challenges with outside observations from his parent.
- The parent, student, and teacher reviewed the questionnaire answers and together chose the top 3 concerns to focus on.
- Importantly, all three participants were given input in the process and decision-making.

## TARGETED INTERVENTIONS

- **Holistic approach to interventions:**
  - Using enrichment projects as opportunities to work on social skills, emotional regulation, and executive functioning
  - Practicing turn-taking and conversation skills while discussing enrichment interests
  - Lab reports for enriched science projects help improve written output
  - Using the student's interest in advanced math concepts to encourage a growth mindset and practice planning and organization
- **Clear, ongoing communication with student, teacher, and parent:**
  - Explain the purpose/goal of interventions to everyone, including the student
  - Discussing passions and post-secondary goals with the student to explain the importance of current interventions
  - Competency-based/positive communications with parents that frame discussions in the context of his giftedness
- **Giving the student choice and agency in the learning process & selecting topics:**
  - Create an agreement to stick with chosen topics before moving on
  - Holding the student accountable to agreed plans and timelines
- **Organizational checklists and student check-ins at home and in the classroom.**

## REFERENCES

- Burger-Veltmeijer, A. E., Minnaert, A. E., & Van den Bosch, E. J. (2015). Intellectually gifted students with possible characteristics of ASD: a multiple case study of psycho-educational assessment practices. *European Journal of Special Needs Education, 31*(1), 76–95. <https://doi.org/10.1080/08856257.2015.1087147>
- Cain, M. K., Kaboski, J. R., & Gilger, J. W. (2019). Profiles and academic trajectories of cognitively gifted children with autism spectrum disorder. *Autism, 23*(7), 1663–1674. <https://doi.org/10.1177/1362361318804019>
- Wu, I.-C., Lo, C. O., & Tsai, K.-F. (2019). Learning Experiences of Highly Able Learners With ASD: Using a Success Case Method. *Journal for the Education of the Gifted, 42*(3), 216–242. <https://doi.org/10.1177/0162353219855681>

## METHODS OF EVALUATION

- Behavioural observations
- Record of attendance
- Progress monitoring
- Pre-post interviews
- Weekly debriefing sessions
- Self-evaluations
- Goal adjustments as needed

## INTERVENTION OUTCOMES

- Increased enthusiasm to attend school; record of attendance improved
- Student became engaged and collaborated in his learning process
- Large improvement in student's one-to-one conversational skills, patience, and turn-taking
- Increased self-monitoring of executive functioning goals/needs
- More willing to ask for help and admit when he is wrong
- Parents more receptive and collaborative
- Student showed greater self-awareness of his emotional-regulation needs and a desire to develop coping strategies
- In class observation showed increased participation and cooperation with peers

## KEY FINDINGS

- The preliminary results suggest that there is a need to consider all factors impacting a student's functioning at the pre-intervention stage.
- Collaborative, interactive planning was a key component in effectively designing and implementing the intervention plan.
- Ongoing evaluation and fine-tuning of goals ensured continuing efficacy of interventions.
- Promoting student and parent agency throughout the process fostered a more positive family-school dynamic and improved willingness to participate.