

# USING SPECIAL INTERESTS

## CHARACTERISTICS OVERVIEW CHART

Verbal Skills	Grade Levels	Cognitive Level	Areas Addressed
<input checked="" type="checkbox"/> Nonverbal	<input checked="" type="checkbox"/> PK	<input checked="" type="checkbox"/> Classic	<input type="checkbox"/> (Pre)Academic/Cognitive/Academic
<input checked="" type="checkbox"/> Mixed	<input checked="" type="checkbox"/> Elementary	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Adaptive Behavior/Daily Living
<input checked="" type="checkbox"/> Verbal	<input checked="" type="checkbox"/> Middle/High	Functioning	<input checked="" type="checkbox"/> Behavior
			<input checked="" type="checkbox"/> Communication/Speech
			<input checked="" type="checkbox"/> Social/Emotional

## BRIEF INTRODUCTION

Many individuals with autism (AU) have strong special interests, and these have been identified as one of the most powerful ways to motivate an individual. As a result, teachers are well advised to incorporate them in their work students with autism.

## DESCRIPTION

Special interests have been broadly used to teach students with autism. Even though these students have deficits in various areas (e.g., social, communication, fine- and gross-motor), research suggests that they also demonstrate great and sometimes even surprising strengths in certain areas. Indeed, restricted repetitive and stereotyped patterns of behavior and restricted interests are included as characteristics of autism.

Winter-Messiers and her colleagues (2007) suggested a strength-based model focused on the special interest areas of individuals with Asperger Syndrome (AS). As a result of this model, students showed strength in areas generally described as deficit in the AS profile: social (e.g., highly motivated attitude to share own interests and fascinations with other people), communication (e.g., talking fluently about own interests), emotion (e.g., using own interests and enthusiasm for animals to cope with difficulties), sensory-motor (e.g., enthusiasm for computer games that require fine-motor skills to use a mouse), and executive function (e.g., using special interests in Disney movies to teach organizational skills).

Examples of using special interests include:

- Using a student’s interest as a vehicle for teaching counting (e.g., counting pictures of cars, trucks, or other motor vehicles)
- Using a student’s enthusiasm for water to teach self-help skills (e.g., taking a shower, cleaning a bathtub, or washing hands)
- Using a student’s interest in cartoon characters to teach social skills (e.g., making a Power Card [Gagnon, 2001] with Bugs Bunny as a model for a desired behavior)

## STEPS

The following steps can be helpful in using special interests to teach students with AU:

1. *Identify the student’s special interests.* Instructors need to develop a list of the student’s special interests. Observation and information from parents, paraprofessionals, or other related people can be helpful in identifying special interests.
2. *Apply the identified interests of the student into various forms across teaching areas.* Special interests can be applied to teach self-help skills and social, communication, or academic behavior. For example, the child who likes lady bugs can improve her reading by reading books on this topic.
3. *Update the list of special interests and use several of the student’s interests.* Special interests can change over time. Therefore, instructors need to monitor the student’s performance along with using special interests. Also, overreliance on using one special interest can decrease its effectiveness. Varying the use of special interests may keep less preferred interests still functioning as motivators.

## BRIEF EXAMPLE

1. Minho is a third-grade student with classic AU who loves to play with water and becomes extremely excited whenever he sees bathrooms or water. When Minho is out in the community, he always tries to find and then goes into the bathroom, including the women’s bathroom. In addition, he tries to flush every toilet and plays with water until someone stops him.

2. Ms. Taylor, his special education teacher, decided to use Minhó’s enthusiasm for water to teach various skills, including self-help, reading, and math. For example, Minhó learned to recognize words and icons using stories about water, weather, oceans, and fire engines (water was used to put out fires). Ms. Taylor also wrote a Social Story™ about hygiene for Minhó emphasizing all the hygiene activities that involved water.
3. Jonathan, a seventh-grade student with AU, had a special interest in sports statistics. His P.E. teacher made him the football team’s statistician. This enhanced his social interactions because football players wanted to know their personal statistics – information that Jonathan was eager to share. Jonathan’s literature teacher used his special interest to motivate him to read. She carefully selected stories about sports stars.

## TIPS FOR MODIFICATION

Special interests can be applied to most teaching areas using a variety of strategies. For example, the Power Card strategy uses special interests to enhance learning desired behaviors or skills.

## SUMMARY

Teachers and parents can use the child’s special interests as powerful motivators to teach various skills and behavior. With a positive perspective on the student’s strengths, instructors can identify and apply special interests to teach across areas, including self-help skills, social, communication, or academic behavior. It is important to develop various forms of applications and to update the child’s special interests to ensure the approach remains effective.

## RESEARCH TABLE

Number of Studies	Ages (year)	Sample Size	Area(s) Addressed	Outcome
10	2-19	44	Communication, joint attention, social interaction, math and reading tasks	+

## STUDIES CITED IN RESEARCH TABLE

1. Dunst, C.J., Trivette, C.M., Masiello, T. (2010). Influence of the interests of children with autism on everyday learning opportunities. *Psychological reports, 107(1)*, 281-288.  
In a descriptive study, researchers explored how often parents of 17 preschool children with ASD provided educational opportunities based on their child's interests. Parents reported that they provided more educational opportunities during activities that were of higher interest to their children, suggesting that utilizing a child's preferences when structuring learning activities can have an impact on the parent's behavior in offering educational opportunities as well as the child's level of interest. Results should be interpreted with great caution, however, as no direct observation of either parent or child behavior was gathered by the experimenters.
2. Koegel, L.K., Singh, A.K., Koegel, R.L. (2010). Improving motivation for academics in children with autism. *Journal of Autism and other Developmental Disorders, 40*, 1057-1066.  
The purpose of this study was to determine the effect of integrating choice and preferred activities into math and reading activities for 4 pre- and school aged children with ASD. During baseline the children were asked to complete math and reading tasks with no choice and no integration of preferred items or activities. In a multiple-baseline across participants design, intervention involving offering choices and integrating items and topics preferred by the child into the activities was introduced. Following the introduction of intervention all four children showed reduced rates of disruptive behavior, increased engagement, increased accuracy, and shorter latencies to begin academic tasks. The positive results generalized to novel teachers during follow-up.
3. Boyd, B. A., Conroy, M. A., Mancil, G. R., Nakao, T., & Alter, P. J. (2007). Effects of circumscribed interests on the social behaviors of children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 27*, 1550-1561.  
This study compared the effects of circumscribed interests (CI) to less preferred (LP) tangible stimuli on the social behaviors of three 5-year-old children with autism. The children engaged in social interactions at a higher rate when they involved their circumscribed interests.
4. Vacca, J. J. (2007). Incorporating interests and structure to improve participation of a child with autism in a standardized assessment: A case study analysis. *Focus on Autism and Other Developmental Disabilities, 22*, 51-59.  
This study of a 3-year-old girl with autism found that interactions with the author of the study, the parent, and the study participant increased when familiar and motivating activities were available.
5. Vismara, L. A., & Lyons, G. L. (2007). Using perseverative interests to elicit joint attention behaviors in young children with autism. *Journal of Positive Behavior Interventions, 9*, 214-228.

This study assessed the social sharing behavior of three 2- to 3-year-old students with autism when they had access to their perseverative interests. When provided access to their interests, the participants showed increased joint attention and higher quality social interactions. Joint attention generalized to less preferred objects.

6. Lee, R., & Sturmey, P. (2006). The effects of lag schedules and preferred materials on variable responding of students with autism. *Journal of Autism Developmental Disorders*, 36, 412-428.  
Three teens with autism ranging in age from 17 to 19 participated in a study to increase their verbal responses when preferred and nonpreferred stimuli were available. The responses of two of the three boys increased when preferred stimuli were present.
7. Baker, M. J. (2000). Incorporating the thematic ritualistic behaviors of children with autism into games. *Journal of Positive Behavior Interventions*, 2, 66-84.  
Three students, ages 5 through 7, participated in the study, which was designed to measure social interactions when special interests were incorporated into play scenarios. Results showed that social interactions increased when the interests were integrated into the setting.
8. Baker, M. J., Koegel, R. L., & Koegel, L. K. (1998). Increasing the social behavior of young children with autism using their obsessive behaviors. *The Journal of the Association for Persons with Severe Handicaps*, 23, 300-308.  
This study found that for three 5- to 8-year-olds with autism access to a perseverative interest could be used to create intrinsically reinforcing and socially appropriate play activities with typically developing peers and siblings.
9. Charlop-Christy, M. H., & Haymes, L. K. (1998). Using objects of obsession as token reinforcers for children with autism. *Journal of Autism and Developmental Disorders*, 28, 189-198.  
Three children, ages 7 to 9, participated in a study to measure behavior when typical tokens or tokens representing a special interest were used as reinforcers. Results indicated that percentage of correct on-task performance was higher when objects of obsession were used as tokens than when typical tokens were used.
10. Charlop-Christy, M. H., & Haymes, L. K. (1996). Using obsessions as reinforcers with and without mild reductive procedures to decrease inappropriate behaviors of children with autism. *Journal of Autism and Developmental Disorders*, 26(5), 527-546.  
Four children ranging in age from 5 to 7 participated in a study where obsessions were used as reinforcers. When compared to a verbal redirection and food, obsessions were found to be more effective.

## REFERENCES

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- Winter-Messiers, M. A., Herr, C. M., Wood, C. E., Brooks, A. P., Gates, M. A., Houston, T. L., & Tingstad, K. I. (2007). How far can Brian ride the daylight 4449 express? A strength-

based model of Asperger Syndrome based on special interest areas. *Focus on Autism and Other Developmental Disabilities*, 22, 67-79.

## RESOURCES AND MATERIALS

- Interactive Autism Network:  
[http://www.iancommunity.org/cs/challenging\\_behavior/challenging\\_behavior\\_restricted\\_interests](http://www.iancommunity.org/cs/challenging_behavior/challenging_behavior_restricted_interests)  
Part of the Interactive Autism Network, this page gives the user an overview and provides links to multiple resources.
- Winter-Messiers, M. A., Herr, C. M., Wood, C. E., Brooks, A. P., Gates, M. A., Houston, T. L., & Tingstad, K. I. (2007). How far can Brian ride the daylight 4449 express? A strength-based model of Asperger Syndrome based on special interest areas. *Focus on Autism and Other Developmental Disabilities*, 22, 67-79.  
This article describes a model of incorporating student special interests in daily lessons.

## GENERAL RESOURCES

- Autism Internet Modules (AIM) [www.autisminternetmodules.org](http://www.autisminternetmodules.org). The Autism Internet Modules were developed with one aim in mind: to make comprehensive, up-to-date, and usable information on autism accessible and applicable to educators, other professionals, and families who support individuals with autism spectrum disorders (ASD). Written by experts from across the U.S., all online modules are free, and are designed to promote understanding of, respect for, and equality of persons with ASD.
- The Autism Web Course: [http://cdd.unm.edu/swan/autism\\_course/about/index.htm](http://cdd.unm.edu/swan/autism_course/about/index.htm). This web course was developed out of materials from the Interactive Collaborative Autism Network (ICAN). The Autism Programs at the University of New Mexico has updated and added information to this web course.
  - Characteristics
  - Assessment
  - Academic Interventions
  - Behavioral Interventions
  - Communication Interventions
  - Environmental Interventions
  - Social Interventions
  - Family Support Suggestions
- Indiana Resource Center for Autism (IRCA) <http://www.iidc.indiana.edu/irca/fmain1.html>. The Indiana Resource Center for Autism staff's efforts are focused on providing communities, organizations, agencies, and families with the knowledge and skills to support children and adults in typical early intervention, school, community, work, and home settings.

- IRCA Articles: <http://www.iidc.indiana.edu/index.php?pageId=273>
- Texas Statewide Leadership for Autism [www.txautism.net](http://www.txautism.net). The Texas Statewide Leadership for Autism in conjunction with the network of Texas Education Service center with a grant from the Texas Education Agency has developed a series of free online courses in autism. Please check the training page, [www.txautism.net/training.html](http://www.txautism.net/training.html), for update lists of courses, course numbers and registration information. Current courses include the following:
  - Asperger Syndrome 101
  - Augmentative and Alternative Communication and the Autism Spectrum
  - Autism for the General Education Teacher
  - Autism 101: Top Ten Pieces to the Puzzle
  - Classroom Organization: The Power of Structure for Individuals with ASD
  - Communication: The Power of Communication for Individuals with ASD
  - Futures Planning for Students with Autism Spectrum Disorder
  - Navigating the Social Maze: Supports and Interventions for Individuals with ASD
  - Solving the Behavior Puzzle: Making Connections for Individuals with ASD