

Part I: Frequent Questions About Autism and a Few Answers

1. What is autism?

Autism spectrum disorder is a condition related to brain development that impacts how a person perceives and socializes. Autism typically causes issues in social interaction and communication. The disorder also includes limited and repetitive behavior patterns, but patterns of behavior are inconsistent among individuals.

2. What is the relationship between Asperger's Syndrome and autism?

Autism spectrum disorder includes conditions previously considered in separate categories such as autism, Asperger's syndrome, childhood disintegrative disorder, and an unspecified form of pervasive developmental disorder. "Asperger's syndrome" is generally thought to be at the mild end of autism spectrum disorder. However, some educators, practitioners, and parents still use the term Asperger to differentiate severity levels.

3. Would you please explain what "autism spectrum" means and how spectrums are different?

The term "spectrum" in autism spectrum disorder refers to the wide range of symptoms and severity. Each child with autism spectrum disorder is likely to have a unique pattern of behavior and level of severity — from low functioning to high functioning. However, since each child has a unique mixture of symptoms, severity can sometimes be challenging to determine.

Severity generally refers to the level of impairments and how they impact the ability to function. However, the severity level may change as children mature and become more engaged with others. For example, social engagement helps individuals with autism spectrum disorders show fewer disturbances in behavior. In many cases, consistent engagement with others may help individuals with severe problems shift and eventually lead to normal or near-normal lives. However, difficulties in language or social skills may increase, especially during adolescence and teen years.

Part II: Autism – Causes and Onset

Autism spectrum disorder begins in early childhood and eventually causes problems functioning in society socially, in school, or later at work. Often children show symptoms of autism within the first year. However, a small

number of children appear to develop normally in the first year and then go through a period of regression between 18 and 24 months of age when they develop autism symptoms. Signs usually are seen by age two years.

There is no cure for autism spectrum disorder, but intensive, early treatment can make a big difference in communication and social skills positively impacting the lives of many children.

Part III: Impact of Autism in School Environments

- Cognitive Diversity has a high incidence. Some children with autism spectrum disorder have difficulty learning, and some have signs of lower-than-normal intelligence. However, other children with the condition have normal to high intelligence and learn quickly.
- Children diagnosed with autism spectrum disorder function in a broad spectrum of varying levels. For example, students with mild autism may be able to communicate relatively well but struggle in social situations, while students with severe autism often struggle to verbalize their thoughts. This broad-spectrum means that how autism affects learning will vary significantly according to the individual and the severity of their disorder.
- Communication and socialization are common characteristics. Children with normal to high intelligence often have trouble communicating and applying what they know in everyday life and adjusting to social situations.
- Many factors impact an autistic child's ability to access the educational curriculum successfully. Autism impacts learning in the following ways:
 - Children with autism spectrum disorder develop at different rates as well as different sequences than neurotypical children.
 - Language development shows delays in autistic children.
 - Babies and young children with autism do not always pay attention to those around them as neurotypical children do.
 - Children with autism do not instinctively engage in shared or joint attention, creating challenging language development and communication skills.

- Children with ASD have a difficult time with perspective. They struggle to understand how other people's beliefs can vary from their own.
- Autism can make it hard to understand and predict other people's behavior and how the child's behavior impacts others.
- Children with autism can struggle with essential skills for the classroom, such as focus, attention, transition management, organization, memory, time management, emotional control, and frustration.
- Autism can make it difficult for children to see the "big picture" in real-life situations, as well as in stories or books. For example, children may not understand the overall message in a story due to extreme focus on the details in pictures.

Communication and Social Interaction

There are some common behaviors of people with autism spectrum disorder, but these behaviors may differ significantly. For example, a child or adult with autism spectrum disorder may have problems with social interaction and communication skills, including any of these signs:

- Fails to respond to their name or appears not to hear you at times
- Resists cuddling and holding and seems to prefer playing alone, retreating into their world
- Has poor eye contact and lacks facial expression
- Doesn't speak or has delayed speech, or loses previous ability to say words or sentences
- Can't start a conversation or keep one going, or only starts one to make requests or label items
- Speaks with an abnormal tone or rhythm and may use a singsong voice or robot-like speech

- Repeats words or phrases verbatim but doesn't understand how to use them
- They don't appear to understand simple questions or directions
- They fail to express emotions or feelings and appear unaware of the feelings of others.
- Doesn't point at or bring objects to share an interest
- Inappropriately approaches a social interaction by being passive, aggressive, or disruptive
- Has difficulty recognizing nonverbal cues, such as interpreting other people's facial expressions, body postures, or tone of voice
- Performs repetitive movements, such as rocking, spinning, or hand flapping
- Performs activities that could cause self-harm, such as biting or head-banging
- Develops specific routines or rituals and becomes disturbed at the slightest change
- Has problems with coordination or has odd movement patterns, such as clumsiness or walking on toes, and has odd, stiff, or exaggerated body language
- Children with autism are fascinated by the details of particular objects, such as the spinning wheels of a toy car. However, they may not understand the overall purpose or function of the object
- Is unusually sensitive to light, sound, or touch, yet may be indifferent to pain or temperature
- Doesn't engage in imitative or make-believe play
- Fixates on an object or activity with abnormal intensity or focus

- Has specific food preferences, such as eating only a few foods or refusing any foods with a particular texture.

Part IV: Best Strategies from Educators and Practitioners

Some Top Strategies for Teaching Autistic Students:

- Avoid sensory overload. Students with autism can be distracted by unexpected things in their environment, such as bright lights, smells, and sounds.
- Have better results when shown visuals
- Teachers should be predictable.
- Adults should use concrete language.
- Teach social skills directly.
- Treat students as individuals.

Accommodations

Deschenes, Ebeling, and Sprague (1994) classified instructional accommodations under nine different domains. The intent of categorizing domains was to offer a broad scope of accommodations that teachers could utilize to match students' individual needs.

Teachers Accommodations typically provide ac in nine domains:

1. Size
2. Time
3. Level of Support
4. Input
5. Difficulty
6. Output
7. Participation
8. Alternate
9. Substitute Curriculum:

Size. Adapt the number of items that the student will learn or complete.

Options include:

- reducing the vocabulary terms or tasks
- splitting the assignment into parts
- completing specific components of the assignment

Time. Adjust the time allotted for learning, task completion, or testing. Develop an individualized timeline for the student.

- Some parts of the task may be learned faster or slower than what is typically expected.
- Time is a significant consideration since many students on the autism spectrum experience challenges with executive function (organizing, sequencing, scheduling, maintaining interests of a long-term assignment).

Strategy: Graphically working out intermediary deadlines is enough to help the student.

Level of Support. This type of accommodation involves gauging the amount of additional support a child needs to accomplish a task.

- Use diverse levels of supporting including peer support, because peer support has academic and social benefits.
 - a. When students are helping others, they gain a stronger grasp of concepts as they prepare to share the concepts with others.
 - b. Peer interactions provide a greater opportunity to form friendships and the common interest or attributes they share.

Input. Adapt how processes or instructions are provided for the learner.

Most individuals on the autism spectrum are visually oriented, but others may be kinesthetically oriented or favor other senses for information input.

- Using different visual aids, concrete examples, hands-on activities, or group work are proven best practices for children on the autism spectrum.
- Learning styles are typically to be extreme and combined with greater difficulty than non-spectrum students for using other input modes.

Difficulty. Match the skill level of the child to the challenge of the work.

Output. Provide options for students with autism responses to accommodate their specific needs.

Participation. This area concerns how the student is meaningfully involved in a task.

Alternate. It may become necessary to modify the goals or outcome expectations while still using the same materials. In this case, the student completes the assignment or task, but there is a reduction in the required responses.

Substitute Curriculum. In this case, the child is provided with different instructions and materials to meet their needs. This is the most difficult accommodation because students are often excluded from completing assignments, thus changing the access to general education tasks of peers.

Autism in the Classroom: Strategies for success

The common goal in keeping different accommodations domains in mind is for meaningful involvement of the person with a difference in their way of learning in school. These accommodations can also help at their residences, in the community, and later in employment. Inclusion is successful when both children with special needs and regular education benefit from the interaction.

V. Creating the Optimal Learning Environment

The optimal learning environment for a child with autism is different than that of general education students.

The typical classroom is bright and structured in a way to stimulate and excite the students. But bright, and often cluttered visuals don't work well for students with autism. Students with special needs require environments that are designed with their specific needs in mind.

There are several considerations to use when designing learning environments for students with autism spectrum disorders.

- Colors and patterns should be subtle and used minimally, only for directional purposes.
- Hallways should be wider to allow for necessary movement.
- Classrooms should be staggered to reduce the potential for conflicts.
- Programs should reinforce students' strengths and abilities.
- Classrooms should be equipped to teach basic life skills.
- Settings should reinforce the repetition of daily tasks.

Practical factors can reduce stimuli in the learning environment.

- Have extensive closed storage so materials and equipment that are not being used will not be a distraction.
- Orient the classroom away from potential distractions, such as outside windows.
- Address sensory issues by controlling the lighting, ventilation, temperature, and sound in the classroom.
- Provide each student with enough floor area, much more than neurotypical students need.
- Niches or quiet zones should be clearly identified for students who need to take a break.
- Provide multiple areas for socializing in various group sizes. These areas should be based on the students' abilities and encourage communication and social skills development.

One key component for creating the optimal learning environment for children on the autism spectrum is flexibility. It is essential to adapt your classroom to meet the specific needs of your students, and these needs may change throughout the school year. By considering what kind of environment your autistic students are learning in, you optimize their development and the use of your autistic teaching strategies.

Expert-Recommended Tips for Teaching Autism Spectrum Disorder Students (ASD)

- Be calm and positive.
- Model appropriate behavior.
- Be aware of the typical characteristics of autism.
- Promote a positive and welcoming environment.
- Create opportunities for all students to practice their social skills.
- Teach understanding and acceptance.
- Pair students on the spectrum with peers who are good role models, whether they are autistic peers or neurotypical peers. Neurotypical students also benefit from being paired with autistic students.
- Create time for pair and small group work.
- Pay attention to the level of socialization for autistic students. They are at risk of becoming isolated. Create opportunities for them to interact with other students.
- If a student with ASD behaves or reacts inappropriately to a situation, consider their social and communication challenges before placing blame or judgment on the student.
- If a student with ASD behaves or reacts inappropriately to a situation, consider their social and communication challenges before placing blame or judgment on the student.
- Ensure that appropriate classroom accommodation are in place. Remember that autistic students have different needs than their neurotypical peers.
- Warn an autistic student ahead of time of any changes to the daily routine, such as staff or scheduling changes.
- Stay tuned in to your student's sensory issues and make environmental adjustments as needed.
- Use descriptive praise to reinforce the development of positive behaviors.

****Making a Big Difference**

Summary

1. If you are teaching students on the autism spectrum in any capacity, you can see more positive results with a bit of planning.
2. Be clear, empathetic, and consistent. These are valuable qualities to have in any teaching environment, but they are particularly important when working with students on the autism spectrum.
3. Adapt your classroom to provide the optimal learning environment for students with special needs. Small changes can make a big difference.

4. Finally, utilize autistic teaching strategies to foster a positive and productive learning experience for everyone involved.
5. While teaching autistic students isn't often as straightforward as teaching neurotypical students, the growth you'll see will be well worth the effort.

References

- Creating Successful Learning Environments for Children on the Spectrum. International Board of Credentialing and Continuing Education Standards.
- Data and Statistics on Autism Spectrum Disorder . (March 2020). Centers for Disease Control and Prevention.
- How Autism Spectrum Disorder Affects Learning and Development. (May 2020). Raising Children Network Australia.
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- Levels of Autism: Understanding the Different Types of ASD. (November 2019). Psych Central Professional.
- Diagnostic Criteria. (August 2019). Centers for Disease Control and Prevention.
- People With Milder Forms of Autism Struggle as Adults. (September 2011). Spectrum.
- Teachers: Strategies for Success. (September 2018). Autism Speaks
- How I Set Up My Autism Classroom Schedule. Teach Love Autism.
- A Look Inside My Autism Classroom. Simply Special Ed.
- Twelve Steps to Setting Up an Autism Classroom. (October 2007). Principal Kendrick.
- Teaching Tips for Children and Adults With Autism. (December 2002). Indiana Resource for Autism.
- Tips for Working With Individuals on the Autism Spectrum. Autism Society.
- 5 Practical Tips for Teaching Students With Autism. (August 2017). Organization for Autism Research.

- Deschenes, C., Ebeling, D., and Sprague, J. (1994). *Adapting Curriculum and Instruction in Inclusive Classrooms: A Teacher's Desk Reference*. Bloomington, Indiana:
- The Center for School and Community Integration, Institute for the Study of Developmental Disabilities. Shore, S., & Rastelli, L. (2006). *Understanding autism for dummies*. NY: Wiley & Sons.