



# Fast Facts

“If you’ve met one person with autism, you’ve met one person with autism.”

- Dr. Stephan Shore

Spring 2020 — Fall 2020

## College Students with Autism

As the population of college students diagnosed with Autism continues to grow, it is important that our knowledge, acceptance, and services continue to expand as well. It is difficult to obtain a true number of students with Autism enrolled in higher education because not every student discloses their disability and receives accommodations. In 2015, fifty thousand students with Autism left high school, 36% of those students enrolled in postsecondary education, and 40% of enrolled students disclosed their disability.<sup>i</sup> The information presented is to help provide insight and strategies for educators and staff to support students with Autism and their academic experience.

## What is Autism Spectrum?

Autism Spectrum is a neurodevelopmental disorder. Although Autism can be diagnosed at any age, typically symptoms become apparent within the first two years of a child’s life. Prior to the DSM V, the diagnostic and statistical manual of mental disorders, Autism was divided into five separate categories: Asperger Syndrome, Autistic Disorder, Childhood Disintegrative Disorder, Rett Syndrome, and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS). In 2013, the DSM V replaced the multi-categorical system under the umbrella of Autism Spectrum Disorder (ASD).

### Autism is diagnosed by significant challenges in:

- Communication and Social Interaction
- Restricted and repetitive patterns of behaviors
  - Sensory processing (Hyper or Hypo Sensitivity)

Autism affects every individual differently, with any combination of significant challenges, and symptoms ranging from mild to severe, hence the term spectrum.<sup>ii</sup> For example, two students with autism “can act completely different from one another and have varying capabilities.”<sup>iii</sup> The chart displayed below demonstrates the level of severity for social communication and restricted, repetitive behaviors.

**Table 1: Severity Levels for Autism Spectrum**

Severity Level	Social Communication	Restricted/Repetitive Behaviors
<p><b>Level 3:</b>  <b>“Requiring very substantial support”</b></p>	<ul style="list-style-type: none"> <li>• Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning, very limited initiation of social interactions, and minimal response to social overtures from others.</li> <li>• For example, a person with few words of intelligible speech who rarely initiates interaction and, when he or she does, makes unusual approaches to meet needs only and responds to only very direct social approaches</li> </ul>	<ul style="list-style-type: none"> <li>• Inflexibility of behavior, extreme difficulty coping with change, or other restricted/repetitive behaviors markedly interfere with functioning in all spheres.</li> <li>• Great distress/difficulty changing focus or action</li> </ul>
<p><b>Level 2:</b>  <b>“Requiring substantial support”</b></p>	<ul style="list-style-type: none"> <li>• Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions; and reduced or abnormal responses to social overtures from others.</li> <li>• For example, a person who speaks simple sentences, whose interaction is limited to narrow special interests, and how has markedly odd nonverbal communication.</li> </ul>	<ul style="list-style-type: none"> <li>• Inflexibility of behavior, difficulty coping with change, or other restricted/repetitive behaviors appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts.</li> <li>• Distress and/or difficulty changing focus or action.</li> </ul>
<p><b>Level 1:</b>  <b>“Requiring support”</b></p>	<ul style="list-style-type: none"> <li>• Without supports in place, deficits in social communication cause noticeable impairments. Difficulty initiating social interactions, and clear examples of atypical or unsuccessful response to social overtures of others. May appear to have decreased interest in social interactions.</li> <li>• For example, a person who is able to speak in full sentences and engages in communication but whose to-and-fro conversation with others fails, and whose attempts to make friends are odd and typically unsuccessful.</li> </ul>	<ul style="list-style-type: none"> <li>• Inflexibility of behavior causes significant interference with functioning in one or more contexts.</li> <li>• Difficulty switching between activities. Problems of organization and planning hamper independence.</li> </ul>

Source: Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition

## Growing population

Based on statistics released in 2018 by the Center for Disease and Control, 1 in 59 children in the United States were diagnosed with Autism compared to 1 in 88 in 2012, and 1 in 150 in 2000. There are multiple reasons for the significant rise of children diagnosed with Autism:

- Increased awareness and acceptance
- Increased research and diagnostic tools from the medical community
- Creation of Autism umbrella term encompassing the five former categories

Autism is prevalent across all races, ethnicities, socioeconomic status, and geographic regions. Autism is 4 times more common in boys than in girls and parents who have one child with Autism have a higher probability of having a second child diagnosed with Autism. In addition, children born to older parents also have a higher risk for Autism.<sup>iv</sup>

## What causes Autism?

The medical community is not entirely sure what factor(s) cause Autism. However, research suggests that a combination of genetic, non-genetic, and environmental influences may increase the risk for a child to develop Autism.

- Genetic Change
- Advanced Parent Age
- Pregnancy and birth complications
- Pregnancies spaced less than one year apart <sup>v</sup>

## Characteristics and Misconceptions

Students with Autism have successfully attended higher education institutions for decades. Unfortunately, a small population struggle with navigating the collegial arena and assimilating to the social norms and traditions demonstrated by their peers. Students with Autism process and respond to information in unique ways. In addition, Professors and University personnel sometimes are challenged with understanding the struggles and unique learning methods of students with Autism. The following chart displays common characteristics of students with Autism that create challenges and misconceptions.

**Table 2: Characteristics and Misconceptions**

	<b>Challenge</b>	<b>Possible Reason</b>	<b>Misconception</b>
<b>Communication</b>	Lack of eye contact	Making eye contact can be anxiety producing	Lack of engagement or interest
	Reciprocity	Difficulty understanding unwritten rules of conversation	Rude or ill mannered
	Comprehension	Difficulty understanding abstract language such as sarcasm and figurative language	Not interested in conversation
<b>Social Interaction</b>	Creating and maintaining relationships	Difficulty initiating conversation and understanding unwritten social norms	Lack of engagement or interest
	Deciphering verbal and nonverbal cues	Difficulty reading others body language, voice tone, and facial expressions	Rude or ill mannered
	Awareness of Boundaries	Difficulty understanding personal space with others	Harassment, awkward, disrespectful
<b>Restricted/Repetitive Behaviors</b>	Domination of restricted interest	Difficulty engaging in others interests or participation in alternative activities	May cause others to become disinterested or weary of collaborating
	Engaging in repetitive behaviors (e.g. humming, flapping of hands, pacing, rocking)	Difficulty managing stress induced behaviors or regulating sensory input	May be perceived as odd behaviors and cause others to feel uncomfortable
<b>Sensory Processing</b>	Hypersensitivity	Highly sensitive to scents, tastes, sights, sounds, and/or touch	Both sensory deficits may cause students with Autism to feel discomfort and display unconventional reactions and behaviors (i.e. excessively touching objects, jumping up and down) causing others to view as odd or unapproachable
	Hyposensitivity	Lack of sensory input causing individuals to seek out additional	

Source: Going to College with Autism by Emily Rutherford

## Strengths of Autism

All students, regardless of their disability, have a particular set of skills, strengths, and talents. It is important to be aware of these skills when working with students with Autism in order to increase their drive for learning and ability to succeed. The following is a list of strengths associated with Autism:

- Exceptional attention to detail
- Excellent memory for facts and figures
- Specialist in topics of interest
- Highly motivated and passionate in activities of interest
- Commonly honest and non-judgmental
- Exceptional analytical and practical skills
- Ability to carry out tasks with a high degree of accuracy
- Ability to accurately follow clear and concise instructions and rules
- Ability to see the world from a different perspective thus bringing a different insight
- Visual learning

**Source:** Strengths and Skills in Students with Autism.

[www.best-practice.middletownautism.com/what-is-autism/strengths-and-skills-in-students-with-autism](http://www.best-practice.middletownautism.com/what-is-autism/strengths-and-skills-in-students-with-autism)

## Knowledge is Power

It is important for students with Autism to have an understanding of their disability and how it affects their lives. By understanding their strengths and limitations, students with Autism can implement strategies to manage and alleviate struggles. As educators we can help facilitate student's avenue of understanding by asking particular questions:

- How do you learn best? (visual, auditory, kinesthetic)
- What is the best learning environment for you? (classroom, quiet space, library, bedroom, etc.)
- Do you prefer individual or group work?

**As educators we can also support the academic challenges of students with Autism by reflecting on our own practices:**

- Am I explaining abstract concepts such as time?
- Is my language clear, abstract or ambiguous?
- Have I provided visual information?
- Am I providing structure and choice to reduce student anxiety?<sup>vi</sup>

**Table 3: Classroom Practices & Strategies**

	<b>Diagnostic Characteristics of Autism</b>	<b>Research-Based Classroom Practices &amp; Strategies</b>	<b>An Insider View: SJSU Students with Autism Speak Out</b>
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Difficulty expressing needs</li> </ul>	<ul style="list-style-type: none"> <li>• Clear, concise information (avoid superfluous information)</li> <li>• Clearly define course requirements, the dates of exams, and date assignments are due</li> <li>• Being available to meet with students during office hours as well as before and after class</li> </ul>	<p><b>Openness to Questions:</b> “Just by being more open to questions and being available to answer students’ need. In my major specifically, the faculty is wrapped up in their research, it almost seems that they do not want to communicate with their students as they have little time”</p> <p><b>Importance of direct, one on one student-professor communication:</b> “I found it easiest to communicate to the professor after class or in office hours, when I can get his/her undivided attention.”</p>
	<ul style="list-style-type: none"> <li>• Difficulty using language in a social context; difficulty with semantics, pragmatics, and prosody (volume, intonation, inflection, and rhythm)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide direct feedback to the student when you observe areas of academic difficulty.</li> <li>• Avoid or explain euphemisms and figures of speech (unless you explain the meaning)</li> </ul>	<p><b>Asking for help &amp; clarification:</b> “Often when one is not sure of something and has a question, it is hard to go and ask a peer or the professor for clarification.”</p> <p><b>Difficulty with social jargon:</b> “I found it hard to understand new ways of jargon, humor, and sarcasm.”</p>
	<ul style="list-style-type: none"> <li>• Repeating words or phrases in place of normal, responsive language</li> </ul>	<ul style="list-style-type: none"> <li>• Consolidate information being sure not to get bogged down in details.</li> <li>• Make course expectations direct &amp; explicit. Do not expect the student to “read between the lines” to understand your intentions or to automatically generalize instructions.</li> </ul>	

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	<b>Diagnostic Characteristics of Autism</b>	<b>Research-Based Classroom Practices &amp; Strategies</b>	<b>An Insider View: SJSU Students with Autism Speak Out</b>
<b>Social Interaction</b>	<ul style="list-style-type: none"> <li>• Difficulty mixing with others and give and take conversations; verbose on focused issues</li> <li>• Little or no eye contact; flat affect; difficulty determining proper body space</li> <li>• Difficulty reading nonverbal/social cues (i.e. body language and facial expressions)</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a private signal that tells the student when they are speaking too loudly or quickly or unaware of other social mores/norms</li> <li>• Classroom and assignment rules that are clear and consistent and consequences that are predictable</li> </ul>	<p><b>Group Activities &amp; Assignments:</b> One student with Autism reports finding it challenging “dealing with required social situations, like group activities and assignments and communication with others.”</p>
<b>Learning</b>	<ul style="list-style-type: none"> <li>• Uneven gross/fine motor skills</li> <li>• Overly literal translations (concrete thinking)</li> <li>• Difficulty generalizing concepts from one area to another</li> <li>• Central coherence difficulties (difficulty seeing “the big picture”)</li> <li>• Poor organizational skills</li> <li>• Abstract or inferential concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Use students focused special interest to help motivate them</li> <li>• Explain abstract concepts</li> <li>• Assign homework assignments that are not redundant and projects that teach the <i>process</i> of learning</li> <li>• Display worksheets that are not visually overwhelming</li> <li>• Deliver explicit beginning and end points to tasks</li> <li>• Allow for extra time to process information</li> <li>• Provide visual instruction (i.e. to supplement spoken instruction with visual media)</li> <li>• Syllabi that are posted and adhered to</li> </ul>	<p><b>Structure:</b> likes that college is “regimented and ordered”</p> <p><b>Visual Reinforcement of Oral Instruction:</b> “I find the most helpful in learning with Asperger’s is the visual part. Writing things down when lecturing can help [me] with processing information. Conversely, the auditory aspect is the least helpful. Lecturing and speaking happens quickly and thus, it is hard to process information one just heard.”</p>

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	Diagnostic Characteristics	Research-based Classroom Practices & Strategies	An Insider View: SJSU Students with Autism Speak Out
<b>Classroom &amp; Coursework Management</b>	<ul style="list-style-type: none"> <li>• Resistance to, and difficulty with, (positive &amp; negative) change</li> <li>• Difficulty with transitions</li> </ul>	<ul style="list-style-type: none"> <li>• Provide advance notice of any syllabus changes</li> <li>• Classroom environment that is neat and uncluttered</li> <li>• Classroom and assignment rules that are clear and consistent and consequences that are predictable</li> <li>• Course activities that are structured and presented with visual plan</li> <li>• Classwork that uses visual cues as often as auditory cues</li> <li>• Permission to get up and move around (get water) as a means of focusing and managing alertness</li> </ul>	

### References

- i. Ruthford, Emily, 2015
- ii. Ruthford, Emily, 2015
- iii. [www.autism-society.org/site](http://www.autism-society.org/site)
- iv. [nihm.nih.gov/site](http://nihm.nih.gov/site)
- v. [autismspeaks.org/site](http://autismspeaks.org/site)
- vi. Breakey, 2006 pg. 15

## Resources

### Books:

- [Students with Asperger Syndrome: A Guide for College Personnel](#) by Lorraine E. Wolf, Ph.D & Jane Thierfeld Brown, Ed.D
- [Going to College with Autism](#) by Emily Rutherford
- [Thinking in Pictures](#) by Temple Grandin
- [The Complete Guide to Aspergers Syndrome](#) by Tony Atwood

### Websites:

- [www.autismspeaks.org](http://www.autismspeaks.org)
- [www.autism-society.org](http://www.autism-society.org)
- [www.collegeautismspectrum.com](http://www.collegeautismspectrum.com)
- [www.sanandreasregional.org](http://www.sanandreasregional.org)
- [www.wrongplanet.net](http://www.wrongplanet.net)

## Student Testimonies

*"You shouldn't have to promote awareness. But for the individuals that are not aware, it is important to educate them."*

- SJSU student diagnosed with Autism



*"The best advice I can give to people is to try to spread the correct information and do it in a way that shows that one person with Autism is just one person with Autism and that we are not a box of chocolate soldiers. We are actually all different, and that it is a spectrum, there are people on one end or the other and in the middle. It is getting the correct information out there."*

- College Student with Autism

*"I have no retrospective of how I would act if I weren't on the Autism Spectrum. I only know what I have. I've been told that there's pros and cons, but I just live my life."*

- SJSU student diagnosed with Autism



# Accessible Education Center

*Ability Redefined*

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