

Teaching Students with Disabilities: Autism Spectrum Disorder and Asperger's Syndrome¹

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Introduction

Teachers of all subjects must familiarize themselves with the needs of the learners in their classrooms. Learners may present a wide variety of needs or disabilities, overt or subtle. In the case of autism spectrum disorders (ASD) and Asperger's syndrome, learners may vary greatly in the degree to which they are affected by these disabilities. The more severely affected learners are generally diagnosed with autism, whereas those with a "milder" variation of the disorder typically have Asperger's syndrome. Since autism and Asperger's syndrome are diagnosed early in childhood, instructors will likely not be involved in the initial evaluation of student behavior and performance meant to identify these disabilities. However, teachers may be involved in the ongoing evaluation of the student's performance and development. Consideration of which type of structure and learning environment is most conducive to learning for these students will help both the educator and the learner progress toward a positive learning experience for both. These disabilities appear in the same category; however, educators should learn the differences between the two. Furthermore, gaining the ability to modify instruction to effectively meet the needs of learners with these disabilities in a variety of learning environments will lead to greater classroom success for the educator and the learner.

Autism Spectrum Disorder Description of Disability

According to the National Institute of Neurological Disorders and Stroke (2015), "Autism spectrum disorder (ASD) is a range of complex neurodevelopment disorders, characterized by social impairments, communication difficulties, and restricted, repetitive, and stereotyped patterns of behavior." Children diagnosed with autism demonstrate a difficulty with communication or social interaction with other people. Symptoms of the disability may change as the child matures and may continue to change as the child progresses through adolescence. Symptoms of autism may include inconsistent eye contact, unawareness of social situations, inflexible routines, repetitive motions or sounds, robotic speech patterns, and abnormally intense focus on a subject or item of interest. People with autism may also demonstrate severe cognitive disabilities or they may have savant characteristics. In order for a person to be diagnosed with autism, he or she must have experienced the onset of the above-described symptoms before age three. Scientists are still unsure of the cause of autism, but research has shown that genetics and environment may contribute. It was previously theorized that parenting practices may have had an influence, but this has long been ruled out (O'Reilly, Sigafos, & Lancioni, 2007).

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Application in the Learning Environment

Before beginning instruction of a particular student in your class who has been diagnosed with autism, meet with the student's case manager to learn about his or her educational history. Reviewing the modifications on the student's Individualized Education Plan (IEP) on your own and with the case manager will help to clearly outline the student's needs and aid in planning your instruction. Sometimes the modifications will indicate the level of performance at which to assess the learner or they may indicate that the student should be graded on a pass/fail basis. Contact the parents/guardians of your student to gain their perspective and valuable information on what works best for their child. Frequently, students with more severe cases of autism will also be paired with a paraprofessional aide to assist them in their classes throughout the day. It would be beneficial to include the paraprofessional in your conversation with the case manager in order to facilitate clear communication. Assembling this information before the school year begins can help to make a smoother start for both the educator and the learner.

CLASSROOM ENVIRONMENT

Establishing clear routines and norms is beneficial for students with autism. They typically do not vary from their established routines, so if your classroom routine does change, it may take students with autism a longer period of time to adjust. Use clear, simplified language and transition phrases so that students with autism will better understand your directions. Creating graphic organizers for class information that utilize pictures or diagrams of tasks or tools can be useful as well. Be sure to note the particular strengths and personalities of the learners in your class because students with autism present patterns of behavior in a variety of ways. Some students may do their best work when presenting to the class, while others will best demonstrate learning by selecting answers from a variety of diagrams supplied to them. If your student is assigned to a paraprofessional, have a conversation with him or her to communicate your expectations for the student. If the paraprofessional does not have a clear understanding of the assignment and the expectations of the student, then it is likely that the student will not understand either.

LABORATORY ENVIRONMENT

Not only will clear routines and norms be beneficial in the classroom environment, but they are especially important in the laboratory setting. Laboratory settings in agricultural education can vary widely, ranging from a science laboratory, to an agricultural mechanics facility, to a greenhouse, or to a livestock handling facility. Emphasize

appropriate attire and safety in these settings and contact the parents of the student to communicate this information to them as well. Providing training to the student's paraprofessional on how to perform various tasks can also help the student succeed. Once the paraprofessional has a solid understanding of the performance expected of the student, he or she can work one-on-one with the learner, allowing the instructor to make periodic check-ins and to devote more time to monitoring the whole class. In settings such as a greenhouse, where students complete regular chores, assigning students tasks that they are responsible for completing independently can help to further establish a routine for the class as a whole, but also create structure for learners with autism. Bear in mind that certain tasks may be physically challenging for learners with autism and loud noises may startle them. The instructor must explain the activities associated with working in the laboratory setting to the learner's case manager, paraprofessional, and parents before having the learner engage in such activities; this will help the instructor establish the activities that are appropriate and safe for the learner. For example, using power tools requires extensive eye-hand coordination and creates loud noises. Learners with autism who are particularly sensitive to noise may be startled and unable to use the tool safely. It is imperative to ensure safety of all students at all times, so be sure to plan ahead.

NON-FORMAL ENVIRONMENT

Agricultural education sometimes takes advantage of the opportunity to visit farms, area businesses, or museums to augment the teaching curriculum. Contact the site you are visiting ahead of time to give advanced notice that you have a learner with autism in your class because sometimes the repetitive sounds or habits that a learner with autism can display are not expected by the tour guide. Some tour guides might even be able to offer modified information to your student, particularly if it is at a museum setting. Providing students with an assignment to complete while on a tour, such as a scavenger hunt or list of particular questions to ask, can lend structure to the non-formal environment and provide more focused learning for all students.

Asperger's Syndrome Description of Disability

Asperger's Syndrome is classified as a pervasive developmental disorder (PDD); it is diagnosed by documented behavior in six different areas: social interaction impairment; stereotypical behavior; clinically significant impairment in a social, occupational, or vocational area; no clinically significant delay in language; no clinically significant delay

in cognition; and an absence of any behavior that meets the criteria for schizophrenia (O'Reilly et al. 2007). Children diagnosed with Asperger's syndrome may frequently speak as though they are adults and may not demonstrate the normal speech patterns or topics of their peer group. This is particularly evident when speaking about a topic of intense interest. They may talk at length about a topic of interest and so intensely that they do not allow others the opportunity to engage in conversation. Along with difficulty in recognizing norms of conversation, learners with Asperger's syndrome may find it difficult to engage in group work, due to the difficulty they experience with social situations. As a result of their difficulties with communication, learners affected by either Asperger's syndrome or autism may experience secondary diagnoses of anxiety and depression (O'Reilly et al. 2007).

Application in the Learning Environment

As with students diagnosed with autism, it is important to talk with the student's case manager and parents before the school year begins so that you can obtain information from the student's IEP that can help you plan class and modify assignments if need be. Some students with Asperger's syndrome are extremely academically driven, particularly in subjects of intense interest to them, but this is not the case with all learners with Asperger's syndrome. Secondary diagnoses of anxiety and obsessive-compulsive disorder may also prompt additional modifications in terms of extended time to complete assignments, alternative test locations, and access to copies of the instructor's notes. Be sure to educate yourself on these modifications early on so that you can implement them right away.

CLASSROOM ENVIRONMENT

Learners with Asperger's syndrome benefit from the same clear expectations and routines that other students do. Establishing these routines early on can help to ease the students' transition into your class. Frequently, learners with Asperger's syndrome do not understand non-literal language. Instruction delivered without the use of irony or sarcasm is more clearly understood by learners with Asperger's syndrome. Additionally, incorporating instruction in communication and social skills for all students can be another strategy to help learners with Asperger's syndrome understand how to interact with their peers, given that social interaction is often an area of difficulty for them. Additionally, teaching other students how to interact with learners with Asperger's syndrome, in both social and academic settings, can help to create positive group interactions and a better experience for all students (Bullard 2004). Because learners with Asperger's syndrome are

sometimes diagnosed with secondary conditions of anxiety or obsessive-compulsive disorder, clearly announcing and posting due dates and assignment expectations can help to alleviate the stress that these students may place on themselves. Talk with the student's case manager and the school nurse ahead of time to help you determine the appropriate course of action if the student experiences debilitating anxiety during class.

LABORATORY ENVIRONMENT

Because learners with Asperger's syndrome are so literal in their communication, they may find it difficult to follow directions in the laboratory setting if the directions are not precisely clear. Monitoring student progress in these areas and providing guidance as necessary can help ensure that all learners in your class stay on track toward achieving the desired performance. Some learners with Asperger's syndrome may excel in these environments due to a pre-existing interest, so much so that the instructor may need to provide more rigorous challenges for the learner. Other times, learners with Asperger's syndrome may not be aware of their physical surroundings or may struggle with motor skills and need more close monitoring, particularly when working with heavy equipment and animals.

NON-FORMAL ENVIRONMENT

Providing all students with structured expectations for performance in the non-formal environment can help to ensure a smooth experience for all learners. Instructor and students should agree on a visual cue for the students to use to let the teacher know that they are overstimulated and need a break. Find a space away from the group where overstimulated students can go to decompress. Simple preparatory steps like these can help the students self-regulate their experience (Bullard 2004).

Conclusion

Learners diagnosed with autism and Asperger's syndrome interact with the learning environment in unique ways. Of primary difficulty to these learners are communication and social skills. Working to establish clear communication with the learners' support network, as well as the learners, themselves, will create a more effective learning environment. Resources for working with these learners are available through a variety of organizations such as Autism Speaks, the Autism Society of America, the Autism Research Institute, and books and articles by autism advocate Dr. Temple Grandin.

<https://www.autismspeaks.org/>

<http://www.autism-society.org/>

<http://www.autism.com/>

<http://www.templegrandin.com/>

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