Asperger Syndrome Case Study:
Including Lesson Plan and Accommodations

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Introduction

This case study involves a fourth grade girl who has been diagnosed with Asperger syndrome. What is known about Student Q, as she will be referred to in this study, is that she has an interest in horses. Since the disorder affects many facets of her life, a full examination of her disorder must be explored in order to accommodate her needs within the general education classroom.

History

Asperger syndrome is not a newly discovered disorder. Particular behaviors associated with the disorder were published in a paper in 1944 by a Viennese psychiatrist named Hans Asperger (Lerner and Johns 236). Later, the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV, 1994) increased awareness of the disorder when it included behaviors associated with the disorder (Stokes 26). According to Stokes, research has found that 1 in 300 people have Asperger syndrome and that it “affects boys to girls with a ratio of 10:1 (Stokes 26).

Diagnostic Criteria

Asperger syndrome is classified as an autism spectrum disorder (ASD), which is a subgroup of pervasive developmental disorder (PDD). (Vaughn, Bos, and Schumm 144). An IEP Team most often identifies the students with this disorder by noting certain characteristics associated with the disorder. As Stokes lists in general terms, the diagnostic criteria for Asperger’s is: “Impairment of social interaction; impairment of social communication; impairment of social imagination, flexible thinking and imaginative play; absence of a
significant delay in cognitive development; and absence of general delay in language development” (Stokes 26). Many of the characteristics are similar to those of autism and so Asperger’s is considered to be a form of “high functioning autism” (Stokes 26). A cause for the disorder has not been found as of yet and therefore, preventative actions cannot be established. (Vaughn, Bos, and Schumm 145).

**Characteristics and Intervention Strategies**

According to the information compiled by Stokes, students with Asperger syndrome have ten primary characteristics: 1) “social relation difficulties”; 2) “social communication difficulties”; 3) difficulties with “language comprehension/auditory processing”; 4) “sensory processing difficulties”; 5) “difficulty representing language internally”; 6) “insistence on sameness”; 7) “poor concentration/distractibility/disorganization”; 8) “emotional vulnerability”; 9) “restricted/perseverative range of interests”; and 10) “difficulty taking the perspective of others (Mind Reading/Theory of Mind deficit)” (Stokes 27-44). Many of the characteristics interrelate, therefore, they will be combined into five main points for discussion purposes: 1) the inability to handle chaos; 2) sensitivity to stimuli; 3) the need for information, directions, and rules to be displayed visually due to auditory processing difficulties; 4) limited/focused interests; 5) interacting with others in awkward and inappropriate ways.

**Point #1: Inability to handle chaos:**

Students with Asperger syndrome have great difficulty handling what to them is seen as chaos (Stokes 37). A typical student may not see the bus ride to school as chaotic, or the social interaction in the hallways between classes as chaotic, but these are the very events that cause
great stress and anxiety for the student with Asperger’s (May 4). In order for a learning environment not to feel chaotic, rules and routines need to be established and posted (Stokes 39-40). When rules and routines are unable to be adhered to, the student needs to be forewarned, preferably with a visual reminder (Stokes 38). To help the student avoid the chaos of transitioning from one class to another, an effective strategy is letting the student leave early or later (Stokes 36). To help the student handle transitioning from a high-preference activity to a low-preference activity, teachers are encouraged to balance the activities out and break them up with neutral activities in between (such as “drawing”) (Vaughn, Bos, and Schumm 150). Ritualistic behavior is evident in their “need for closure/completion” of assignments (Stokes 38). Stokes continues by suggesting that a “‘finish later’ folder/box” be available as part of the daily routine because “even though the child may be verbally reminded that he can finish his math worksheet after recess, this information will not be processed as readily as through the use of a visual strategy,…”(Stokes 38).

**Point #2: Sensitivity to stimuli:**

These students experience sensitivity to many examples of stimuli, such as light, smells, things touching them, taste, movement, and noise (Stokes 34). Desensitizing strategies can sometimes be part of therapy with outside specialists (Lerner and Johns 238), but for a general education teacher, the answer may simply be to accommodate the student by way of teaching strategies or other means (Stokes 27). Some smells cannot be avoided and so the student may need to be temporarily placed in another room (Stokes 35). For noises, headphones can be used to either block out the noise or provide “calming music” (Stokes 34-35). Students can be allowed to complete their work in a designated “quiet area” of the classroom, sit in a “rocking chair” or
on a “therapy ball,” or fiddle with an item from an accessible “fiddle basket”, such as “small kush balls, Bend Bands, Fiddle-links, clothespins, etc.” (Stokes 36). The effects of stress may not always be clearly visible, so the student should also have scheduled “break” times marked on his/her schedule that allow for a release (Stokes 35).

Point #3: the need for information, directions, and rules to be displayed visually due to auditory processing difficulties:

These students need information, directions, and rules to be displayed visually because their brains do not process auditory information as quickly as the typical person (Stokes 27-28). Also, they can become easily distracted by both “internal and external stimuli,” such as worrying about “a storm” or “watching a fly buzz around the room” (Stokes 39). They will have difficulties “organizing their thoughts and ideas”, “gathering educational materials needed”, “keeping track of their belongings”, and with “desk and locker organization” (Stokes 39). The best thing for these students is to keep the “auditory information to a minimum” and have the main points displayed visually (Stokes 28, 34). Because they have difficulty processing abstract information, especially when given auditorily, directions need to be given in a step-by-step manner; the student will not assume anything. For instance, telling a student to take out their worksheet will not always translate that they need to start working on that assignment. Everything needs to be laid out in an organized and visual manner, using checklists, schedules, agendas, calendars, and outlines (Stokes 34, 39-40). Folders and notebooks should be color-coded by subject and there should be designated folders for assignments that need to be completed and for assignments that have been completed (Stokes 40).
Point #4: limited/ focused interests:

Students with Asperger syndrome have very specific interests and often will not participate in the learning activity unless the object of their fixation is somehow utilized in the lesson (Stokes 41-42). They have many questions about their topic of interest and they like to talk at other people in great length about their topic of interest (Stokes 41). If at all possible, lessons should somehow incorporate the student’s topic of interest (Stokes 42). For example, a child who is fascinated with maps may be more willing to work on a math lesson if maps are somehow used (Stokes 42). Having an ongoing assessment of student preferences is suggested, which “can be as simple as a piece of paper listing the items the student likes” (Vaughn, Bos, and Schumm 149). The student’s topic can be given a scheduled time for discussing on the student’s schedule (Stokes 42). Stokes also suggests that the student be referred to a “written answer to repetitive questions asked by the child”, which can also “assist in comprehension” (Stokes 42).

Point #5: interacting with others in awkward and inappropriate ways:

They also have difficulty in socializing, which can result in depression and self-esteem issues. If not addressed, the effects can carry over into their academics. This will clearly be a focused area of concern (Vaughn, Bos, and Schumm 153). The social aspects that are affected are the following characteristics discussed by Stokes: social relation difficulties; social communication difficulties; difficulty representing language internally; language comprehension difficulties; and difficulties taking the perspective of others.

The difficulty in social relations refers to the “lack of effectiveness” they have relating to others (Stokes 29). These students have difficulty “understanding and expressing varied emotional states,” “both in themselves and in others” (Stokes 30). Their concept of friendship is
different in that they may think someone they see everyday is their friend (Stokes 29). They also are not affected by “peer pressure” (Stokes 29). They do not always follow social rules (rules that people just know) because they have difficulty knowing when to apply the rules (Stokes 29). They do not generalize rules, but rather they apply them only to specific situations (Stokes 29). Recognizing and interpreting various social situations can seem too abstract for them (Stokes 29). The main issue though with social relations is that they do not have the “give and take” in their conversations (Stokes 28). Conversations will seem “one-sided” as the student goes on and on about their favorite topic (Stokes 31, 41). This can put people off if they do not understand the student’s disorder, because they may interpret the student as being rude (Stokes 29).

The difficulty in social communication refers to the student actually communicating with others. In typical conversations, the speakers know when there is an awkward moment and they try to repair it. They may realize it because the conversation is not flowing as it should or because they are watching nonverbal behaviors. Students with Asperger syndrome have difficulty doing so (Stokes 31). Additionally, they may deliver their verbal messages with a “flat affect,” lacking “tone” of voice, “volume, pitch, stress and rhythm” (Stokes 32). They may not recognize appropriate “personal space” as well (Stokes 33). They sometimes leave out “important information” when retelling stories, give an “excessive amount of irrelevant information” and they repeat, pause, and revise as they speak (Stokes 32, 44).

The difficulty representing language internally refers to the student “blurting out” whatever is on their mind, even though it may be inappropriate to do so. This coincides with their difficulty in taking the perspective of others. They have a delay in developing “Theory of Mind” which prevents them from understanding others’ intentions, emotions, or thoughts (Stokes 43). Because of this, they are susceptible to being mistreated by other children with “wrongful
intent” (Stokes 43). They can be seen as hurtful or uncaring when they don’t respond the way one would expect in a situation (Stokes 43). They may not be open to the ideas of others in “cooperative learning groups” (Stokes 43). They also may “call out answers” as if the teacher is only talking to them (Stokes 43).

The difficulty in language comprehension refers to the student interpreting auditory information literally and concretely. Because of this, they will not get jokes, riddles, and teasing and they will not see the multiple meanings in words or understand figurative language (Stokes 33).

Direct help can be given to improve the areas of social difficulties using various visual strategies: “role playing,” “children’s literature,” “videos,” “movies,” “TV shows,” “comic strips,” “social stories and social scripts,” “video-taping/audio-taping,” “lunch/recess club for focusing on target social skills,” and “peer partners support network” (Stokes 30-34, 37, 44). Visual strategy cards can be used for reinforcing appropriate social responses (Stokes 30-34). They can be used to indicate when “more time is needed to respond,” “help is needed,” or they want to play with another student (using words instead of being physical) (Stokes 30-34). The cards can be used to practice discussing and maintaining “varied topics,” “taking turns in conversations,” “asking questions on topics initiated by others,” and using “greetings” (Stokes 30-34). Students can also be taught to generalize social rules through a technique called “scope and sequence”, which focuses on teaching the basics first, then when to apply the rule (May 8).

Training/Programs

Training needs to be conducted on all levels: 1) “the entire school staff” on general aspects of the disorder; 2) “child-specific training for the educational staff” in direct contact with
the student; and 3) “peer-training” (with “parental permission”) (Stokes 27). Stokes suggests two programs: 1) “TEACCH,” which is at “the kindergarten to approximately second grade level” and 2) “Carol Gray’s ‘Sixth Sense’,” which is “designed for children between the ages of 8-18” (Stokes 27). According to May, TEACCH stands for “Treatment and Education of Autistic and related Communication-handicapped Children” and it has 4 main elements: “the physical structure of the classroom, a visual schedule of the day’s activities, an explanation of the type and length of the work expected, and instructions presented visually in addition to verbally” (May 6). May also discusses “a mentoring program called Wings Mentor Program’,,” which supposed “‘improves students’ self-concept, positively changes others’ perceptions of them, and promotes their overall motivation in the classroom.’ (Shevitz, et al., 2003, p. 42)” (May 6). The programs are evidently available for training purposes.

**Conclusion**

In summary, Asperger syndrome is a type of autistic disorder that requires training and cognizance on the part of those working with the student, in order to provide appropriate intervention strategies and accommodations. In this study, Student Q is a fourth grade girl with Asperger syndrome who is interested in horses. Using the five main points discussed, appropriate accommodations should be able to be made for this student to be successful in the general education classroom.
Works Cited


Lesson Plan Considerations

As previously mentioned, Student Q is a fourth grade girl with Asperger syndrome who has an interest in horses. Throughout the past few months, I have tried to incorporate the topic of horses into my lesson plans; however, I am running into several problems. Many of my other students are now becoming bored and/or agitated anytime the topic is brought up. The boys, especially those with ADHD, are losing interest. Also, I would like to talk about habitats in the ocean. Realistically, I cannot continue to incorporate horses into every topic I teach the class as a whole, and unless I try something new, I may end up having to develop a separate lesson for Student Q. I have decided to try to “branch off” of the topic of horses and now try to talk about seahorses. In order to do so, I need to make a connection between horses and seahorses, aside from the obvious. This way, I can get Student Q’s interest, but also have my other students engaged. The way I plan to make the connection is through a mentor text.

The importance of reading and writing literacy has increasingly been stressed. Many education courses are stressing that children’s literature be used as mentor texts in teaching the writing process, as well as an introduction into topics, such as science, math, and social studies. With that in mind, I researched a children’s picture book that was relatively age-appropriate that could be used for making the necessary introduction/connection. *I Sea Horses, From Sky to Sea* by Dawn Van Zant of the Wild Heart Ranch Books appears to meet my needs. According to a review by Mayra Calvani, a reviewer on the I Sea Horses website, the book is a “fictional, magical marine adventure book about a herd of wild horses that transforms into seahorses.” She continues to explain that it is a “tale of how a herd of wild horses followed the light from a Star and entered the aquatic realm to become seahorses. Pegasus, the leader of the herd, has had a bad dream – a vision in which his beloved herd will no longer be free to roam the land unfettered by
fences and without human riders. Acting on instinct, and in response to his dream, he leads his band of mares towards a new home – a home under the waves! There, the sea horses meet their Lucky Star, Marina, who offers a light to guide them in the dark waters.” Additionally, she states that the book is “designed to inspire young children to follow their dreams, and move beyond their fears into uncharted territory.” That is even more of a reason to choose this book.

After deciding on the new topic of Seahorses and choosing a mentor text to make the connection, I researched seahorses in order to develop a lesson plan. While researching, I found the site for Monterey Bay Aquarium in California. They have a whole section on the site dedicated to seahorses, along with well-prepared lesson plans. The lesson plan topics are: 1) “Seahorse Similes” (Seahorses, Adaptations); 2) “A Seahorse Life Cycle: Father Knows Best!” (Seahorses, Life Cycle); 3) “Seahorse Homes” (Seahorses, Habitats); and 4) “Ocean Poetry” (Poetry). The lesson plans cover numerous National Science Education Standards, which can easily be applied to Michigan Science Grade Level Content Expectations. Additionally, the lesson plans cover numerous English-Language Arts Standards, which as I mentioned is expected to be incorporated into the curriculum as much as possible. The lesson plans include special “in context” vocabulary words to accommodate my ESL students. The Grade Levels covered in the lesson plans are Pre-K/K through 5th grade, which means they will be relatively easy to modify for my students with other disabilities. Additionally, I can use this lesson plan again in the future, even if I am no longer teaching fourth grade the following year. For the purpose of this case study, I chose to make accommodations on the Seahorse Similes lesson plan.
Lesson Plan Accommodations

✓ I would read the mentor text first: *I Sea Horses: From Sky to Sea* to make the connection between horses and seahorses.

✓ I would have a written agenda on the white board of the main points of the lesson as well as an individual checklist for my students with disabilities:
  
  o Explore what all fish have in common
  
  o Introduce the idea of a seahorse as a fish
  
  o Students use cards to complete a seahorse simile.
  
  o Student pairs examine their seahorse characteristic.
  
  o Student pairs share their seahorse similes.
  
  o Identify what makes a seahorse a fish.
  
  o Discuss ways humans can protect seahorses.

✓ I will have a quiet area designated for Student Q to retreat to if the activity becomes too over-stimulating. I need to accommodate my other students as well, those who need to move around and do some socializing, so this is my compromise.

✓ I may choose to spend more than the thirty minutes that the lesson plan calls for, in order to ensure that my students do not feel rushed. This should help minimize the feelings of chaos and ensure that it will just be an enjoyable lesson with no pressure, stress, or anxiety.

✓ I like that the lesson involves many visual aids. This will not only accommodate Student Q, but also other students who are visual learners.

✓ I know that similes can be an abstract concept, although it is a component of language arts that needs to be taught. With the assistance of the like/because simile cards, the
concept should be made easier for Student Q to grasp. I will monitor her progress to ensure that she does.

✓ I will give Student Q a copy of an outline of the background portion of the lesson to make sure the parts are broken down in chunks that can be processed easily.

✓ I know that small groups may be seen as social interactions for the student with Asperger syndrome; however, Student Q will only need to find the person who matches her card. If she runs into any difficulty, either the other person will find her or she and one other student will be left looking, so eventually they should find each other.

✓ I will keep my verbal directions to a minimum and rely heavily on visual aids, checklists, outlines, etc.

✓ I will monitor Student Q’s interest level on the topic of seahorses to evaluate the extent to which I can “branch off” the topic of horses in the future. This would be useful to know in case I want to explore the stars and want to branch off again using Pegasus.

✓ Before anything I want the students to do, I will first use myself as a model of what I want them to do, then I will do it again with their help, then I will have them do it individually. Having Student Q visually see me and others role model what is expected will make it easier for her to process the directions of the lesson.

✓ I will incorporate Student Q’s special social interaction cards as needed. For instance, if she is not following a well-established rule, I may have her refer to her rules cards. If she continues to want to talk about horses even though we are now talking about seahorses, then I may need to refer her to her schedule to show her that it is not time to talk about horses and based on the schedule, when the topic of horses is scheduled to be discussed.