TEACHING STUDENTS WITH ASPERGER SYNDROME

A Paper Prepared for Graduate Seminar
In Partial Fulfillment of
The Requirements for the Degree
Master of Educational Special Emphasis

Davina Cardone

November 2008
TABLE OF CONTENTS

SECTION I: The Problem
Introduction
Statement of the Problem
Purpose of the Literature Review
Importance of the Literature Review
Scope of the Literature Review

SECTION II: Literature Review
Introduction
Literature Review
Summary

SECTION III: Conclusion
Implications from the literature review (A)

REFERENCE LIST
SECTION I: The Problem

Recent research estimates the prevalence of Asperger Syndrome (AS) with a range from 3.6 to 7.1 per 10,000 children, with a male to female ratio of 2.3 to 1 (Stoddart, 2005). Statistics indicate that while boys are being referred and identified in greater numbers of having Asperger Syndrome, this is not the case for girls. Girls are also being diagnosed but at later ages compared to boys.

Children with Asperger Syndrome have impairments in communication, imagination and socialization to a lesser degree than other children. This is why it is essential to realize that each of the symptoms is manifested in a variety of unique and diverse ways, depending upon the overall abilities of the person affected (Willey, 1999). According to a study published by (Gibbons & Goins, 2008) there are major school-related issues for children who have the disorder. Mainstream classrooms can have many distractions. Most classes are large (some can have more than thirty children), and most of the teachers are neither trained nor equipped to handle the needs of a child with Asperger Syndrome (Rosaler, 2004). The number of students with this diagnosis is on the rise suggesting that school teachers must become aware of not only the diagnosis, but also be equipped with the knowledge of how to develop effective interventions and how to approach and effectively build on these child’s strengths to help make the learning experience a positive one.
Introduction

Asperger syndrome is a form of autism, which is a lifelong disability that affects how a person makes sense of the world, processes information and relates to other people. Asperger Syndrome is a condition which forms part of the autistic spectrum disorder because the condition affects people in many different ways and to varying degrees (Willey, 2003). In order for there to be a diagnosis of autistic spectrum disorder, there has to be impairments in the three main areas of:

- social communication
- social interaction
- social imagination.

Asperger Syndrome is a neurobiological disorder developed in the brain before birth. It is widely believed to be a hereditary trait passed on through DNA and is mostly a hidden disability (“Asperger Syndrome, What Is It”, 2008). This means that you can't tell that someone has the condition from their outward appearance.

While there are similarities with autism, people with Asperger Syndrome have fewer problems with speaking and are often of average, or above average, intelligence. It is important for teachers to realize that children with Asperger Syndrome have unique abilities and the realities of everyday life that are simple for most people can be very challenging and complicated for them (Rosalier, 2004).

Statement of the Problem

Students with Asperger Syndrome who attend mainstream school are presented with many challenges which can impact their learning experience. The mere act of
sitting in the classroom and dealing with all the distractions that exist can be very
difficult for children with this disability. The sound of children talking out loud, artwork
on the walls, bright light, and certain smells are just a few things that can distract the
child with Asperger Syndrome from focusing on what they are supposed to be doing.
These children often have difficulty knowing how to make connections socially with
other children. This can lead them to feeling isolated and subjected to bullying,
resulting in low self-esteem and even depression. With these types of characteristics it
can be an overwhelming challenge for these students in the classroom.

Purpose of the Literature Review

This literature review will provide teachers with descriptions of defining
characteristics of Asperger Syndrome, in addition to suggestions and strategies for
addressing these symptoms in the classroom.

Teachers play a vital role in helping children with Asperger Syndrome learn to
handle the world around them. It is essential that teachers provide the external
structure, organization, and stability that they lack. Using creative teaching strategies
with individuals is critical, not only to assist with academic success, but also to help
them feel less alienated from other children and less overwhelmed by the demands and
routines of everyday life.

Importance of the Literature Review

It is important for teachers to remember that Asperger Syndrome is a unique
diagnosis. It is critical that teachers consider that a child with Asperger Syndrome is not
going to learn in the same way that most children learn. In this literature review,
teachers can see the many different characteristics associated with these children, and the exceptional abilities they each have, and the reality of everyday life which may be simple for most can be challenging and complicated for them. Through different intervention strategies and learning what their special interest area is, these children can learn in a formal way, through a variety of books, pictures, activities and structured play, the type of things that other children learn just by hanging out with each other in the classroom, the playground or after school. It is through this knowledge of intervention that teachers may be able to reach these students in a productive and effective way.

Scope of the Literature Review

There is ongoing research relating to Asperger Syndrome. The scope of this literature review was conducted with fifty references by using a variety of texts, journals, databases and web pages. Each of the references contained information that was compiled into specific categories of characteristics, and intervention strategies.

SECTION II: Literature Review

Students with Asperger's syndrome are usually in regular school settings (Goble, 1995). These children present a challenge for their parents, teachers, and peers. Each teacher, staff or peer should receive some type of training on the unique characteristics and educational needs of children with Asperger Syndrome. Staff should be informed that a child with Asperger Syndrome has a developmental disability, which causes them to respond and behave differently from other students. It is important to realize that
these types of responses and behaviors should not be misinterpreted as purposeful and manipulative behaviors.

The teacher who will be directly working with these children should understand the individual strengths and needs prior to actually working with the child. If possible it would be helpful to know as much information about this student through the help of previous teachers, the speech or language pathologist, occupational therapist, teacher aide and most importantly, the child’s parents. Training in social skills should not just be restricted to the classroom, it should also include social interactions and behaviors appropriate to the playground. These skills should be taught in a structured, formal way which combines explicit teaching, practice, and the monitoring of behavior in a variety of settings (Attwood, 1998).

The peers and classmates of a child with Asperger Syndrome should be introduced about the different characteristics and behaviors that Asperger Syndrome children might have. It is important to first get prior permission from the parents before peer training. Depending on the grade level of the peers and classmates, there are many books and websites available to assist in talking about and understanding the characteristics of children with Asperger Syndrome.

History of Asperger Syndrome

Asperger's Syndrome was named for an Austrian pediatrician, Hans Asperger who published the first definition of Asperger Syndrome in 1944 (Turkington & Anan, 2007). He had a special interest in “psychically abnormal” children. He was able to identify different patterns of behavior and abilities in which he saw mostly in boys. These
Asperger Syndrome Students

included a lack of empathy, little ability to form friendships, one-sided conversations, intense absorption in a special interest, and clumsy movements. Hans Asperger called these children with Asperger Syndrome “little professors” because of their great ability to talk about a subject with great detail (Turkington, 2007). He published a paper in German describing a consistent pattern of abilities and behaviors that occurred primarily of more than 400 children. In the early 1980s Asperger's paper was translated into English, which resulted in international recognition for his work in this area (Turkington, 2007).

Causes of Asperger Syndrome

Asperger Syndrome is caused by a neurobiological disorder developed in the brain before birth. The myths that having bad parents and a rough home life as causes of this disorder are simply not true, contrary to what some people still believe. Considerable research has been, and is being, conducted around the question of, What causes this kind of autism? Researchers feel that, like depression and bipolar disorder, Asperger Syndrome can be passed on from generation to generation, with no telling who will get it from one family to the next. There is now a consensus among scientists that autism/PDD (Pervasive Developmental Disorder) is a genetic disorder (Bristol, Cohen, Costello, Denckia, Eckberg, Kallen, Kraemer, Lord Maurer, McIlvane, Minsher, Sigman & Spence, 1996).

While Asperger Syndrome is often described as "High Functioning Autism" or a "Nonverbal Learning Disability," it is unique in and of itself. Those with the disorder typically have normal to high IQs and even excel in one or two areas of highly
complex information such as math, history or music. Currently, there is no cure or prescribed treatment for individuals with Asperger Syndrome. As adults, those with the disorder can and do lead very productive lives. They live and work independently and many raise families and hold professional career positions.

There can be a few obstacles in the real world for those with Asperger Syndrome, however. The gullibility and lack of common sense is the one that often causes trouble. Another is the literal sense with which everyday conversations are interpreted. Persons with Asperger Syndrome can often be so extremely literal that they may have a hard time using language in a social context, despite a very high vocabulary.

**Diagnosis of Asperger Syndrome**

Research regarding Asperger Syndrome is limited although there have been several trends that have been discovered. Similar to autistic disorder, Asperger Syndrome is more common in boys than girls. The diagnosis of autism is made by a physician or clinical psychologist with expertise in the area of autism. Assessment and diagnosis typically involve a multidisciplinary team comprised of a pediatrician or psychiatrist, a psychologist, and a speech and language pathologist (SLP). The psychologist administers assessments to gather information on developmental level and behavior. The Speech and Language Pathologist assesses speech, language, and communicative behaviors. The medical assessment is conducted to rule out other possible causes for the symptoms, as many of the characteristics associated with autism are also present in other disorders (Saskatchewan Education, 1999).
The diagnosis of Asperger Syndrome is usually made when a child is six years of age through examining a typical pattern of behavior, activities and interests (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition [DSM IV], 1994). This manual is published by the American Psychiatric Association and covers all mental health disorders for both children and adults. A child does not have to demonstrate all of the diagnostic criteria listed to be labeled with Asperger Syndrome however he must demonstrate at least three symptoms within these categories, with at least two being in the area of qualitative impairment in social skills, and at least one in the area of restricted and repetitive behaviors (Saskatchewan Education, 1999). Each symptom observed has to have been seen frequently in order to be “counted” when ascertaining if Asperger Syndrome is present (Bruey, 2004).

Diagnosis has also been made through the use of the Australian Scale for Asperger’s Syndrome by Garnett and Attwood (1997). This instrument uses a scale whereby parents or educators rate 24 behavioral dimensions from “rarely” to “frequently”. There are also two other approaches that can also be used. The Gilliam Asperger’s Disorder Scale by Gilliam (2001), published by PRO-ED, and the Childhood Autism Rating Scale by Schopler, Reichler and Renner (1998), published by the American Guidance Service.

In addition, a medical and developmental history is taken through discussion with the parents. This information is combined with the assessments to provide the overall picture, and to rule out other contributing factors.

This disorder was not even mentioned in the American Psychiatric Association’s diagnostic manual until its 1994 revision (Bruey, 2004). Because of this many children
who are now adolescents or adults with Asperger Syndrome were either misdiagnosed or remained undiagnosed for years. The mis-diagnosis that was usually assigned to these children included Attention-Deficit/Hyperactivity Disorder (ADHD), Mild Autism, or Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS), (Myles & Simpson, 1998). This is also why it is so important for teachers to observe and recognize the different behaviors of all the different students in the classroom.

**Asperger Syndrome and Schooling**

An Asperger child, while seeming difficult or intractable, may in fact be in considerable distress and in need of diagnosis and appropriate help (Whybra, 2007).

In regular classroom placements accommodations, modifications and some services are important. They are determined by the evaluations done on the child. Capturing the child’s “unique needs” in the testing will determine the components of the IEP (Individualized Educational Plan) (“Asperger Syndrome Education- Elementary,” 2008).

There are several things that every teacher who interacts with children with Asperger Syndrome should know. The first is to remember that the child is first and foremost a child. They have autism, they are not primarily autistic. Children are still growing and unfolding, and it would be foolish to say as an educator “I know what they may be capable of.” Teachers shouldn’t define any child by one characteristic, which could allow for the danger of setting up an expectation that may be too low (Koegel & Koegel, 1995). It is important that any child doesn’t sense that the teacher doesn’t think they can do it, otherwise this allows the child’s own natural response of, why try (Notbohm, 2005).
Another thing is to please remember to distinguish between won’t (I choose not to) and can’t (I am not able to). In other words, it is not the fact that the child is not listening to instructions, or they can’t understand you. If you are calling from across the room, what the child hears is: “!*#^$, Johnny. !*#^$%.” Instead approach the child and speak directly to them in plain words: “Please close your book and put it in your desk, Johnny. It is time for recess.” This allows the child to hear what you want them to do and what is going to happen next (Notbohm, 2005).

Please be patient with the vocabulary that the child is using. Children with Asperger Syndrome can sometimes sound as if they are a little professor or a movie star, rattling off words or whole scripts well beyond their developmental age which is know as echolalia. These are the messages they have memorized from the world around them through television, books or speech to compensate for language deficits, because they know they are expected to respond when spoken to (Notbohm, 2005).

Some children with Asperger Syndrome are thought to be age appropriate in their language development, or even advanced because they have excellent vocabularies and can sight-read and sound out text that is three years ahead of their grade level (Greenspan & Wieder, 2006). This is a significant challenge that teachers need to address if these children are to move ahead in school and beyond.

There are a lot of specific things teachers can do, but the most important thing is their approach. This approach is the magic bullet that can help the entire class learn of the lessons that matters most to all: how to accept and get along with a variety of people (Coulter, 2005). Focus and build on what the child can do rather than what they
can’t do. Like all other children it is difficult or nearly impossible to be in an environment where the child is constantly made to feel that they are not good enough and that they need fixing. Look for the strengths of the child because there is more than one right way to do most things.

An effective program will need to recognize the students' strengths and provide opportunities for them to achieve in their specialized areas of interests. Opportunities to make use of obsessional interests in the curriculum need to be explored.

Cooperation between teachers, staff training opportunities, and coordinated planning can provide a positive classroom experience for all students in the inclusive school. Information collected from previous teachers, specialists, support groups and associations combined with parental input can give the classroom teacher confidence in dealing with students with Asperger Syndrome (Carrington & Graham, 1997).

A predictable routine facilitates academic achievement by assisting students with Asperger Syndrome to focus on what is important and screen out distractions.

Teacher aides have traditionally been used to support students during class activities. However, teachers may opt to use their aide time to explicitly reinforce and monitor the social interactions and behavior of students with Asperger Syndrome while eating and playing with peers during recess and lunch. This can create a solid framework of positive interactions during free time that students can build on during class time.

Teachers will need to reconsider the learning outcomes of classroom activities for students with Asperger Syndrome and creatively plan for their differences using multiple
strategies. The following observation during a first grade math activity illustrates this notion. Students were instructed to sort various types of animals based on their weight into the categories of greater than and less than. They were required to cut out pictures of the animals from one worksheet and glue them under category headings onto another worksheet. A student with Asperger Syndrome in the class had enormous difficulty with this task. What were particularly difficult for this student were not the categorization task but the cutting and gluing. He was consumed by the sensation of glue and paper on his fingers. He was overwhelmed and, as a consequence, very disruptive.

However, when questioned about the pictures and categories, the student could provide more detailed information than usually expected in first grade students. If the teacher knew how to use and when to use different intervention strategies this would have been a creative way of adapting the curriculum, thus changing the way the student learned. Because the student could explain his categorization of animals to the teacher, or a peer an alternate strategy that could have been implemented is to draw the animals rather than cut and paste the pictures. This is an example of why if teachers learn the characteristics along with intervention strategies for students with Asperger Syndrome, it may decrease the chance of disruptive behavior in the classroom for some students.

There are numerous amounts of strategies that are recommended to teachers for teaching students with Asperger Syndrome. Because students with Asperger Syndrome share some of the same characteristics as individuals with autism, there is a debate on
whether Asperger Syndrome is an independent diagnostic category or another
dimension at the higher end of the autistic continuum (Szatmari, 1995). The following
identifies specific characteristics and suggests a number of possible classroom
intervention strategies in which teachers can use that can help the child benefit
academically, socially, and emotionally.

Characteristics associated with Asperger Syndrome

Although Asperger syndrome shares some characteristics with higher-functioning
autism, there are some unique features, and a different developmental progression and
prognosis for individuals with AS (Myles & Simpson, 1998).

Most people with Asperger Syndrome need order and ritual and will find ways to
make order where they feel chaos (Hughes, 2004). They lack the ability to connect
socially and to communicate effectively. Students may find it difficult to empathize with
others and to ‘see things’ from another’s point of view (“Teaching Practices, Asperger’s
Syndrome,” 2008).

A child who has Asperger Syndrome will display problematic behaviors at home, at
school, and on the playground. But the problems do not improve when in the company
of other children with Asperger Syndrome. It is essential for teachers to examine
carefully the context in which the problem behaviors occur. Some of the academic
difficulties children with Asperger Syndrome will have are:

- Usually has average to above average intelligence.
- Good recall of factual information.
• Areas of difficulty include poor problem solving, comprehension problems and
difficulty with abstract concepts.
• Often strong in word recognition and may learn to read very early, but difficulty
with comprehension.
• May do well at math facts, but have difficulty with problem solving.

Intervention Strategies:
• Do not assume that the student has understood simply because he/she can re-
state the information.
• Be as concrete as possible in presenting new concepts and abstract material.
• Use activity-based learning where possible.
• Use graphic organizers such as semantic maps, webs.
• Break down tasks into smaller steps or present it another way.
• Provide direct instruction as well as modeling.
• Show examples of what is required.
• Use outlines to help student take notes and organize and categorize information.
• Avoid verbal overload.
• Capitalize on strengths, e.g., memory.
• Do not assume that they have understood what they have read. Check for
comprehension, supplement.
Social Communication

Social communication is defined as, concrete understanding of language and formal, monologue type use of speech and a distinct difficulty in interpreting non-verbal forms of communication (“The National Autistic Society”, 2008).

Characteristics:

- Children with Asperger Syndrome usually speak fluently by five years of age, they often have problems with pragmatics, the use of language in social contexts, semantics not being able to recognize multiple meanings and prosody the pitch, stress, and rhythm of speech, (Attwood, 1998).
- These children will often have large vocabularies. Many have what is known as echolalia, which is a parrot like repetition of a word or sentence just spoken by another person often without comprehension (Turkington & Anan, 2007).
- Learning is primarily in the form of memorizing facts but seldom being able to apply them in a meaningful and creative manner without specific direction or assistance.
- Tendency to make irrelevant comments.
- Tendency to interrupt.
- Tendency to talk on one topic and to talk over the speech of others.
- Difficulty understanding complex language, following directions, and understanding intent of words with multiple meanings

Even when a student with Asperger Syndrome receives effective instruction in social skills, situations will arise that require interpretation. Unless interpreted, these situations
become a source of stress and do not support future learning (Myles & Simpson, 2001). With interpretation, however, perceptions of seemingly random actions can be altered into meaningful interactions for individuals with Asperger Syndrome (Myles & Simpson, 2001).

**Intervention Strategies:**

- Use Comic Strip Conversations to teach conversation skills related to specific problems.
- Teach appropriate opening comments.
- Teach student to seek assistance when confused.
- Teach conversational skills in small group settings.
- Teach rules and cues regarding turn-taking in.
- Conversation and when to reply, interrupt or change the topic.
- Use audio-taped and videotaped conversations.
- Explain metaphors and words with double meanings.
- Encourage the student to ask for an instruction to be repeated, simplified or written down if he does not understand.
- Pause between instructions and check for understanding.
- Limit oral questions to a number the student can manage.
- Watch videos to identify nonverbal expressions and their meanings.
Social Interaction

Social interaction is defined as difficulty in relating on a social level to others, inability to read the thoughts and feelings of others; forming relationships in a problem area ("The National Autistic Society", 2008).

Children with Asperger’s Syndrome can have great difficulty understanding that other people can have thoughts, intentions, needs, desires and beliefs different from their own (Cumine, Leach & Stevenson, 1998). Thus their perceptions of the world are often viewed as rigid and egocentric, when in reality they are unable to interpret the thoughts and emotions of others, or to experience empathy. Another name given to this condition is "mind blindness"—the incapacity to visualize the mind states of others (McCroskery, 1999).

Characteristics:

Students with Asperger's syndrome experience problems making and keeping friends. Many children express a desire to fit in socially and have friends but are often deeply frustrated and disappointed by their social difficulties (Bauer, 1996).

Children with Asperger Syndrome have so much difficulty in reading social cues; some authorities have recommended the use of social interpreters—“someone who can turn a confusing event into a meaningful interaction through explanation and clarification” (DuCharme & Gullotta, 2003). Researchers and practitioners have devised several techniques to train social interpreting skills. These types of students are unlikely to ever be "street wise". They remain naive and unknowing and are vulnerable, despite
sensitive and supportive care throughout their years of education (Aarons & Gittens, 1992). Other characteristics might include:

- Difficulty understanding the rules of social interaction.
- May be naïve.
- Interprets literally what is said.
- Difficulty reading the emotions of others.
- Lacks tact.
- Problems with social distance.
- Difficulty understanding unwritten rules and once learned, may apply them rigidly.

**Intervention Strategies:**

A recent study examined the effect of a social-behavioral learning strategy intervention (SODA) on the social interaction skills of 4 elementary school children with Asperger syndrome. More specifically, the study investigated the effect of SODA training on the abilities of 4 children with Asperger Syndrome to participate in cooperative learning activities, play organized sport games, and visit with their peers during lunch. SODA is a social-behavioral learning strategy developed for children and adolescents with Asperger Syndrome. It provides a set of rules meant to help these youngsters attend to relevant social cues, process these cues, and select specific social skills they will use as they participate in a social activity. When using SODA these youngsters learn to stop (S), observe (O), deliberate (D), and act (A). The first three steps (S, O, and D) include three to five self-talk questions or statements to guide
information processing. The final step (A) helps youngsters develop a specific list of things they will say and do when participating in the social activity (Bock, 2007).

All four students each benefited from the SODA intervention. They presented increases in the percentages of time they spent participating in cooperative learning activities during social studies, playing organized sport games during noon recess, and visiting with peers during lunch after SODA training began. When SODA training discontinued, they maintained the performance levels they attained during SODA training (Bock, 2007).

The results from the current study suggest that SODA may teach children and adolescents with Asperger Syndrome who have learned how to understand the mental states of others the metacognitive process, or learning strategies, needed to facilitate their social communication and social problem solving. Other intervention strategies could include:

- Provide clear expectations and rules for behavior.
- Teach (explicitly) the rules of social conduct.
- Teach the student how to interact through social stories, modeling and role-playing.
- Educate peers about how to respond to the student’s disability in social interaction.
- Use other children as cues to indicate what to do.
- Encourage cooperative games.
• Provide supervision and support for the student at breaks and recess, as required.
• Use a buddy system to assist the student during non-structured times.
• Teach the student how to start, maintain and end play.
• Teach flexibility, cooperation and sharing.
• Teach the students how to monitor their own behavior.
• Structure social skills groups to provide opportunity for direct instruction on specific skills and to practice actual events.
• Teach relaxation techniques and have a quiet place to go to relax

Social Imagination - Insistence on sameness

Social imagination is defined as rigid and inflexible ways of thinking associated with obsessions and stereotyped behaviors and a resistance to change. Alongside this is poor motor co-ordination which may appear as a physical clumsiness (“The National Autistic Society”, 2008).

Characteristics:

It has been observed that people on the autistic spectrum are characteristically extremely rigid in their thinking and related to this is their difficulty to cope with change. It has long been recognized that these individuals can function much more effectively in situations which are clearly mapped out for them (“Asperger Syndrome, What is it,” 2008).

Even though this symptom may not be easily recognized in childhood (because strong interests in dinosaurs or fashionable fictional characters are so ubiquitous among
Asperger Syndrome Students

young children), it may become more salient later on as interests shift to unusual and narrow topics. This behavior is peculiar in the sense that often times extraordinary amounts of factual information are learned about very circumscribed topics (e.g., snakes, names of stars, maps, TV guides, or railway schedules), (Klin & Volkmar, 1995). Use of positive reinforcement selectively directed to shape a desired behavior is the critical strategy for helping the child with Asperger Syndrome (Williams, 1995).

Many students with Asperger Syndrome may feel more comfortable and secure when their physical environment remains the same and they can follow a predictable routine. At the beginning of the year, then, teachers should arrange furniture and equipment in ways that will be serviceable throughout the school year, making adjustments later only if absolutely necessary (Ormrod, 2008). If the schedule must change, perhaps because of a fire drill or a school assembly, teachers should prepare students well in advance of the change (Dalrymple, 1995).

**Intervention Strategies:**

- Prepare the student for potential change, wherever possible.
- Use pictures, schedules and social stories to indicate impending changes avoid surprises: prepare the student in advance for special activities, altered schedules, or any other change in routine (Williams, 1995).
- Set firm expectations for the classroom, but also provide opportunities for the student to pursue his own interests.
- Incorporate and expand on interest in activities and assignments.
• These children respond to compliments (e.g., in the case of a relentless question-asker, the teacher might consistently praise him as soon as he pauses and congratulate him for allowing others to speak). These children should also be praised for simple, expected social behavior that is taken for granted in other children (Williams, 1995).

• Give the child an outlet for their fixation. For example, if a student finishes an assignment for class, the teacher should allow them to turn in work on the topic of their choice for extra credit (Walden, 2008).

Sensory Processing Difficulties

*Characteristics:*

In a related fashion, some individuals with Asperger Syndrome have been reported to have a high tolerance for physical pain. Further, students with Asperger Syndrome commonly engage in self-stimulatory responses (e.g., obsessive object spinning, light filtering) and other unusual stereotyped patterns of behavior. These behaviors are most often displayed when the students are under stress or when they experience fatigue, sensory overload, and so forth (Miles & Simpson, 2001). These difficulties can also decrease the student’s ability to remain focused.

Most common sensitivities involve sound and touch, but may also include taste, light intensity, colors and aromas. Certain types of noises that may be perceived as extremely intense are:

• Sudden, unexpected noises such as a telephone ringing, fire alarm, complex or multiple sounds such as in shopping centers.
Intervention Strategies:

There are strategies that teachers can use to help reduce anxiety in the child with Asperger Syndrome. Strategies included are:

- Be aware that normal levels of auditory and visual input can be perceived by the student as too much or too little.
- Keep the level of stimulation within the student’s ability to cope.
- Avoid sounds that are distressing, when possible use music to camouflage certain sounds.
- Minimize background noise, use ear phones if noise or reaction are very extreme.
- Teach and model relaxation strategies and diversions to reduce anxiety.
- Forewarn the child of any fire drills, earthquake drills etc. This can be done both orally and visually.

Behavioral and Emotional Depression/Anxiety

 Teachers should be aware to the potential for mood problems such as depression or anxiety. While students with Asperger's syndrome find it difficult to conform to behavioral expectations in the regular classroom, it is important to remember that children are rarely disruptive without reason. They are likely to disrupt the class due to their lack of ability to focus, confusion, literal interpretation of instructions, inability to read social rules and cues, and hypersensitivity. Inappropriate behavior may be an indicator of frustration and stress due to too
much noise, visual stimulation, or physical stimulation (Ormrod, 2008). Other characteristics may include:

- May have difficulties coping with the social and emotional demands of school.
- Easily stressed due to inflexibility.
- Often have low self-esteem.
- May have difficulty tolerating making mistakes.
- May be prone to depression.
- May have rage reactions and temper outbursts.

Some children may need to be medicated with an antidepressant, imipriamine or one of the newer serotonergic drugs such as fluoxetine which may be indicated if mood problems are significantly interfering with the child's functioning (“Suggestions For Teachers Asperger Syndrome Center for Family Development,” 2008).

Some children with significant compulsive symptoms or ritualistic behaviors can be helped with the same serotonergic drugs or clomipramine. Problems with lack of concentration at school that are seen in certain children can sometimes be helped by stimulant medications such as methylphenidate or dextroamphetamine, much in the same way they are used to treat Attention Deficit Disorder. Occasionally, medication may be needed to address more severe behavior problems that have not responded to non-medical, behavioral interventions. Clonidine is one medication that has proven helpful in such situations and there are other options if necessary.
(“Suggestions For Teachers Asperger Syndrome Center for Family Development,” 2008).

**Intervention Strategies:**

With regard to manipulation of consequences, it is important to recognize that many children and youth with Asperger Syndrome do not respond well to typical "top-down" management strategies (Myles & Simpson, 2001a). Approaches that seem to work best with these students give them an opportunity to participate in developing and implementing their own management systems. Whenever possible, then, it is strongly recommend that children with Asperger Syndrome be involved in their own program development and implementation (Myles & Simpson, 2001a).

A recent study by Winter-Messiers (2007), showed that when students with Asperger Syndrome are in the face of negative emotions, participants had learned to focus on their special interest area (SIA), actively or in their minds, to help them cope. SIA helped them to self-regulate stress, anxiety, frustration and to calm themselves. These participants of this study shared they felt positive emotions, which included enthusiasm, happiness, and pride when they are actively involved in their SIA. Based on these findings, the results showed that strong positive relationships were found between special interests and improvements in the students’ social, communication, emotional, sensory, and fine motor skills. The results of these findings will emphasize the critical need for teachers to understand and value the special interest of these students and the impact on their families. It is critical that a team approach be utilized
in addressing the unique and challenging needs of a child with Asperger Syndrome, with parents being vital members of this team.

One specific behavioral technique that has been found to be useful with many students with Asperger Syndrome is cognitive behavior modification (Meichenbaum, 1977). This is a technique that teaches individuals to monitor their own behavior or performance and to deliver self-reinforcement at established intervals. In this strategy, the focus of behavior control is shifted from an external source, such as a teacher or parent, to the student.

Barber (1996), describes an interesting technique that targets classroom behavior. In this intervention, a fifteen-year-old student with Asperger Syndrome was presented with a list containing appropriate and inappropriate behavior. The student was asked to put a tick or a cross after descriptions of behavior he considered to be good or bad. This type of intervention could also work well for the younger primary student. Instead of ticks, tallies or happy and sad faces can be used. This technique also provides an opportunity for the teacher and student to acknowledge behavior that is already acceptable. Other strategies include:

- Provide positive praise and tell the student what she/he does right or well.
- Teach the student to ask for help.
- Teach techniques for coping with difficult situations and for dealing with stress.
- Use rehearsal strategies.
- Provide experiences in which the student can make choices.
• Educate other students use peer supports such as buddy system and peer support network.

• Instruction and use visual supports.

Baker (2003), recommends that students are encouraged to identify their own problem areas rather than being told by others what behavior is unacceptable or inappropriate. The student in Barber's (1996), study was asked to indicate behavior that was a particular problem for him and discuss why.

Poor Concentration/Distractibility

Characteristics:

Children with Asperger's Syndrome can have a range of difficulties with attention. They may often appear off-task, and may be easily distracted by both internal thoughts and concerns and external sensory stimuli. For example, internal stimuli distraction: a child sees a single cloud in the sky and begins to obsess about whether it is going to rain and/or possibly storm. External stimuli distraction: attending to a fly buzzing around the room rather than the teacher; attending to fluorescent light flickering, (Williams, 1995).

In addition, children with Asperger's Syndrome can exhibit significant difficulties regarding both their internal and external organizational skills, including the following:

• Organizing their thoughts and ideas to express themselves in a cohesive manner.

For example if a teacher asked the student to recite all the planets in our solar system, the Asperger Syndrome child might give a thorough description of facts
about each planet, about size, distance from the sun, how many moons it might have, etc.

- Gathering educational materials needed for specific tasks/activities/homework.
- Keeping track of their belongings - including personal, backpack, lunches and educational materials such as homework and assignments.
- Desk disorganized.

*Intervention Strategies:*

- Provide frequent teacher feedback and redirection.
- Break down assignments.
- Provide timed work sessions.
- Reduce homework assignments.
- Seat at the front of the classroom.
- Use non-verbal cues to get attention.
- A written (visual) checklist is used to keep the child focused and "on task" so that he can complete each step listed in sequential order. This visual tool will allow for independent completion of an entire routine or task (e.g., use of a "morning routine" checklist or "homework" checklist).
- A daily (individualized) visual schedule should be used to communicate to the child what is currently happening, when he is "all done" with something, what is coming up next, and any changes that might occur.
Organizational skills

*Intervention Strategies:*

- Use schedules and calendars.
- Maintain lists of assignments.
- Help the student to use to do lists and checklists.
- Place pictures on containers and use picture cues in lockers and/or cubbies.
- Use of a visual calendar at both home and school will give the child information regarding up-coming events/activities. When the child asks when a particular event will occur, he can easily be referred to the visual calendar, which presents the information through the visual mode, which the child can more readily understand (e.g., class field trip, open house, swimming lessons, etc.).
- Give written directions/cues whenever possible.
- Use color-coded folders to match academic books.
- Use an assignment notebook consistently.
- Worksheets may need to be reorganized. Modifications could include fewer problems per sheet; larger, highly visual space for responding and boxes next to each question to be checked when completed.
- Use of an "Assignments to be Completed" folder as well as a "Completed Assignments" folder, is also recommended.
In Between Classes

Lunch and Recess

For most children some parts of the school day are easier to negotiate than others. This includes recess, lunch and the ride to and from school. For students with Asperger Syndrome this is where sensory overload, social confusion, and anxiety can be overwhelming (Fullerton, Stratton, Cayne & Gray, 1996). This can be the perfect setting for a tantrum, meltdown, or other inappropriate behavior. If the child indicates that any of these activities are too much for him/her, or the teacher has observed their behavior before, during, and after, it is suggested that other alternatives are put into place.

Intervention Strategies:

Quiet free time inside spent reading, playing, or working on a project can take the place of recess and lunch.

Physical Education Class

Children with Asperger Syndrome may find that physical education i.e. (P.E. class), is where their weaknesses rather than their strengths are showcased (Bashe & Kirby, 2001).

Characteristics:

It is estimated that 50%-90% of students with Asperger Syndrome have problems with motor-coordination (“University of Brighton,” 2008). This can include the areas of:

- Ball skills such as catching and throwing.
- Balance, manual dexterity, rapid movements, rhythm and imitation of movements.
Another challenging aspect of a P.E. class is the social aspect.

- Have sensory difficulties in gym or on a field.
- Is highly distractible or inattentive during team play.
- Has aversion to activities in which physical contact is routine or may occur.
- Has aversion to gym class and physical activity.

Physical education usually has its own rules so adapted physical education can help address many of these issues. The following lists some solutions that may help the student with the difficulties of physical education.

**Intervention Strategies:**

- SODA, stop(S), observe (O), deliberate (D), and act (A) training.
- Imitating motor movements is difficult, especially when they are presented mirror-like style (teacher facing student to teach throwing). A more effective way may be to stand behind the student and use twenty consecutive daily throws with hand-over-hand prompting, gradually diminishing the prompting to independence.
- Become familiar with adapted physical education techniques.
- Provide opportunities for individuals as opposed to team activities.
- Focus on activities that have no winners or losers and that are cooperative and without leaders.
- Provide opportunity for student to exercise individually or with a partner or smaller group instead of the full class.
Bullying

Often the child with Asperger Syndrome makes the perfect victim for bullying. Despite their high verbal skills children with Asperger Syndrome frequently have motor skills that lag significantly behind those of their age peers, and classmates may tease them as being clumsy or dorky (Webb, Amend, Webb, Goerss, Beljan & Olenchak 2005).

Teachers should explain that bullying can include teasing, intimidation, and threats as well as assault. Social stories (educational tales of common social experiences) can help explain what constitutes intimidation and unpleasant teasing (McGrath, 2008). Teasing is especially problematic for Asperger’s children, as they may not differentiate between friendly banter and hurtful teasing.

Asperger’s children need to understand that all forms of bullying are wrong, not just assault and physical intimidation. A friend threatening not to be friends in order to manipulate an Asperger Syndrome child into doing something wrong or illegal is bullying just as much as the playground child who hits and kicks.

Children with Asperger’s syndrome may stay silent about bullying for a number of reasons, including:

- Confusion.
- Not wanting to be seen as tattletales.
- Not wanting to worry parents.
- Shame.
- Thinking no one will believe them.
• Thinking that they somehow deserve bullying.
• Threats and intimidation from the bully.

**Intervention Strategies:**

• Role-playing can also help children identify bullying.
• Scenes from television, movies and video games provide plenty of opportunities to talk about bullying.

Parents and teachers should make it quite clear that there is never a good reason to bully, and that the correct and safest thing to do is to tell an adult the child trusts – whether a parent, teacher or counselor. The traditional belief that ignoring bullying makes bullies stop is simply not true. Many schools now have no tolerance policies for bullying, but those policies can only be enforced if teachers and school staff know bullying is occurring.

**The School-Home Connection**

Communication is priority between the parents and the teacher. Bashe and Kirby (2001), recommend that it is helpful if the teacher keeps a notebook, a checklist or some other written update of the child’s school day. Checklists are preferred because of the limited time the teacher has as they have other children to teach also. It is impossible to track every behavior of the day, so it is important to collect and analyze meaningful data. Here are some guidelines to follow:

1. Be specific: Target behaviors such as tantrums, pushing in line, greeting teacher and peers each morning, hitting other students, turning in homework, all of
Asperger Syndrome Students 36

which a teacher can observe and count, not states of mind, moods, and attitudes.

2. Define the terms that are being used. It is important that the parent knows exactly what you are saying. For example, the word tantrum. What defines the word tantrum? The child screaming at other children, raising their voice, hitting objects or people, getting out of the chair, or falling to the floor, these all could be parts to tantrum behavior.

3. Pinpoint specific times to observe the behavior. It is impossible to follow the child every moment of the day to observe their behavior. Watch for the transition periods. When they first enter the classroom for the first few minutes and how they greet their fellow classmates.

4. Choose the data that is really needed. If the child is learning to greet others this would be a good observation for about one to two weeks to see if the students has mastered the skill. Once mastered, this observation can be shortened to about once or twice a week.

5. What to do with this information? Make a spreadsheet manually or through using computer software such as Excel. Based on the observations that are collected, the teacher can see that tantrums are worse on Mondays than any of the other days. This might suggest that the teacher might need to look at ways to better transition this student back into the school routine.
Tantrums, Rage and Meltdowns

Children with Asperger Syndrome share a common trait – meltdown – otherwise known as a tantrum, a “birko”, a “go-off” or “spack-attack” (Frances, 2004). Meltdown in Asperger children is triggered by a response to their environment. These responses can be caused by avoidance desire, anxiety or sensory overload. Triggers need to be recognized and identified. An adults’ behavior can influence a meltdown’s duration, so always check your response first. The following is a list of steps.

1. Remain calm
2. Use soft voice, but convey firmness
3. Slow down
4. Prioritize safety
5. Re-establish self-control in the child, then deal with the issue

While you use various intervention techniques in response to a crisis, your reaction must remain consistent (Sohn & Grayson, 2005).

Summary

According to the research and the information found in texts, journals, manuals and web sites, all have stressed that there needs to be more education toward educators who will be teaching these type of students. Most teachers in the mainstream classroom have little or no prior training about how to effectively teach a child with Asperger Syndrome. The primary focus is to provide teachers with the many different
characteristics and implications for instruction and to outline the strategies for instruction and classroom management.

Although effective interventions can help people with Asperger Syndrome learn to respond more appropriately, there is no way to change what the world “means” for them. When the words “treatment” and “intervention” are used it is being referred to of methods of addressing issues, not affecting a “cure” (Lynn & Lynn, 2007).

As most children with Asperger Syndrome have a literal understanding of language, their teachers' style of communication is very important. Effective instructions for such students need to be brief, concise, and concrete. Time should be allocated for the student to process the language of the instruction and then proceed with the task. Complicated instructions or concepts should be broken into manageable steps. The teacher should strive to be consistent and clear and, thereby, limit opportunities for inappropriate responses.

SECTION III: Conclusion

Students with Asperger Syndrome present a particular challenge to their parents, teachers, and peers. Understanding the common characteristics will help teachers to understand general needs associated with Asperger Syndrome, but there is a need to combine this information with knowledge of the specific interests, abilities, and personality of each student. Although individuals with Asperger Syndrome share some common features, no two individuals are the same. As each child develops the patterns and the difficulties they have will change.
It is, therefore, important for teachers to be aware of the unique characteristics as well as the special interest areas of children with Asperger Syndrome. Recent studies have shown there is a lack of training and education that takes place for teachers who will be teaching these types of students. This means as educators, there must be a radical shift in learning and teaching. Through education and training teachers can learn how to cope with the challenges and symptoms of having Asperger Syndrome children in their classrooms. Teachers can not shy away from special interest areas or characteristics that will make them feel uncomfortable or are unfamiliar with (Winter-Messiers, 2007). Understanding and knowing the special interest areas and characteristics will help teachers play a vital role in developing adaptive and effective strategies needed for these students to participate and enjoy the experience in the school setting.
References


