Asperger's Syndrome in General Elementary Education: Problems, Resources, and Improvement
for All

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Abstract:

General education placement is believed to be the best option for educating students with Asperger's syndrome (AS)—or High Functioning Autism—but has been debated within the fields of education and psychology. This thesis starts with a brief history of AS and common comorbidities, then addresses the mandates and policies that govern special education, which leads to the main research about successful practices for students with AS both within a general education classroom and those from specialty schools. This thesis examines the practices created for students with AS and determine whether those practices can be extrapolated to education in general. Through an extensive literature review of both psychological studies and educational theories and practices, I determined that strategies designed for students with AS can and should be applied to all mainstream classrooms. Students with AS have a lot to offer to educators and by capitalizing on their strengths and common strategies to help them, all education can be improved. This research shows us that social skills training, and well-designed classrooms can be helpful for all students, regardless of whether they have a learning disability. Implications for future teacher education and best practices to include in all classrooms are discussed.

Introduction

Research and public press articles on Autism Spectrum Disorders have flooded the media in the last twenty years. However, particular subsets of Autism Spectrum Disorders (ASD)—for example, High Functioning Autism, previously known as Asperger's syndrome—have received less attention. Furthermore, only within the last ten years, the media has become fascinated with Asperger's syndrome. Through television shows like *Parenthood*—which features a child with Asperger's—to interviews with animal scientist, Temple Grandin, and popular articles detailing how people with ASDs can still function well in an adult society, popular media have brought attention to the disorder. It has been said, "while the autistic child lives in a world of his own, the child with Asperger's lives in his world but within ours" (Safran, 2002). Most people wonder how individuals with these kinds of challenges are able to function in the real world after they leave school, but often people overlook the struggles that those with disorders face as children in our public school system today.

This project explores the struggles of children with Asperger's syndrome and the challenges they face as they try to navigate our public education system. I will examine different strategies for educating children with High Functioning Autism that have been used in our current school system. More specifically, I will look at the various definitions of Asperger's syndrome and the common comorbidities with other Diagnostic Statistics Manual (DSM) disorders, and discuss how students are diagnosed. Then, I will analyze the policies and laws that mandate how school administrations support these students. Next, I will examine the different aspects of varying practices from specialty schools to mainstream classroom interventions. Additionally, I will look outside the classroom to identify support available to families impacted by these practices, as well as ways in which the school administrations can be

improved to better support these students and their families. I will explore the different components involved in these programs and propose a way in which all elementary schools can adopt some of these practices to better help all students.

This project uses the term Asperger's Syndrome instead of High Functioning Autism because most of the research has been done on this disorder under this name and its accompanying symptomatology. Although the diagnosis of AS has since been removed from the DSM-5, much of the research in this field has been done under this name. The reason for the transition from AS to the umbrella term of Autism Spectrum Disorders was because researchers found that the separate diagnoses were inconsistently applied across different clinicians and, therefore should all be categorized under the umbrella ASD.

History

In 1943, researcher Leo Kanner "described a disorder similar to, but distinct from childhood schizophrenia" (Sanders, 2009). This disorder later came to be called autism and was first included in the third version of the DSM in 1980. Around the same time, Austrian physician, Hans Asperger, first identified specific symptoms in children that would later be called Asperger's syndrome. His seminal work "accentuated the social peculiarities and social isolation of the children he studied. Although he observed that these individuals have many characteristics in common with autism, AS children generally had average cognitive and language development" (Myles & Simpson, 2001). Before being officially identified as its own disorder, it was referred to as childhood schizophrenia (Gillberg and & Billstedt, 2000). Due to World War II, English-speaking psychologists did not recognize the syndrome until after Lorna Wing's paper brought it to America in 1981. Asperger's syndrome, however, did not receive its

own place in the Diagnostic and Statistical Manual until the DMS-IV was published in 1994 (Henderson, 2001). Historically believed to be an extremely rare disorder, recent reports from the Centers for Disease Control and Prevention (2012) estimate that an autism spectrum disorder (including AS) occurs in 1 in 88 births in the United States (Sansosti & Sansosti, 2012). However, according to the American Psychological Association, "definitive data regarding the prevalence of Asperger's Syndrome are lacking" (American Psychological Association, 2000). Currently, it is believed to occur two to seven times more in males than in females, although research is inconclusive as to why this pattern exists (Ehlers & Gillberg, 1993).

Definitions

Asperger's syndrome is a Pervasive Developmental Disorder (PDD)—referring to a group of disorders characterized by "delays in the development of socializations and communication skills" ("NINDS Pervasive Developmental Disorders Information Page," 2014). There are various definitions of Asperger's syndrome that have become known through popular media. The Diagnostic and Statistics Manual (DSM) details a list of symptoms common in individuals with AS. For most of the clinical studies in this project, the researchers diagnosed the participants based off the DSM-IV-TR criteria. However, for many of the practical education applications of the research findings, some of the students were not clinically diagnosed; most of them, however, showed many of the symptoms of AS, but their disorder resembled more of the popularized AS definitions from Autism Speaks.

The DSM-IV-TR criteria are as follows:

(I) Qualitative impairment in social interaction, as manifested by at least two of the following:

(A) marked impairments in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body posture, and gestures to regulate social interaction

(B) failure to develop peer relationships appropriate to developmental level

(C) a lack of spontaneous seeking to share enjoyment, interest or achievements with other people, (e.g.. by a lack of showing, bringing, or pointing out objects of interest to other people)

(D) lack of social or emotional reciprocity

(II) Restricted repetitive & stereotyped patterns of behavior, interests and activities, as manifested by at least one of the following:

(A) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus

(B) apparently inflexible adherence to specific, nonfunctional routines or rituals

(C) stereotyped and repetitive motor mannerisms (e.g. hand or finger flapping or twisting, or complex whole-body movements)

(D) persistent preoccupation with parts of objects

(III) The disturbance causes clinically significant impairments in social, occupational, or other important areas of functioning.

(IV) There is no clinically significant general delay in language (E.G. single words used by age 2 years, communicative phrases used by age 3 years)

(V) There is no clinically significant delay in cognitive development or in the

development of age-appropriate self help skills, adaptive behavior (other than in

social interaction) and curiosity about the environment in childhood.

(VI) Criteria are not met for another specific Pervasive Developmental Disorder

or Schizophrenia" (American Psychological Association, 1994).

The Autism Speaks definition is as follows:

Asperger's syndrome is an autism spectrum disorder (ASD) considered to be on

the "high functioning" end of the spectrum. Affected children and adults have

difficulty with social interactions and exhibit a restricted range of interests and/or

repetitive behaviors. Motor development may be delayed, leading to clumsiness

or uncoordinated motor movements. Compared with those affected by other

forms of ASD, however, those with Asperger syndrome do not have significant

delays or difficulties in language or cognitive development. Some even

demonstrate precocious vocabulary – often in a highly specialized field of

interest. ("Asperger Syndrome," 2013)

While both of these definitions work to operationalize the same disorder, they emphasize

different aspects of the syndrome. The DSM emphasizes the particular actions of a person

diagnosed with Asperger's syndrome. Conversely, the Autism Speaks definition treats the person

and the disorder as a complete entity. Both of these definitions were used in the research

referenced in my study. The clinical psychological articles classified individuals as having AS

based on the DSM-IV criteria while many of the education-based articles worked off the

Individuals with Disabilities Education Act (IDEA) definition, which is very similar to the

Autism Speaks definition.

Often times psychologists treat individuals with AS through Cognitive Behavioral Therapy (CBT)—a personalized therapy in which they learn to regulate their emotions, develop impulse control, and improve their behavior (Sze & Wood, 2008). CBT focuses on the cognitions behind an individuals actions and how to manage the impulses. Many school psychologists, while clinically trained, focus on how to help the students specifically in school, focusing on how to help them succeed academically. Although they too address the cognitions behind certain behaviors, they view their strategies through an education lens.

Comorbid disorders

Asperger's syndrome is quite often diagnosed in conjunction with other psychological disorders. This makes it difficult to research in a laboratory setting. Without being able to control for extraneous factors, it becomes difficult to separate out the Asperger's symptoms from the symptoms of comorbid disorders. Common disorders that individuals with Asperger's may experience are: Depression, Bipolar Disorder (BD), Tourette syndrome (TS), Anxiety Disorders, Obsessive Compulsive Disorder (OCD), Attention Deficit Hyperactivity Disorder (ADHD), and Aggression.

Internalizing disorders such as depression, bipolar disorder, and anxiety may also present themselves along with Asperger's syndrome. Currently the relationship between AS and internalizing disorders has been identified as a bidirectional one, meaning both the AS and the other disorders affect each other equally. For instance, there is a high prevalence of AS children with anxiety disorders, but there are also large numbers of children with anxiety disorders who have ASD symptoms. Children with AS typically have more anxiety than normally developing children, particularly in the social arena. Additionally, an association between OCD and AS has

been identified. However, it is difficult to differentiate whether the OCD symptoms are from a comorbid OCD diagnosis or another characteristic of AS (Mazzone, Ruta, & Reale, 2012), since one of the common symptoms of AS is typical ritualistic and repetitive behaviors.

On the other hand, AS is also often associated with other externalizing disorders like ADHD[1], TS, and other disruptive behaviors. According to criminal records, there is an overrepresentation of individuals with AS in the criminal population as compared to the general population. It has been "strongly suggested by some studies showing an increased risk for crimes with AS, that may be attributable to either a lack of insight typical of AS, and/or a co-occurring psychiatric disorders" (Mazzone et al., 2012). Furthermore, there have been documented relations between AS and Tic or Tourette syndrome. Historically, people have recognized the association between tics and AS, but only recently were studies conducted to examine the relationship between AS and TS. In a study by Baron-Cohen et al. (1999), it was discovered that as many as "8% [of young people with autism] were found to have comorbid Tourette syndrome" (Baron-Cohen, Mortimore, Moriarty, Izaguirre, & Robertson, 1999).

While there are some documented disorders that include disruptive behaviors that are associated with AS, 22.5% of children with AS also show aggressive behaviors (Hartley, Sikora, & McCoy, 2008). Although children with AS are not prone to aggression and violence, "the social deficits associated with the disability often create frustrations and difficulties which result in aggressive behavior" (Simpson & Myles, 1998). Since students with AS can have trouble conveying their emotions, some of their comments may come off as rude to their classmates

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[1] One of the more controversial comorbidities in students with AS is Attention Deficit Hyperactivity Disorder (ADHD), and is mainly due to its diagnostic difficulties. However, according to DSM-IV, co-diagnosis of ADHD and AS cannot be done. Clinicians say it is difficult to distinguish the ADHD symptoms from the AS symptoms sometimes. Also, there are many overlaps between symptoms of ADHD and AS within the DSM-IV criteria.

because they lack "an understanding of the appropriate social customs and practices" (Simpson & Myles, 1998). Sometimes, when students with AS find themselves in a crowded hallway or classroom, they may become agitated or angered when they feel like others are invading their private space. Often, children with AS keep their emotions bottled up inside, and eventually their silent discomfort and agitation may escalate to a point of crisis.

There have been many documented cases of existing comorbidity in individuals with AS, but there are some difficulties in performing a psychiatric diagnostic evaluation with these individuals. Since the individuals often have difficulties expressing their emotions, clinicians interview their family members rather than the AS participants or evaluate them solely through observation. Moreover, the symptoms of other disorders may be masked by those of AS, or the combination of the two disorders morphs the representation of symptoms from other disorders, making it difficult to diagnose (Mazzone et al., 2012). This also makes AS difficult to treat because clinicians are not sure what to treat first. Specifically, when the child is in school, teachers become focused on the disorder that they understand, which may not be the underlying disorder that should be managed first. Many times, teachers are underprepared in their education of specific psychological disorders that their students have and gravitate toward known symptoms that they understand or popularized representations of individuals with the disorder.

Policies and mandates

In order to understand the special education process in which schools are bound, one first needs to understand the policies and mandates that govern the system. Section 504 of the Rehabilitation Act of 1973 "banned recipients of federal funds from discriminating against people with disabilities" (Aron & Loprest, 2012). This law entitles students with disabilities to a

public education that is comparable to those provided to students without disabilities. Although Section 504 helped to establish greater access to education for those with disabilities, it was not until two years later that Congress passed a more proactive law protecting the educational rights of students.

In 1975, Congress enacted the Education for All Handicapped Children (EHA) Act in order to support states in protecting the rights, and meeting the individual needs of all students with disabilities. Later revised in 1990, the EHA, renamed the Individuals with Disabilities Education Act (IDEA), was signed into law to ensure equal opportunity to special education students. Although Asperger's syndrome is not a specific category identified under the IDEA, it falls under jurisdiction of the autism category. The IDEA defines autism as:

> "a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences" (34 C.F.R. §300.8(c)(1)(i)).

Although Congress has revisited the original IDEA many times, and has provided many revisions, the overall point remains the same. The IDEA mandates that students be granted a free and appropriate public education and need to be educated in the least restrictive environment possible—meaning they are to remain in a mainstream classroom for the majority of the day, and the amount of time outside the classroom should be limited. As Lukasik argues in her paper, "although Congress has expressed appropriate concern about improper over-diagnosis of children with disabilities, it has never resolved those concerns through eligibility restrictions

excluding for the Act children with disabilities affecting school performance" (Lukasik, 2011).

She goes on to argue that amendments to the IDEA opened the door to eligibility for some

children without any diagnoses at all. There is no denying the fact that under the IDEA, the

number of students receiving accommodations has increased and the IDEA has become one of

the largest federal K-12 programs (Lukasik, 2011). Some people argue that the IDEA has led to

an over identification of students with AS, however this has led to increased research in the field

in order to minimize the over identification. Researchers are developing better testing

instruments to diagnose AS, but are running into challenges because the symptoms of AS vary

from person to person.

   While the EHA became a law in 1975, it was not until 1990 that autism became a

qualified disability under the IDEA and soon after that, Asperger's syndrome became a disorder

included in the DSM. After this addition, diagnosis of AS initially increased, but it has recently

leveled to approximately 5% of the total school population (Lukasik, 2011). Asperger's

syndrome falls into the category of Autism within the IDEA and thus students are evaluated with

this in mind. Although a student may be diagnosed as having AS, that does not necessarily

guarantee that they will be granted accommodations in school. According to the IDEA, students

need to be "disabled enough" that their disability impedes their educational performance and that

they need educational services in order to succeed. In other words, students are expected to fail

first before becoming eligible for additional services. Even in 1985, " Graden, Casey and

Christenson (1985) pointed out that current funding patterns will not allow larger number of

students to be served in special education" (Graden, 1985). By serving more students in the least

restrictive environment, it also leads to the least cost resource allocation.

After the reauthorization of the IDEA in 2004, the law allowed a new approach, Response to Intervention (RTI), to take effect. RTI mandates that schools identify struggling students early in their school career and provide research-based reading instruction through a tiered structure as part of the core curriculum. In theory, RTI should reach a greater population of students who would not otherwise qualify for assistance under IDEA or Section 504. However, many parents and teachers have become concerned that school districts can use RTI to delay and limit access to full-blown special education services (Aron & Loprest, 2012). Since RTI often takes place over a few years, and students are shuffling from one teacher to another every year, it delays full evaluations of the students because professionals are waiting for RTI to successfully "solve" the issues presented.

Under the IDEA, students who have been diagnosed with Asperger's syndrome and have qualified as being "disabled enough" are then granted accommodations that the school is required to fulfill. Once a trained group of experts has evaluated the individual case and decided that the student qualifies for accommodations under the IDEA, they go through another process of obtaining an Individualized Education Program (IEP). However, since it is difficult to detect AS in younger students due to the normal cognitive functioning, many students with AS do not benefit from these accommodations until the later part of their elementary years (Autism Speaks, 2013). Then, the school administrators and the team of experts meet with the parents of the student, and sometimes the student themselves, to develop a plan that will be most successful for that individual. Most of the accommodations in an IEP for a student with AS deal with social skills instructions and giving clear directives. Within an IEP, the goals, special needs, and benchmarks are laid out in order to better measure the student's success in school and with the

assistance of their IEP. Once students have received an IEP from their school, the school is

required to make the necessary accommodations that are requested.

Classroom interventions

With the increasing number of students diagnosed with AS, the question arises of: how

do we best educate them? Recent U.S. Department of Education statistics (2010) show that there

has been a "35-fold increase in the number of students receiving special education under the

autism category" (Sansosti & Sansosti, 2012) of the IDEA. Additionally, it is still possible that

the number of students served under the autism category underestimates the actual frequency of

AS students who need supportive education. More data from the U.S. Department of Education

reveals that "participation of students with ASDs (statistics specifically related to AS currently

are not available) in the GE [General Education] curriculum for more than 80% of the day

increased from 9% in 1992-1993 to 31% in 2005-2006, representing an increase of 244%" and

these numbers are still growing today in our inclusion classrooms (Sansosti & Sansosti, 2012).

This leads to the discussion about the inclusive[2] model of education in which all types of

students, including those with special education needs are included in a general education

classroom.

One way to analyze these data is to look at the reasons why a student is placed or not

placed in an inclusion classroom. The decisions made about including students with AS requires

the consideration of multiple complex factors. Some of these factors include evaluating the

"individual student needs and educational goals, available supports and best-practice approaches

to instruction, and the potential impact of introducing a student with significant instructional

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[2] The terms inclusion, mainstream, and general education classrooms will be used
interchangeably and mean essentially the same thing.

and/or behavioral support needs into a GE classroom" (Sansosti & Sansosti, 2012). Sansosti and Sansosti conducted interviews with 16 educators who had varying amounts of exposure on decisions around inclusion and asked them how they decided whether a child with AS should be placed into a mainstream classroom. The study included principals, GE teachers, special education teachers, and school psychologists. Results from their study found that, overwhelmingly, these educators felt that most students with AS benefitted from being placed in an inclusion classroom, but the decision should ultimately be made on a case-by-case basis (Sansosti & Sansosti, 2010). Upon further contemplation of the question, the educators identified the teachers' limited understanding of AS as the single most significant barrier to successful inclusion. In general, the participants stated that teachers receive an inadequate amount of training around AS. When there is little support for the GE teacher, they turn to media portrayals of individuals with AS in order to prepare themselves, leading to a stereotypical or limited definition of the disorder. Additionally, the availability of resources and personnel affects the amount of one-on-one attention that can be devoted to the student with AS. Since many GE teachers do not fully understand what AS is and how they can best support their students, they are not fully prepared to advocate for their students' needs; they are unaware of the services that are available to them and their students.

Other specific factors that the educators identified as impacting the placement decision included the students' behavioral functioning, more specifically, their emotional control and independence in classroom activities. Before deciding if a student with AS would benefit from being placed in an inclusion classroom, educators looked to see if the inclusion of this student was going to be more detrimental to the other students in the class. Often times, students with AS can be distracting or disruptive to the greater classroom environment. Generally speaking,

inclusion is "easier to begin in the primary grades when the skill gap between the students with AS and her or his GE peers is likely to be smaller" (Sansosti & Sansosti, 2012).

Brenda Myles and Richard Simpson (2001) discuss the types of difficulties that students with AS face in a general classroom. For instance, students with AS may become upset if they feel others are invading their space or when they are in uncomfortable situations. Since these students do not reveal their stress through tone of voice or overt agitation, they may escalate to a point of crisis much quicker than others; other's unawareness of their excitement or discomfort, in conjunction with their inability to predict, control, and manage these situations, leads to what seems like abrupt changes in mood and behavior (Myles & Simpson, 2001). Consequentially, the students with AS become easy targets for students who are prone to teasing and bullying other students.

Students with AS may also struggle academically in school. They often have difficulty comprehending abstract materials (i.e. metaphors and idioms), understanding the meaning behind inferences, and applying skills and knowledge to novel problems. In order to help the student with AS succeed academically, Myles and Simpson (2001) propose some effective strategies. One strategy is to "prime" the student for changes and new information that will be coming their way. These researchers suggest that the "actual materials that will be used in a lesson are shown to the student the day, the evening, or even the morning before the activity is to take place" (Myles & Simpson, 2001). Other strategies include providing graphic organizers and handouts that help students attend to the most important information and gives them the information they will be responsible for understanding on future tests and assignments. For those students with AS who have IQs in the superior and very superior range, the authors suggest that enrichment activities will work well to keep the student focused and on task. These

enrichment activities often consist of having the student learn the same content as the rest of the class, but in much more depth and detail than their peers.

In her article, Joan S. Safran (2002) details a comprehensive list of what teachers need to know about their students with Asperger's and how to better assist them in their classroom. She reminds readers that with increasing emphasis being placed on instructional methods that favor social interaction, "the child with poor interpersonal skills and inability to read social cues will continuously test the patience of teachers and peers and be admitted to groups last" (Safran, 2002). She advocates for one-to-one behavioral aids that serve as social interpreters in classrooms, but also acknowledges that this arrangement may not work for every child, and the schools may not have the funding to support this plan. While most students with AS will work with a behavioral aid, either at home or provided by the school, teachers need to be informed of ways in which they can help their students. Consequently, Safran argues that there are some simple tips that teachers can follow in order to help their students with Asperger's succeed in a general classroom.

Many of these tips involve the general design of the classroom and where to locate the student with Asperger's in order to best help him/her. By carefully structuring seating arrangements and group work, teachers can move students away from known bullies and seat them near other students who might serve as a social translator for the student with AS. During loud and chaotic times in the classroom, students with AS may become stressed and anxious, therefore, providing a safe haven, or quiet, alternative place for the student to be, allows them to retain control over the hectic situation. If there is not a quiet place within the classroom, Safran suggests allowing students to go to the library or office in order to alleviate their stress. Clearly stating and displaying classroom rules or agreements, and referring to them often, will help a

student with AS understand what is expected of them and how to succeed in the classroom. Also, informing all students that the classroom is a safe place where bullying does not exist and all students' ideas are valued equally, helps set the tone for a successful year. Often times changes in schedule and routine will throw off a student with AS, so informing students of changes well in advance will help them prepare for the modifications. With the new expansion of technology into many classrooms, teachers are better prepared to differentiate instruction for their students. Since students with AS often respond well to visuals, graphics, and models, computers allow students to get these necessary accommodations. Other suggestions that Safran offers are for teachers to contact others who are struggling through the same difficulties in their classrooms. Finally, Safran reminds teachers not to take the outbursts and frustration personally, and that modeling warmth and acceptance will encourage peers to do the same (Safran, 2002).

Other researchers suggest additional strategies including providing visual representations of social situations. Since many children with AS have strong visual systems, providing with a picture or diagram of a social situation helps them better understand how to act during that situation. Similarly, social autopsies, developed by Richard LaVoie, provide for the "examination and inspection of a social error to discover the cause of the error, determine the damage, and prevent it from happening again" (Myles & Simpson, 2001). In this strategy, the student with AS meets with an educator to discuss the scenario and develop a plan to ensure the error does not happen again. Much like psychology's social metacognitive strategies, social autopsies allow the students to increase their understanding of self and enhance their natural development (Rosenthal-Malek, 1998). By using self interrogation strategies, students ask themselves, "how do I feel" and "how does my friend feel" in order to help them solve social interaction problems. In terms of interventions centered around improving behavior in

classrooms, Myles and Simpson argue that giving students with AS the opportunity to participate in constructing and implementing their own management systems seems to work best. When students are able to monitor their own behavior and deliver self-reinforcement, the locus of behavior control is shifted from an external source, like the teacher, to the student (Myles & Simpson, 2001).

Although there are many different ways for general education teachers to support students with AS, not all students are going to be successful in that environment. Part of the definition of AS includes no cognitive impairment, and often times an average to above average intelligence, so many students tend to thrive academically in a general classroom in which they are pushed just as hard as the rest of the students. Also, fully inclusive classrooms are thought to be the least restrictive environment for students with AS and allow them to improve their social skills more frequently. While in an inclusive classroom, students with AS learn to work collaboratively with group members and interact with their general education peers.

However, one area that public education schools are not as successful is prevention of bullying. In a mainstream classroom, students with AS may be viewed as weird and very emotional as compared to the rest of the students. Frequently, this results in other students bullying the student with AS and, consequently, making that student feel like an outsider. According to Sofronoff, Dark, and Stone (2011), Students with AS who have limited understanding of social intelligence often have high levels of social vulnerability, therefore, making these students easier targets for bullies. Additionally, "social vulnerability was found to be strongly and positively correlated with bulling in children with AS" (Sofronoff, Dark, & Stone, 2011). Many researchers have examined the long-term effects of bullying on students with ASDs (Chen & Schwartz, 2012) and have found that, while many students with AS may not

understand when they are being bullied and when they are not, the overarching effects are devastating.

Social Support

Students with AS often do not acquire social skills through modeling or incidental learning. In other words, they often "fail to orient to naturally occurring stimuli" (Dawson et al., 1998), making it critical to employ strategies that directly reinforce these skills. As stated earlier, students with AS are typically very strong in their visual processing abilities, so an effective way for students to learn about appropriate social responses to stimuli is through visual representations. Other techniques that tend to be effective include peer-mediated approaches in which a student without disabilities serves as a social interpreter for the target student. Although this method tends to work well, combining peer-mediated interventions with adult-mediated interventions has proven to be the most effective (Laushey et al., 2009). When adults mediate conversations between small groups of students, the student with AS is able to learn the appropriate responses and model the behaviors of their peers. Additionally, when this method is paired with a visual method of instruction the percentages of age-appropriate interactions with peers increases further.

Additionally, the interactions students with AS have on the playground are just as important to monitor as the classroom interactions. In a study by Lynn Koegel and colleagues (2012), the researchers assessed the results of teaching play initiation strategies to elementary school children with AS. The findings from the study suggest that students with AS benefit from specific initiation strategies related to starting, joining, continuing, ending, or switching playground games, which led to positive gains in peer social engagement (Koegel, Kuriakose,

Singh, & Koegel, 2012). Additionally, since these initiation strategies were observed in the absence of an interventionist, it suggests that the students gained more independence; they did not require the assistance of an interventionist in order to initiate play activities. The results from this study are particularly important because the majority of students with AS do not have consistent supervision at recess and this intervention is a low-investment and high-outcome strategy.

Other researchers looked at the factors that correlate to children with AS building and maintaining friendships (Bauminger & Shulman, 2003). Friendship is a particularly advantageous social framework for students in elementary school. It provides:

"one-on-one social experience with a familiar peer whose benefits include continuity over time; greater predictability owing to the fact that children learn to know one another's interests and to develop shared play routines; and a more ongoing, secure, and structured social experience in which to practice social activities, feelings, and skills such as cooperation, social initiation, play skills, taking another person's perspective, and sharing" (Bauminger & Shulman, 2003).

Proper psychological development includes creating and maintaining friendships, and without this, students are at a disadvantage. The main finding in this study shows that parental support is key to both forming and maintaining friendships for students with AS. As compared to the mothers of typically developing children, the mothers of children with AS emphasized their own support in the creation of most of their child's friendships (Bauminger & Shulman, 2003). However, it is reassuring that most of the children with AS do have at least one mutual friendship and that friendship helps the child develop better social skills.

For those students who still require additional help outside of the assistance the schools provide, one-to-one behavioral aides can be useful. These aides can assist students with completing specific contracts that include demonstrating specific expected behaviors and analyzing the appropriateness of the task. For example, the aide can help the student assess if the length of time for the given task/behavior is expecting too much of the student. Other behaviors that can easily be demonstrated and then "role played" include: ways to monitor enthusiasm, leading a small group, ways to respond to challenging situations, responsibilities, reactions to anger, failure, frustration, etc. Also, aides can provide and monitor opportunities for the students to experience positive reinforcement when being a leader, classroom and social responsibilities, academic successes, with parental/family/guardian reinforcement and accolades (McCarney, 2014).

School Community Resources

As a general education teacher, one is in charge of approximately 25-30 students and is required to help each of them hit the necessary benchmarks that the school districts, states, and federal government mandate. So, when thinking about having one student in your classroom, or multiple students who require these additional services and accommodations, it can be overwhelming. However, there are many resources for teachers to draw upon to gain both support and advice for how to help these students.

In a school community, there are people in the office who are available to assist when a classroom just requires a second adult. There are also resource personnel like school psychologists, occupational therapists, and paraprofessionals who are trained to help students who need more assistance, like students with AS. Many times, a school psychologist has

received extensive training around best practices for helping all students with disabilities and are a great resource for either sitting in on a few classes with the general teacher and providing additional strategies for them to use, or meeting one-on-one with the students and parents to discuss progress that the student is making. Occupational therapists also may be available to help with students who are fidgeting in class and would benefit from some body control strategies that they can use in the classroom. Additionally, some schools have the use of paraprofessionals who become another adult in the classroom who can help oversee the everyday goings on of the room. Some paraprofessionals are assigned to a specific student in the class and this adult follows them around throughout the day to assist them with everyday occurrences, while others may be available just as an additional body in the classroom.

Another great resource is encouraging parents of the students involved. Many times the parent of a student with AS will be eager to see what their child is doing in the classroom and be willing to help in any way they can. This is a great way to include them in your classroom community and have another team member on your side. Either way one looks at it, getting extra assistance in the classroom is a helpful tool to succeeding with students who have AS in your classroom. It is also of significant value to subtly teach the parents the methods that are successful in the classroom that could be easily replicated in the home or outside school environments so as to maintain consistency between the student's environments.

Specialty schools

To combat the idea of children "getting lost" in the general education systems, parents have found schools that are specially designed for students with Autism Spectrum Disorders, and some designed to specifically address those with Asperger's syndrome. The League School of

Greater Boston has been one of the leading educators of students with ASD for over 40 years.

They also have one of the most progressive Asperger's schools in the country. Their website

details the program and states that "through extensive collaboration with formal and informal

assessments, each student is provided accommodations that are unique to their own needs"

("Boston Autism Schools, Boston Asperger's Schools | League School of Greater Boston -

Asperger's Programs," 2015). One aspect of their programs that they attribute much of their

success to are their vocational internships in which students can take non-traditional electives

like cooking or social pragmatics. In addition to teaching full content area curriculum, the

Asperger's Program involves community trips in which the classes venture outside the school

and learn how to navigate frequently visited establishments in their community. The students'

progress is measured much the same as in a regular academic setting; through these excursions,

students are expected to improve their social skills, which are just as important as academics,

according to the program.

The Ivymount School in Rockville, Maryland is another notable autism specialty school.

Named twice by the US Department of Education as a Blue Ribbon School of Excellence, the

Ivymount School's Model Asperger's Elementary Program (MAP) offers "small structured

learning environments incorporating academic and social skills programming to meet a student's

individual learning needs and prepare him/her to transition to a less restrictive environment"

("The Model Asperger Program," 2006). Their website identifies their evidence-based practice

as including small class sizes, constantly integrating social skills learning, creative and

challenging academic instruction, and positive research-based practices for emotional regulation

and behavior management. The MAP attributes much of its success to their internally-developed

social skills curriculum. After discovering that existing social skills curricula did not adequately

address the diverse needs of their students, the MAP brought together a multidisciplinary "team of teachers, speech/language pathologists, occupational therapists, and social workers" ("The Model Asperger Program," 2006) to develop and constantly revise the curriculum. While many students with AS have difficulties transferring social skills learned in schools to real world situations, the MAP's curriculum requires the students to practice the skills in a variety of settings, from their classroom to the community.

These two programs, while somewhat different, share many ideas. First, both of these programs do not treat the disorder as a problem, but as a part of the student that is special to them. Both of these programs emphasize educating the student academically as well as socially; they highlight the real-world preparation as something that is just as important as the academic education. The social skills education that the students who attend these programs receive is conveyed through both classroom settings and real-world application. By teaching these students how to succeed in life and encouraging them to practice it in a safe environment allows the students to flourish and gives them tangible experiences that they draw upon later in life.

Many students and parents report extreme success from these programs because their students are able to get the specialized help they need in a safe environment. One parent's testimony about her son's time at the Ivymount School is very similar to the countless other accounts:

> "We have seen such progress since our son began at Ivymount! He continues to
> show confidence in replying to questions, making requests, and even telling jokes.
> We believe all of this is the direct result of Ivymount's methodologies, expertise,
> and dedication. In addition, the expert knowledge and enthusiasm of your staff to
> work and train our family have been very helpful in expanding our son's skills at

home and in our community" ("Ivymount Excellence in Special Education,"

2012)

Through special programs like the League School of Boston and the Ivymount School, students learn social skills and real world applications that will help them succeed after their time in school. The researched practices and proven results demonstrate that the programs these schools have to offer are immensely effective. Additionally, the community of teachers and their dedication to improving the lives of these students is quite effective and greatly appreciated by their parents.

While some students may thrive in a school like this, other may not be academically challenged. Most of these schools emphasize the copious amounts of time learning social skills and practicing them in the real world, but some people argue that the students may not be receiving classes with the academic rigor they could otherwise handle. Also, sometimes students who attend specialty schools do not have regular exposure to and interactions with peers who do not have a disorder, leading to a narrower array of friends. This leads to the dilemma that many parents face: should I support my child's academic prowess, or should I help socially prepare them for the world around them? Or, is there a way that I can do both?

Family support

Although it is difficult to find one's way through the public school system in the United States, many advocacy agencies have made it easier for students to get the help they need in school. However, often the support systems of the students and their families need support as well, especially through the decision of where to school their child. While there is no "one size

fits all" solution for students with AS, different family support groups are available to help make the decisions easier.

Initial diagnosis of AS provides a lot of questions for families and many have found it difficult to receive the answers they are seeking in a timely manner. In order to better prepare families for their upcoming battles, doctors, psychologists, and educators have put together informational texts and tips to help parents navigate the road ahead. The National Association of School Psychologists created a fairly comprehensive list of general information that new parents of children with AS will be encountering (Barnhill, 2004). In this document, Gena Barnhill addresses common challenges that parents will face, including social skills, communication skills, and behavioral concerns and then suggests strategies that can help combat the challenges. Other groups, like the Autism/Asperger Network publish guides to navigating the education system with an AS child and tips for getting successful IEPs for children ("Asperger Syndrome Education - Elementary," 2014).

When families go through the initial diagnosis phase, they have many questions about the disorder and what that means for their child in both the long and short run. Many different support groups have been created and are specifically geared toward families who are newly impacted by AS. It is important to note that although it may seem like the family is alone in their struggle, there are many other families who are going through the same process. By utilizing support groups and online databases, families can get in touch with others who are in the same situation. The growing online support group community offers many families some company during this difficult time.

Other websites like "My Aspergers Child" provide parent testimonies about different schooling options as wells as best practices for helping their children succeed outside of school.

These websites are also avenues for parents to share struggles that they have been going through with their children and allow other parents to share their similar struggles and solutions they found helpful. Another wonderful feature of this website is its constant attempt to keep its readers updated on the most recent academic studies as well as popular media articles. They also allow parents the opportunity to share their thoughts and personal experiences with the topics. Additionally, through websites like this, families create a community of support upon which they can draw from in times of need.

In addition to all of the online support that is available for families affected by AS, there are lists of recommended texts that provide other narratives of families in similar situations and suggestions from professionals in the field. The Complete Guide to Asperger's Syndrome by Tony Attwood is known as the definitive handbook for anyone affected by AS. In his book, Dr. Attwood draws on his 25 years of experience working with people who have AS. In a review of this book published by YourLittleProfessor.com they attest that this book is "scholarly and well organized, with quick summaries of the major points at the end of each chapter. He goes over topics such as Theory of Mind, language, emotional expression, friendships, cognitive abilities and school difficulties, and much more" ("The Complete Guide to Asperger's Syndrome," 2014).

Other books such as Temple Grandin's autobiography, The Autistic Brain: Helping Different Kinds of Minds Succeed and John Elder Robinson's Be Different: My Adventures with Asperger's and My Advice for Fellow Aspergians, Misfits, Families, and Teachers detail personal accounts of life with AS and what others should know about people living with AS (Grandin & Panek, 2014; Robison, 2012). Additionally, books like The Curious Incident of the Dog in the Nighttime by Marc Haddon is written in first person by a boy who talks about having

AS and has brought attention to the disorganized thought process of a student with AS through a popular media outlet. There are also many other books that are accounts that parents have written that tell of their struggles with their children's AS as well for people to reference.

Strengths of individuals with Asperger's

While a student with AS may struggle in many social situations and in school, there are certain areas in which they succeed better than other people. Since AS is characterized as having no cognitive delays, many of the individuals with AS have average to above average intelligence. Known for a long time as "little professors", students with AS are highly skilled in particular areas—math, science, music, or art (Autism Speaks, 2013). They often become fixated on a particular concept or subject and delve so far into researching it, that they have an almost encyclopedic knowledge of that item. If someone were to ask a student with AS about the topic they are interested in, the student with AS would be able to give a very thorough explanation and description of it. Moreover, students with AS have strong verbal skills and once they become fixated on a topic, they can talk about it endlessly. However, many students with AS prefer to engage in logical discussions rather than idle conversation. Many times, teachers know what their student with AS is interested in and they are able to harness that knowledge and excitement into their classroom.

Another quality of students with AS that makes them so incredible is their strict attention to detail; this attention to detail can be on anything from a concept in school, to the everyday routine of the class. According to Asperger's specialist, Tony Attwood (2008), a student with AS "may perceive errors that are not apparent to others, giving considerable attention to detail, rather than noticing the 'big picture'" (Attwood, 2008). This attention to detail helps them make

logical decisions that are not based on emotion, but strictly on facts, which can be extremely helpful in many situations. Subsequently they also have excellent rote memory; they are able to recall information on a test or help explain concepts to other students in the class. Since students with AS look at the world in a different way, they can suggest novel analyses of certain situations. Known as independent thinkers, they can apply their thinking and come up with different "big picture" insights.

Many students with AS are known for being honest, albeit, sometimes too brutally honest. They are not worried about what other people think of them so often times they say whatever comes to their mind, regardless of whether it will offend someone or not. There are many scenarios in which this can be detrimental, but there are also situations in which this can be extremely valuable. For example, they can offer authentic commentary and provide different observations that could help their group members more easily solve a problem.

Finally, students with AS don't discriminate based on differences; they treat all people the same regardless of their attitude. Students with AS do not form judgments of their peers, even if they are bullies, and just continue to treat them all the same. Because of this, many students with AS are also extremely good at nonjudgmental listening. While another student is sharing their idea, a student with AS will quietly listen and then give their own feedback. When other students are talking, the student with AS will sit there, not showing any emotion, and just be able to listen to the facts of the person's argument, rather than the feelings presented. Although sometimes the student with AS will interrupt their peer if they have something they want to add, because they don't understand the social rules, they will focus on the facts of the topic and treat all students with the same respect. Students with AS can be very successful in a mainstream classroom, if the teacher is well equipped to capitalize on their strengths.

Areas for Improvement/Recommendations

With the numerous programs currently available for teachers to access, and the countless resources available to the schools, it seems as though teachers are set when it comes to fostering an inclusive classroom. The National Autism Center created a 245-page manual detailing best practices for educators to use when instructing students with autism ("For Educators « National Autism Center", 2006). There are other resources, like the ones detailed above that provide suggestions for educating students with AS. However, there are many areas in which our current education system can improve to better help support teachers and professionals who interact with these students daily.

Diagnosis and early identification are the key to helping students with AS be more successful in a mainstream classroom. As previously mentioned with RTI, students are shuffled from one teacher to the next every year, and each new teacher tries a different strategy with them to help them learn. However, many students remain in this perpetual cycle of trying new strategies that are not helping them learn. Through early identification of students with AS, teachers gain access to research-based practices that have proved to be successful for these students. Although each student with AS is different and will uniquely respond to interventions, there are plenty of resources available to teachers and only through that identification will they make the connection and find appropriate accommodations.

To the greatest extent possible, students with AS should be kept in a general classroom where they can interact with their peers and receive the same instruction that all other students receive. As mandated by the IDEA, students should be educated in the "least restrictive environment", which in this case is the general education classroom. With this being said, general education teachers need to be prepared for having students with all different types of

learning styles in their classroom. As Temple Grandin, a professor of animal science and autism activist said, "a treatment method or an educational method that will work for one child may not work for another child. The one common denominator for all of the young children is that early intervention does work, and it seems to improve the prognosis" ("Interventions and Treatment Options," 2012).

One of the major flaws in the current educational system is the lack of information new teachers receive around strategies they can use with nontraditional students in their classrooms. Current teacher education programs, like at the University of Colorado Boulder, require teacher candidates to complete a few methods courses for content material, one assessment course, and one differentiated instruction course before they enter their semester-long commitment to full-time student teaching. As important as the content knowledge is to a future teacher, the education surrounding how to recognize a student who is struggling, or best-practices to support them, are not traditionally taught; there is just not enough time in the School of Education to cover everything that new teachers will encounter. The best suggestion universities like the University of Colorado have to offer their candidates is a differentiated instruction class which briefly discusses a few learning disabilities and some common practices for helping those students be successful in the classroom. The University of Colorado's School of Education assumes that, through a practicum in an elementary school classroom each semester leading up to the student teaching semester, candidates will pick up strategies that their cooperating teachers are using to differentiate. Although many teaching candidates do learn valuable things while in the classroom, they are lacking a specific toolkit of strategies that would be helpful for students with specific learning strengths.

Additionally, many teaching candidates do not even learn what an Individualized

Education Program (IEP) is or many other services that are available to them until that

differentiation class or through their first experience in their own classroom with a student who

is on an IEP. When teachers do not know the appropriate way to advocate for their students,

they are doing a disservice to that student and it needs to be remedied. New teachers should be

required to take a course on the mandates and policies governing their position, and be given the

necessary resources they need to be successful teachers with all types of learners. Teaching

courses should include more concrete strategies that teachers can use in their classroom to

facilitate learning for their students with learning disabilities, and implement them in their

classroom even with students who do not have personalized programs. Many new teachers are

encouraged to attend professional development seminars—that sometimes include special

education or English Language Learner instruction—but it is not required. Since they are not

receiving appropriate instruction around these topics in their own education, they should be

required to attend such seminars in which they learn specific strategies.

Another suggestion for educating future teachers is to include simulations of how

teaching really is in a classroom with certain types of students with particular needs. Teaching

candidates should go through scenarios that include students with AS-like symptoms in addition

to other common student disabilities. Through these models, teachers will learn how to react in a

real-life situation and gain helpful tips and resources that they can use to better help those

students. By creating a real-life simulation, teaching candidates see the differences that some

students present and are able to get feedback from other teachers who have handled similar

situations. Teacher education should also include more time interacting with current teachers

and actually receiving concrete strategies to use in their own classrooms rather than just

informing them of the different challenges that some students pose. Other suggestions include providing general education teachers with more psychological education around certain disorders and common treatments that therapists use. By drawing upon all their resources, like the school psychologist, GE teachers can better support their students.

The best practices that have been developed to support students with AS in general education classrooms are good. They are so good that they should be incorporated into every classroom, whether there is a student with AS in there or not. Many of the strategies that have been developed to help students with AS, or other learning disabilities, are good practices that are helpful to more students than just the student with AS. For example, we have learned so many benefits to providing social skills instruction to students with AS, but all students could benefit from that as well, if the courses were provided. Students as young as kindergarten should be taught how to properly share learning utensils, along with other skills, and those concepts should be reinforced throughout their education. Other topics, like emotion regulation and behavior management, would be especially effective in younger grades. When students first come to school, in kindergarten and first grade, they may not have had adequate time interacting with peers in a structured setting, and social rules and behavior management must be taught. This is one of the reasons why so many primary grade teachers spend lots of time going over classroom expectations and peer interaction expectations. Students need to become self-sufficient in the classroom fairly quickly in order to take control over their learning and mature as an individual.

Many students enjoy the loud and chaotic environment of a classroom, but many students, like those with AS, become flustered and upset over this environment as well. Students with AS have a difficult time screening out background noises and focusing on the most

pertinent information, so creating a classroom environment that is comfortable to them allows them to focus on what is most important: their learning. Creating a quiet space within the classroom where any students can go to refocus or providing headphones that students can use to cancel out unwanted noises allows many students to be more successful. Also designing a classroom environment in which students respect the requests of others and work together as a class to create a good learning environment allows all students to take ownership for their learning environment. Additionally, by clearly stating and displaying classroom rules or agreements for all students to see, students have a place to reference for how they should be behaving or treating their classroom and classmates. This permits the class to create a safe, quiet space that any individual, including the student with AS to escape to at any time if they need more of a peaceful learning environment. Many students, particularly those with AS, would benefit from a classroom with many "safe spaces".

Students with AS typically respond well to direct instructions and graphic organizers to keep their thoughts structured. However, many other students also benefit from visuals and diagrams that they can reference throughout the class. Providing graphic organizers for students to learn how to arrange their thoughts in a logical manner helps all students appropriately organize their opinions. For example, Venn diagrams and outline templates help all students collect their thoughts and display them coherently. Also, explicit instructions and expectations should be laid out for an entire class and clearly displayed for all students to see. Nevertheless, many classrooms are currently full of posters and students' work that cover the walls from ceiling to floor and those become a distraction for many students. By leaving some white space on the walls, students with AS or those who prefer some blank space feel less claustrophobic and overwhelmed. When students are less focused on the walls, it allows them to focus on the

learning that is happening and get more out of their day at school. Also, informing all students

that the classroom is a safe place where bullying does not exist and all students' ideas are valued

equally, helps students maintain respect for one another throughout the year.

Many students become flustered when the routine of a typical school day is interrupted or

altered. By clearly posting the schedule for the day and reviewing it during a morning meeting,

teachers can warn students of any changes and help prepare all students, making the transitions

smoother between different activities. Other students also benefit from having a posted schedule

because they have a place that they can reference throughout the day so that they know where

they should be and what is expected of them at all times. Teachers know their students well and

should be able to tell which of their students would benefit from extra reminders about changes

in routine and should be able to give them plenty of warning so they are not caught off guard.

Also, posting schedules helps many students with time management because they understand

how much time they have until the next activity and can learn to budget their time accordingly.

Some specific teaching strategies are very helpful at encouraging all students to engage in

classroom discussions and active learning. By assigning a role to each student—like discussion

leader, recorder, encourager, and reporter—it ensures that each student has a role in the

discussion and that all students will work together collaboratively to solve the problem before

them. Strategies like this were mainly designed for literacy, but can be expanded to all subjects

and will help all students in the classroom. Each role works on developing a certain set of skills

within students so that, throughout the year, they are encouraged to try out new responsibilities.

Through this, students become more comfortable sharing their opinions in class. The discussion

leaders make sure that everyone in the group is on task and working toward the end goal. The

recorder takes notes of all the information the group members provide and writes it down for the

entire group to read. The encourager makes sure that all members of the group feel comfortable sharing their opinions and the students are evenly splitting the responsibilities. Finally, the reporter shares the group's findings with the entire class during the wrap up. Throughout the year, students will move through all of the roles and should become comfortable in each one, although they may have a preference to one or another. For students with AS, roles give them more structure and directives to follow and let them know how they can contribute. They are also able to let other people lead the discussions at times and make sure all students have equal amounts of time to share their thoughts.

From the beginning of the year, teachers are getting to know their students, not just their hobbies and strengths, but also their learning styles and preferences. By capitalizing on students' strengths and allowing them to shine in their best area, teachers are boosting self-confidence, which is important for all students, especially those with AS. In elementary school, students' minds are malleable to all sorts of information and they can become easily discouraged with learning if they are not given the opportunity to shine in front of their teachers and peers. As a teacher, it is their responsibility to encourage all students to enjoy learning and want to pursue education. However, there are instances in which students should also be encouraged to step out of their comfort zone and take on more challenging roles and topics. For instance, many times a student with AS will be comfortable as a recorder, but they will not feel as comfortable sharing their group's findings with the rest of the class. Providing enough scaffolding materials and reassuring them that all students get nervous speaking up in front of an audience, helps them excel in areas in which they are not as strong.

Current teaching practices can also be improved by strengthening the community building among all players in the school and neighborhood. Students with AS will often spend a

lot of time outside of the classroom, either with specialists or paraprofessionals, and it is essential that the communication between the classroom teacher and those additional helpers is clear. All players on the team need to be on the same page and have the same goals for the student so that there is little variability in student expectations. Since many students with AS will spend time outside of their classrooms, it is also important that they get to know the entire community at their school, including custodians, office workers, resource aids, and other teachers. If a student with AS is not comfortable talking to their teacher or their specific aide, there should be a trusted adult at the school with whom they do feel comfortable.

Creating a positive learning environment around the school and neighborhood also includes helping other students understand what AS is and encourage them to help their peer. Many teachers will solicit another student in the class to be that specific student's "buddy", but the rest of the class, and the school should be aware of the disorder and helpful strategies they can be using to support that student. Often times people are scared of what is unknown, but once they understand what is going on in someone else's mind, they are more willing and able to recognize how they can help a fellow student succeed.

Furthermore, encouraging students to use person-first language will reduce the amount of bullying that will happen among all students, not just targeted at students with AS. Person-first language describes the act of emphasizing the person, instead of the disability, when talking about someone with any challenges (Folkins, 1992). For instance, using "the student with Asperger's", not "the Asperger's student" emphasizes that they are people first, and are not defined by their disability. This can also be used with other students in a classroom, like English Language Learners or students who struggle in some subjects. By emphasizing the similarities before the differences, we are working to make sure all students are respected as individuals first.

Many people complain that by telling other students about a child's specific learning disability, it leads to a label that will follow a student throughout his or her life. However, students do not need to know the name of the disorder, but they should understand what is going on in their peer's head and understand how they can help. By placing a student in a segregated special education classroom, it places a label on them, such as "special needs". However, by keeping them as part of a general classroom as often as possible, the student will just be another individual in the classroom who learns best in a certain way, just like every other student who has a unique way of learning.

One of the main improvements in education surrounds the push toward differentiating instruction for all different types of learners in a classroom. The Association for Supervision and Curriculum Development defines differentiation as "a form of instruction that seeks to maximize each student's growth by recognizing that students have different ways of learning, different interests, and different ways of responding to instruction" ("Differentiated Instruction," 2015). In practice, this involves offering different learning experiences to respond to students' varied needs. Educators may vary learning activities by difficulty, in response to students' readiness levels; by topic, to address different student interests; and/or by student's preferred ways of learning. Differentiated instruction emphasizes meeting students where they are and helping them get to the next milestone in a way that is best for them. Many teachers know their students likes and dislikes in schools, but the great teachers also understand how their students learn best and capitalize on that.

One strategy, called Universal Design focuses on creating lessons from the beginning that allow students to provide different ways for students to express their learning (Conn-Powers, et al., 2006). Originally designed to support students with physical disabilities in the built

environment, Universal Design has since been expanded to include cognitive and behavioral disabilities as well. By designing lessons with differentiated instruction—i.e. creating scaffolds, providing appropriate resources, and allowing for the use of different modes of assessment— teachers do not have to spend time trying to change their lesson to fit the individual needs of each student. There is a "general discussion within education circles about the need to improve teaching by differentiating instruction for all students and to limit special education services to a smaller number of students with more disabling conditions" (Aron & Loprest, 2012). Many differentiation strategies are similar to those provided by previously mentioned researchers and are proven to help, not only students with AS, but all students within the classroom.

Conclusion

Since its enactment in 1975, the Individuals with Disabilities Education Act (IDEA) has ensured greater access to special education for those who need it. Through the "least restrictive environment" clause, more and more students with AS have received education within a mainstream classroom. Over the last few decades, AS research has proposed various teaching strategies that can help students with AS be more successful in an inclusionary classroom.

While students with AS face many challenges in their everyday lives, the education they receive should not be one of them. With all of the supports available for teachers, parents, and administrators, students with AS can and *will* succeed in a general education classroom. The teaching techniques that have been developed to specifically help students with AS can be applied to education as a whole to make instruction better for all students. If we are to improve the United States education system from the ground up, we should be adopting best practices from schools that specialize in all types of disorders and bring them into our practices in general

education classrooms. Being reflective and proactive about teaching students with AS can make for better teachers and classrooms for everyone. Rather than being accommodations for the few, AS teaching techniques and strategies can have broad applicability and benefit.

According to choice theorist William Glasser (1997), individuals need to belong, to have power, to have freedom, and to have fun. Without these needs met, individuals will not be fulfilled or excel in life. Students with AS are no different. Although they have a disability that prevents them from understanding social cues or relating to their peers in some situations, they too need to feel safe and secure in the classroom in order to grow and learn. Through the use of various strategies, teachers can foster a positive learning environment in which all students are successful. The student in a classroom with AS is not just a problem, they are a great resource.

Works Cited

Aron, L., & Loprest, P. (2012). Disability and the education system. *The Future of Children*, *22*(1), 97–122.

Asperger Syndrome. (2013, December 10). Retrieved December 31, 2014, from

http://www.autismspeaks.org/what-autism/asperger-syndrome

Asperger Syndrome Education - Elementary. (2014). Retrieved from

http://www.aane.org/about_asperger_syndrome/asperger_syndrome_education_elementar

y.html

Attwood, T. (2008). *The Complete Guide to Asperger's Syndrome (Autism Spectrum Disorder):*
Revised Edition (1 edition). London ; Philadelphia: Jessica Kingsley Publishers.

Barnhill, G. P. (2004). Asperger Syndrome: A Guide for Parents and Educators. National

Association of School Psychologists.

Baron-Cohen, S., Mortimore, C., Moriarty, J., Izaguirre, J., & Robertson, M. (1999). The

Prevalence of Gilles de la Tourette's Syndrome in Children and Adolescents with

Autism. *Journal of Child Psychology and Psychiatry*, *40*(2), 213–218.

http://doi.org/10.1111/1469-7610.00434

Bauminger, N., & Shulman, C. (2003). The Development and Maintenance of Friendship in

High-Functioning Children with Autism: Maternal Perceptions. *Autism*, *7*(1), 81–97.

http://doi.org/10.1177/1362361303007001007

Boston Autism Schools, Boston Asperger's Schools | League School of Greater Boston -

Asperger's Programs. (2015). Retrieved from

http://www.leagueschool.org/programs/aspergers-program

Chen, P.-Y., & Schwartz, I. S. (2012). Bullying and victimization experiences of students with autism spectrum disorders in elementary schools. *Focus on Autism and Other Developmental Disabilities*, 1088357612459556.

Conn-Powers, M., Cross, A. F., Traub, E. K., & Hutter-Pishgahi, L. (2006). The Universal Design of Early Education. *Young Children*, *1*. Retrieved from http://www.chapmandisabilitystudies.com/ConnPowersBTJ.pdf

Differentiated Instruction. (2015). Retrieved from http://www.ascd.org/research-a-topic/differentiated-instruction-resources.aspx

Folkins, J. (1992). Resource on Person-First Language. *American Speech-Language-Hearing Association*. Retrieved from http://www.asha.org/publications/journals/submissions/person_first.htm

For Educators « National Autism Center. (2006). Retrieved from http://www.nationalautismcenter.org/resources/for-educators/

Gillberg and, C., & Billstedt, E. (2000). Autism and Asperger syndrome: coexistence with other clinical disorders. *Acta Psychiatrica Scandinavica*, *102*(5), 321–330. http://doi.org/10.1034/j.1600-0447.2000.102005321.x

Glasser, W. (1997). A new look at school failure and school success. Phi Delta Kappan 78 (8): 596-602.

Graden, J. L., Casey, A., Bonstron, O. (1985). Implementing a preferral intervention system: Part 11. The data. Exceptional Children, 51 (6), 487-496.

Grandin, T., & Panek, R. (2014). *The Autistic Brain: Helping Different Kinds of Minds Succeed* (Reprint edition). Mariner Books.

Hartley, S. L., Sikora, D. M., & McCoy, R. (2008). Prevalence and risk factors of maladaptive behaviour in young children with Autistic Disorder. *Journal of Intellectual Disability Research*, *52*(10), 819–829. http://doi.org/10.1111/j.1365-2788.2008.01065.x

Henderson, L. M. (2001). Asperger's Syndrome in Gifted Individuals. *Gifted Child Today*, *24*(3), 28–35.

Interventions and Treatment Options. (2012, July 25). Retrieved March 23, 2015, from https://www.autismspeaks.org/family-services/tool-kits/asperger-syndrome-and-high-functioning-autism-tool-kit/interventions-and-t

Ivymount Excellence in Special Education. (2012, November). Retrieved from http://www2.ed.gov/about/overview/fed/10facts/10facts.pdf

Koegel, L. K., Kuriakose, S., Singh, A. K., & Koegel, R. L. (2012). Improving generalization of peer socialization gains in inclusive school settings using initiations training. *Behavior Modification*, 0145445512445609.

Laushey, K. M., Heflin, L. J., Shippen, M., Alberto, P. A., & Fredrick, L. (2009). Concept Mastery Routines to Teach Social Skills to Elementary Children with High Functioning Autism. *Journal of Autism and Developmental Disorders*, *39*(10), 1435–1448. http://doi.org/10.1007/s10803-009-0757-9

Lukasik, L. (2011). Asperger's Syndrome and Eligibility under the IDEA: Eliminating the Emerging Failure First Requirement to Prevent a Good Idea from Going Bad. *Va. J. Soc. Pol'y & L.*, *19*, 252.

Mazzone, L., Ruta, L., & Reale, L. (2012). Psychiatric comorbidities in asperger syndrome and high functioning autism: diagnostic challenges. *Annals of General Psychiatry*, *11*, 16. http://doi.org/10.1186/1744-859X-11-16

McCarney, S. B., et al. Pre-Referral Intervention Manual (4th edition). Columbia, Missouri: Hawthorne Educational Services, 2014.

Myles, B. S., & Simpson, R. L. (2001). Effective Practices for Students with Asperger Syndrome. *Focus on Exceptional Children*, *34*(3), 1–14.

NINDS Pervasive Developmental Disorders Information Page. (2014, November 6). Retrieved from http://www.ninds.nih.gov/disorders/pdd/pdd.htm

Robison, J. E. (2012). *Be Different: My Adventures with Asperger's and My Advice for Fellow Aspergians, Misfits, Families, and Teachers* (1 edition). New York.: Broadway Books.

Rosenthal-Malek, A. (1998). Development of friendships and social competence. In A. Hilton & R Ringlaben (Eds.), Best and promising practices in developmental disabilities (pp. 107-115). Austin, TX: PRO-ED.

Safran, J. (2002). Supporting Students with Asperger's Syndrome in General Education. *TEACHING Exceptional Children*, *34*(5), 60–66.

Sanders, J. L. (2009). Qualitative or Quantitative Differences Between Asperger's Disorder and Autism? Historical Considerations. *Journal of Autism and Developmental Disorders*, *39*(11), 1560–1567. http://doi.org/10.1007/s10803-009-0798-0

Sansosti, J. M., & Sansosti, F. J. (2012). Inclusion for Students with High-Functioning Autism Spectrum Disorders: Definitions and Decision Making: Inclusion for Students With HFASD. *Psychology in the Schools*, *49*(10), 917–931. http://doi.org/10.1002/pits.21652

Simpson, R. L., & Myles, B. S. (1998). Aggression among Children and Youth Who Have Asperger's Syndrome: A Different Population Requiring Different Strategies. *Preventing School Failure*, *42*(4), 149–153.

Sofronoff, K., Dark, E., & Stone, V. (2011). Social vulnerability and bullying in children with

       Asperger syndrome. *Autism*, *15*(3), 355–372. http://doi.org/10.1177/1362361310365070

Sze, K. M., & Wood, J. J. (2008). Enhancing CBT for the treatment of autism spectrum disorders

       and concurrent anxiety. *Behavioural and Cognitive Psychotherapy, 36*(4), 403-409.

       doi:http://0-dx.doi.org.libraries.colorado.edu/10.1017/S1352465808004384

The Complete Guide to Asperger's Syndrome. (2014, May 15). Retrieved from

       http://www.yourlittleprofessor.com/the-complete-guide-to-aspergers-syndrome-by-tony-

       attwood/