

2011


Instructional Accommodations for Students with Asperger Syndrome in the General High School Classroom

Myrna Baylis

Dominican University of California

Survey: Let us know how this paper benefits you.

Follow this and additional works at: <https://scholar.dominican.edu/masters-theses>

 Part of the [Secondary Education and Teaching Commons](#), and the [Special Education and Teaching Commons](#)

Recommended Citation

Baylis, Myrna, "Instructional Accommodations for Students with Asperger Syndrome in the General High School Classroom" (2011). *Graduate Master's Theses, Capstones, and Culminating Projects*. 124.
<https://scholar.dominican.edu/masters-theses/124>

This Master's Thesis is brought to you for free and open access by the Student Scholarship at Dominican Scholar. It has been accepted for inclusion in Graduate Master's Theses, Capstones, and Culminating Projects by an authorized administrator of Dominican Scholar. For more information, please contact michael.pujals@dominican.edu.

Instructional Accommodations for Students with Asperger Syndrome in the General High School
Classroom

Myrna Baylis

Submitted in Partial Fulfillment of the Requirements for the Degree

School of Education and Counseling Psychology

Dominican University of California

San Rafael, CA

August 2011

Acknowledgements

The completion of my thesis was possible with the guidance and support of several individuals for whom I am grateful. My gratitude to Dr. Madalienne Peters, Director of the education master's program at Dominican University of California who made the research and writing process a truly gratifying experience through her words of encouragement and unconditional support. Dr. Peters saw my greatest potential and guided me every step of the way. Suzanne Roybal (title), for her untiring effort to provide me with every resource available for my research and for teaching me how to organize my findings. Thanks to my colleagues at Dominican University of California, for their moral support, input, and positive outlook.

Last but not least, my husband Scott who I am truly lucky to have as my friend. I am grateful to have his patience, support, and understanding with what entailed in my decision to pursue my masters in education. Thank you to my children Alexandra and David, who I am blessed to have and for being a part of this journey. Their unconditional love and delight is what gave me the energy to keep going in spite of the sleepless nights. My mother, Rafaela, and parent-in-laws David and Susan Baylis, drove many miles to care for my children, making the definition of parenthood a large measure to live up to. My mentor and brother Nery, believed in me and never got tired of telling me how proud he felt of all my accomplishments.

Table of Contents

Title Page	1
Acknowledgements.....	2
Table of Contents.....	3
Abstract.....	4
Chapter 1 Introduction.....	5
Statement of Problem	7
Purpose Statement	7
Research Question or Hypotheses	7
Theoretical Rationale.....	8
Background and Need.....	9
Chapter 2 Review of the Literature.....	11
Historical Context.....	11
Early Research: Hans Asperger	13
Review of Previous Literature	14
Diagnosis and Characteristics.....	14
Accommodating Instructional Strategies for Students with Asperger Syndrome	16
Understanding the Individual Student with Asperger Syndrome	17
Gifted Students with Asperger Syndrome	19
Administrative Records	20
Statistics.....	20
Special Collections	21
Interview with an Expert.....	22
Ethical Standards	26
Chapter 3 Method	27
Description of Method.....	27
Sample and Site	27
Data Gathering Strategies	28
Data Analysis Approach.....	28
Chapter 4 Findings.....	29
Analysis of Themes	29
Chapter 5 Discussion /Analysis	30
Summary of Major Findings.....	30
Limitations/Gaps in the Literature.....	31
Implications for Future Research.....	31
Overall Significance of the Research.....	32
References.....	33

Abstract

General education teachers in the secondary sector are held responsible for adapting their lessons and classroom environment for students with Asperger Syndrome. With the growing number of students within the autism spectrum disorder being placed in general education classrooms, teachers are faced with yet another challenge in making their curriculum inclusive. It has been my observation that teachers who have no prior training or knowledge of Asperger Syndrome struggle with making instructional accommodations to ensure these students reach their greatest potential. This study is intended to describe what secondary high school teachers are doing to differentiate instruction for their students with Asperger Syndrome and to identify some of their struggles and concerns. From the literature on the topic, it is evident that teachers feel they lack the support and training in adapting their instructional strategies for students with Asperger Syndrome. What are the instructional strategies that general education teachers can make to help high school students with Asperger Syndrome successfully achieve their full potential? Interview analysis revealed that general education teachers feel that they need additional training when they are working with students with Asperger syndrome. They suggested that this could take the form of a professional development class with a focus on dealing with children with special needs.

Chapter 1 Introduction

One semester before student teaching Dominican University of California requires credential students to observe other teachers in the field. On my fourth week of observing classrooms I observed a world history teacher who had prepared a jeopardy game as a study session for the upcoming test. As I watched students flock to a table where one male student usually sat alone, I wondered why he became so popular when just a week earlier students avoided sitting next to him. I approached the teacher I was observing and inquired more details about the student. In addition to telling me the student had Asperger Syndrome, she described him as being very knowledgeable about the content. By this far into the school year she knew the student lacked social skills, struggled with writing, forgot to turn in his assignments, and experienced nervous breakdowns when he couldn't manage assignments. Students avoided him mainly because he had one-sided conversations and would easily get agitated when discussions challenged his point of view. He could demonstrate he understood the content during classroom discussions, but the work he turned in was not reflective of it. She acknowledged that she wasn't exactly sure on how to adapt the curriculum for her student with Asperger Syndrome. She simply followed his Instructional Educational Plan (IEP) to the best of her ability.

I became very interested in understanding more on how to adapt instructional strategies for a student with Asperger Syndrome. My curiosity took me further by using him as my focus student for my Teaching Performing Assessment on "Designing Instruction." Through this I faced the task of writing a lesson making accommodations for this focus student with Asperger Syndrome and other students with special needs. Inexperienced and unsure about this autism spectrum disorder I researched to learn more about Asperger Syndrome to get a better idea of the behavioral aspects involved. I dedicated a substantial amount of time adapting my lesson

focusing on his specific needs. I wanted to make sure I made the appropriate accommodations in my one lesson. This task proved to be very challenging mainly because I didn't know the student enough as an individual. I didn't spend the months and weeks needed to get to understand the student's behavior and routines. And it wasn't until my last semester as a student teacher that I realized how much more challenging this task would be when managing two classrooms of 30 students.

While student teaching for a ninth grade world history class I spent many hours making accommodations for a student with Asperger Syndrome using his Instructional Educational Plan (IEP) as my guide. Into the first month of the semester I searched for advice from my colleagues at school, master teacher, university supervisor, and the student's resource teacher on how to adapt my instructional strategies for this student. I wasn't sure if I was adapting my lessons enough to better serve this student.

From my experience I noticed that even experienced teachers needed more training on how to teach students with Asperger Syndrome. General education classroom teachers are held responsible for making the necessary accommodations for every student with special needs. With the growing number of students with autism spectrum disorder, including those with Asperger Syndrome, making accommodations for every student presents a great challenge for teachers.

An investigation done by the U.S. Department of Education Office of Special Education and Rehabilitative Services (US DE OSERS) (2002), found that most general education teachers did not feel prepared enough to provide instructional accommodations for students who have disabilities (Moores-Abdool 2010). "In (Robertson et al.) work, (as cited in Moores-Abdool,

2010), general education teachers reported the need for supplemental training and support to successfully include the students with autism.”

Statement of Problem

I have seen a problem with teachers feeling at a loss when having to adapt their curriculum for students with Asperger Syndrome. General education teachers do not feel they have enough support and training in making instructional accommodations for students with autism spectrum disorder, including Asperger Syndrome.

Purpose Statement

The purpose of this study is to describe what secondary high school teachers are doing to differentiate instruction for their students with Asperger Syndrome and how they feel about their knowledge and training in working with this group of students. There is very little research that specifically focuses on what general education teachers are doing to change their curriculum to accommodate students with Asperger Syndrome. With the growing number of students with autism in general education classrooms and the need to accommodate instructional strategies the purpose of this study is to explore what general education teachers are specifically doing in their classrooms. Using past literature and interviews of special education professionals and general education teachers the study will continue to investigate the need and concern that educators face when making accommodations for students with Asperger Syndrome.

Research Question or Hypotheses

What steps are general education teachers taking to make instructional accommodations for students with Asperger Syndrome in helping them successfully reach their full potential?

Theoretical Rationale

The individual mind consists of beliefs, intentions, emotions, and perceptions. The ability to apply these mental states to yourself and others in order to understand behavior relies on the Theory of Mind (ToM). Lovecky (2004) describes children with deficits in ToM as having difficulty understanding what others think because they have a hard time recognizing that others have minds of their own. Deficits in the ToM among individuals with autism can be used to explain their social and communication impairments (Lantz 2002). In 1985, Baron-Cohen, Leslie and Frith fostered the theory that individuals with autism lack a Theory of Mind (ToM). Most children between the age of three and four begin to understand that other people have thoughts and feelings different from their own (Lovecky 2004). The child or adult with Asperger Syndrome does not recognize the cues that indicate the thoughts or feelings of the other person at a level expected for someone of that age (Attwood 2006). Attwood tells us that when managing conflict ToM skills are needed and therefore expects children and adults with Asperger Syndrome to have difficulties in conflict resolution. Using this theory to understand the implications that may arise when planning a lesson can raise awareness in teachers. Students with Asperger Syndrome will experience a difficulty with figurative speech, understanding the social cues during discussions, and handling conflict during group projects. Through training and knowledge of Asperger Syndrome teachers can better understand how to apply intervention strategies in the classroom. In addition to understanding Asperger Syndrome when planning curriculum one of the theories that can be applied to students with Asperger Syndrome is Tomlinson's "differentiated instruction." One goal under differentiated instruction is to provide support for the success of more students than is possible in a one-size fits-all approach (Tomlinson & McTighe, 2006).

In a differentiated classroom teachers are capable of designing lessons to meet the competency of each individual student with assessment being an ongoing method, such as using a variety of ways to assess students. When reviewing formative assessments teachers are able to diagnose how students learn, including students with Asperger Syndrome, and are capable of attending to the differences among students (Tomlinson 1999). Instructional accommodations do not change the content or the length of the assignment; they only change how the content is delivered and the method in which the student demonstrates knowledge (Moores-Abdool 2010).

Assumptions

Providing access to the general curriculum for students with learning disabilities is dependent on the general education teacher's ability to differentiate instruction for each individual student. Students with Asperger Syndrome are not reaching their full potential due to lack of training from teachers in assessing their learning and in differentiating instruction.

Background and Need

National Longitudinal Study-2 (NLTS2) funded by the U.S. DE, Institute of Education Sciences (2009) which lasted six years required researchers to follow youth with disabilities from middle school to high school (Moores-Abdool 2010). The NLTS2 study surveyed general education teachers on their curriculum modifications and instructional accommodations for secondary students with Learning disabilities and autism. A limited number of the studies actually observed general education teachers to determine what they were doing in their classroom to provide access to the general curriculum for students with autism. According to Moores-Abdool (2010) there is a disturbing absence of any research that identifies what general education

teachers are specifically doing in their classrooms to make general curriculum accessible for students with disabilities.

Chapter 2 Review of the Literature

Research studies that investigate how general education teachers adapt their instructional strategies to accommodate students with autism are few (Moore-Abdool 2010). There is ample literature on the developmental disorders of Asperger Syndrome and the need for adapting instructional strategies in mainstream classrooms. The gap that exists is largely on what general education high school teachers are specifically doing to adapt their instructional strategies for students with Asperger Syndrome and how they feel about their training when working with these students. The review of the literature provides background information on the behavioral characteristics of individuals with Asperger Syndrome. This information can be helpful to general education teachers in understanding the need for adapting the general curriculum to ensure that students with Asperger Syndrome reach their fullest potential beyond post-secondary education.

Historical Context

In 1975 Congress enacted the Education for All Handicapped Children Act (Public Law 94-142) to support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families (U.S. Department of Education Office of Special Education Programs [USDE OSEP], 2006). In 1990, some of the amendments made were to rename the act to Individuals with Disabilities Education Act (IDEA), and to extend eligibility to children with autism (U.S. Department of Education Office of Special Education Programs [USDE OSEP], 2006). By 1997 amendments to IDEA stated all students would have access to the general curriculum.

In recent years there has been a rise in the number of individuals being diagnosed with Autism Spectrum Disorder (ASD) (Sicile-Kira, 2004). Asperger Syndrome is a neurological disorder within ASD in which the characteristics vary in the degree of impairment in language and communication skills, as well as repetitive or restrictive patterns of thought and behavior (National Institute of Neurological Disorders and Stroke [NINDS] 2005). Asperger Syndrome is often referred to as high-functioning autism, particularly in the U.S.A (Winter 2003). Increased rates of ASD have an impact on every aspect of society, particularly the public education system (Moores-Abdool 2010). Through the implementation of federal laws public education has worked hard to meet the needs of students with disabilities (Moores-Abdool 2010).

In addition to IDEA, in 2001 the No Child Left Behind Act (NCLB, 2001) made changes for students with disabilities (Moores-Abdool 2010). NCLB stresses access to the general curriculum and access to all state mandate tests for students identified for special education (Karger, 2005| Karger & Hitchcock, 2003) as cited in (Moores-Abdool 2010). Per federal law, instructional accommodations for special education students are outlined in the student's individualized education plan (IEP) (IDEA, 2004). Each student with an IEP is also required to have a team of qualified school professionals and family members to discuss the IEP (IDEA, 2004). One important 2004 IDEA revision requires that general education teachers be a part of the IEP team (Moores-Abdool 2010). Requirements from IDEA and NCLB have increased expectations from general education teachers. According to the National Academies in a report released June 2001, educators face substantial and unique challenges in instructing children with ASD, and to improve professional-development opportunities for teachers in this field state and federal agencies need to set aside extra funds to train those who work with or are accountable to such children and their families (Office of News and Public Information, 2001).

At the American Association of People with Disabilities Conference in Washington D.C., March 2011, Secretary Duncan said “For too long, the answer to educating students with disabilities was to isolate them and deny them the same educational experiences others were having. Those days are over. The fact is — 60 percent of students with disabilities today spend 80 percent of their time in the regular school environment. Those numbers are a great improvement and there is no reason they should not keep rising as more and more teachers know how to effectively work with students with disabilities” (U.S. Department of Education). While the inclusion of students with disabilities into mainstream classrooms has opened educational opportunities for students with disabilities, keeping up with adaptations to the curriculum has been challenging for general education teachers. There is a number of intervention strategies designed for students with ASD and used in many educational settings, the main concern is that no one intervention is proven to be effective for every child with ASD (National Research Council 2000). In the mainstream secondary school setting there is a need for adaptations to the curriculum to meet the needs of students with Asperger Syndrome (Harbinson and Alexander 2009). The education of students with disabilities, including those with Asperger Syndrome, has gone through several changes over the last thirty years. With these changes general education teachers have faced the challenge of adapting their classrooms to meet the needs of every student. The main concern is the lack of training that general education teachers feel when having to adapt their instructional strategies for students with Asperger Syndrome.

Early Research: Hans Asperger

In the early 1940s, Leo Kanner, an Austrian psychiatrist at John Hopkins University in America and Hans Asperger, an Austrian pediatrician in Vienna, used terms such as “autism” from the

Greek word *autos* which means self, independently of each other when describing children with autistic characteristics (Sicile-Kira 2004). While Kanner was the first to identify autism as a complex neurological condition in 1943, Asperger also used autistic in his published doctoral thesis in his study on four boys (Sicile-Kira 2004). The four children that Asperger observed in his practice had difficulties integrating socially; and although their intelligence appeared normal, they lacked nonverbal communication skills, and failed to demonstrate empathy with their peers (NINDS 2005).

Asperger's observations were published in German, therefore the condition "Asperger Syndrome," wasn't used until 1981 when an English doctor Lorna Wing, M.D., FRCPsych, published an account of 34 similar cases of the disorder in children (Gillberg 2002) as cited in (Graetz & Spampinato 2008).

A decade after Dr. Wing introduced the condition Asperger Syndrome, it became a distinct diagnosis in 1992 when it was published in the tenth edition of the World Health Organization's diagnostic manual, *International Classification of Diseases* (ICD-10), and by 1994 it was added to the *Diagnostic and Statistics Manual of Mental Disorder* (DSM-IV), the American Psychiatric Association's diagnostic reference book (NINDS 2005).

Review of Previous Literature

Diagnosis and Characteristics

Within the *Diagnostic and Statistical Manual of Mental Disorders IV Text Revised* (DSM-IV-TR) there are five sub-types of Pervasive Developmental Disorders: (a) Autistic disorder, (b) Asperger's disorder, (c) Rett's disorder, (d) Childhood disintegrative disorder, and (e) Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) (APA 2000) as cited in (Moores-

Abdool 2010). The criteria used to diagnose Asperger Syndrome (AS) is very much like Autistic Disorder to the extent that there are qualitative impairments in social interaction, a presence of restricted, repetitive, and stereotyped behavior, interests and activities (Whitman 2004). Individuals with ASD are said to portray characteristics that fall into a “triad of deficits,” that include communication, socialization, and interests and activities (Graetz and Spampinato 2008). Although autism and AS have their similarities and are diagnosed under the DSM-IV, differences are seen in the degree of impairment and symptoms (Bogdashina 2005). For example, the criteria of social interaction for classical autism and AS are the same, but the way it manifests itself is different (Bogdashina 2005).

There is no medical test that can diagnose for ASD, diagnosing is based on observing the behavior that an individual exhibits (Sicile-Kira 2004). In the National Institute of Neurological Disorders and Stroke (2011) website you can find the Asperger Syndrome Fact Sheet that includes some of the developmental disorders that are characterized in individuals with Asperger’s Syndrome. According to the Asperger Syndrome Fact Sheet, professionals such as a psychologist, neurologist, psychiatrist, speech therapist, and others who have expertise in diagnosing children with AS will look for the following behaviors: repetitive routines, speaking in an overly formal manner or monotone, taking figures of speech literally, socially and inappropriate behavior, inability to interact socially with peers, problems with non-verbal communication, and clumsy and uncoordinated motor movements.

Harbinson and Alexander (2009) describe an impairment of the imagination as one of the central criteria for the diagnosis of Asperger Syndrome (AS). For example, if a student with AS takes figures of speech literally and has an impairment of the imagination, subjects like English

will inhibit difficulties. Also, the lack of empathy for their peers on behalf of the student with AS can appear to be rude to the individual unaware of the condition.

In a mainstream classroom setting having a solid understanding of the developmental disorders in students with Asperger Syndrome is beneficial to the student, their peers, and teacher. In addition, it can help general education teachers understand the student individually and seek intervention strategies or training to make the student's learning fulfilling.

Accommodating Instructional Strategies for Students with Asperger Syndrome

“While considering all aspects of a student's needs, it is vital to remember that the emphasis should not be only on the deficits-the student has many strengths that need to be recognized and nurtured” (Horn, 2009, p. 169). Understanding cognitive features of the mind of individuals with Asperger Syndrome can help teachers understand what these students say, how they behave, and how they learn. Teachers who are willing to modify assignments and provide individualized accommodations that reflect the child's needs and abilities can help make school less overwhelming and learning possible (Jacobsen 2005). It is important that teachers and parents know how a particular child with Asperger Syndrome thinks and learns in order to improve his or her cognitive abilities and academic achievement (Attwood 2006).

In terms of academic achievement, adults commonly identify the success of students with high ability to skill and failure to the lack of effort; and in students with low ability adults will identify success to effort and failure to lack of ability (Burkhardt 2008). When applied to students with ASD in the area of social competence, these findings suggest that students with high functioning ASD can be at risk for having their social competence deficits identified as lack of effort rather than ability (Burkhardt, 2008). It is alarming to see how the risks definitely affect

how the child with high functioning ASD, such as students with Asperger Syndrome can be perceived in their social competence when there is a lack of knowledge of the syndrome itself.

By providing individualized accommodations and modifying assignments that focus on the individual student's needs and abilities school becomes less overwhelming and learning more possible for students with Asperger Syndrome (Jacobsen, 2005). High level academic curriculum can potentially be maintained if adapted to the needs of students with Asperger Syndrome (Jacobsen 2005). Harbinson and Alexander (2009) state that although individuals with high-functioning AS usually attend mainstream schools and their difficulties are subtle in comparison to individuals with severe autism, their challenges in mainstream classroom settings shouldn't be underestimated. It should be apparent to any educator that has worked with a student with Asperger Syndrome that they process information differently and will need extra support and accommodations (Betts 2007). According to Harbinson and Alexander (2009) in a secondary mainstream school setting there must be adaptations to the curriculum to meet the needs of students with AS. But before adaptations can be made, to successfully teach a child with AS, teachers must understand the complicated and unique characteristics that come with this syndrome (Betts 2007).

With the rise in the number of students with ASD, including those with Asperger Syndrome over the last 20 years, experienced and new teachers need more information to work with students with Asperger Syndrome (Betts 2007).

Understanding the Individual Student with Asperger Syndrome

Each student with Asperger Syndrome is different and each will have their own unique challenges (OAR 2010). Teachers must recognize that students with Asperger Syndrome will

display academic strengths, but also accept that working with them will pose a serious challenge (OAR 2010). There are six steps that the Organization for Autism Research (OAR) has outlined for educators to help prepare themselves when expecting a student with Asperger Syndrome in their classroom. In addition, available on their site is the *Educator's Guide to Asperger Syndrome* at no expense.

Unless teachers are aware of the need to educate themselves in Asperger Syndrome, the cycle in their lack of training and knowledge will continue to limit the academic achievement that students with AS are capable of reaching. The first step that OAR (2010) tells educators is to learn about Asperger Syndrome and the specific characteristic of the student, in turn, this will help manage their behavior. The second step would be to reach out to parents, simply because they know the child better than anyone and can share the student's routines and activities. The third step OAR suggests is to prepare the classroom. Once the teacher has learned about the characteristics and sensitivities of the student with AS, they can manipulate the classroom to make it a comfortable learning environment. The fourth step is to educate peers and encourage social goals. When applied to instructional strategies, assigning a "buddy" system in the classroom can help with group work anxiety. Socially outside and inside the classroom teachers and school staff should be aware that students with Asperger Syndrome are targets of bullying and teasing and must watch for signs. The fifth step is to collaborate on the educational development program, such as becoming familiar with Individualized Education Programs (IEP). Finally, the sixth step involves managing the behavioral challenges. Students with Asperger Syndrome may not always know when they are near a stage of crisis. Prior to a meltdown there is a pattern of behavior, sometimes subtle, which suggests an approaching behavioral outburst. According to OAR, prevention through the use of appropriate academic,

environmental, social, and sensory supports and modification to environment is the most effective method.

These are wonderful tools for teachers, however, the need for training in the field is necessary for the simple fact that not every teacher will understand the ways in which special education professionals are trained to work with the students in any area of ASD. Particularly when dealing with the behavioral challenges that heavily influence instructional strategies.

Gifted Students with Asperger Syndrome

Although individuals with Asperger Syndrome (AS) will demonstrate core impairments of the triad: communication, socialization, and interests and activities, they have an average or above average IQ (Harbinson and Alexander 2009). With the rise in the number of gifted students diagnosed with Asperger Syndrome, teachers of the gifted are now faced with understanding more about the behavior, learning style, and individual needs of students with Asperger Syndrome (Horn 2009). According to Horn (2009) gifted teachers have very little experience in working with this group of students and are often confused on how to meet their educational, social and emotional needs. Most experts in the area of gifted education have little experience in recognizing social, emotional, and cognitive deficits that come with AS (Lovecky 2004). Horn (2009) describes how more students with Asperger Syndrome are being placed in gifted classrooms.

Gifted students with AS collect information and categorize it, however, their inability to connect the information to anything else they are learning is challenging when gifted students without AS are capable of making comparisons in other fields of knowledge (Lovecky 2004). In IQ test profiles, gifted students with AS demonstrate to have visual-motor functioning is often

below average (Lovecky 2004). What Lovecky (2004) tells us is that in terms of academics, gifted students with AS demonstrate they have a harder time with the output of their work, especially written work. This is a common occurrence among non-gifted students with AS. It is possible that as a result of their uncoordinated motor movements they struggle with written responses. Overall the main concern is the lack of knowledge and experience that these teachers have in meeting the educational, emotional, and social needs of these students.

Administrative Records

The Individuals with Disabilities Education Act (IDEA) has undergone many reforms in the last thirty years. One of the most recent changes has been its alignment with the No Child Left Behind Act of 2001 (NCLB). NCLB and IDEA hold schools accountable for making sure students with disabilities achieve high standards. Aligned with the principles of NCLB, IDEA is responsible for promoting accountability for results, enhancing the role of parents, and improving student achievement through instructional approaches. Both laws share the same goal of improving academic achievement through high expectations and high-quality education programs. Through these efforts the education system is moving toward achieving full access to high-quality curricula and instruction to improve the education for children and youths with disabilities (U.S.D.O.E).

Statistics

According to the Centers for Disease Control and Prevention (CDC), Autism Spectrum Disorder (ASD) affects as many as one in 110 births and it affects each person in different ways ranging from mild to severe cases (CDC 2011). These numbers also influence education through federal

laws such as IDEA and NCLB. In 1970, U.S. schools educated only one in five children with disabilities, many states even had laws excluding certain students from its schools such as, children who were deaf, blind, emotionally disturbed or mentally retarded. As a result of IDEA about 6.5 million children and youth receive special education and services to meet their individual needs (U.S. D.O.E). IDEA authorizes formula grants to states. The OSEP-administers IDEA into three formula grant programs, the Grants to States program authorized by Part B Section 611 for children ages 3 through 21 (U.S. D.O.E).

Special Collections

The National Institute of Neurological Disorders and Stroke (NINDS) along with other institutes at the National Institute of Health are sponsoring research to understand what causes Asperger Syndrome (AS). In one study they are using functional magnetic resonance imaging (fMRI) to show how abnormalities in specific areas of the brain cause changes in brain function that result in the symptoms of AS and other ASDs. There are other studies that include a clinical trial testing the effectiveness of an anti-depressant in individuals with AS and HFA who exhibit high levels of obsessive/ritualistic behavior and a long-range study to collect and analyze DNA samples from a large group of children with AS and HFA and their families to identify genes and genetic interactions that are linked to AS and HFA (NINDS 2011).

The following research study is being conducted by the UC Davis Mind Institute in Sacramento, CA:

The UC Davis MIND Institute (2011) supports research designed to understand the causes and to develop effective diagnoses, treatments, preventions, and ultimately, cures for autism, fragile X and other neurodevelopmental disorders.

Led by MIND Institute Research Director David G. Amaral, a multi-disciplinary team of scientists began a pilot study in 2006 of 55 children and their families.

Over 52 MIND Institute scientists from eight research areas are taking part in the Autism Phenome Project (APP). It aims to distinguish among recognized subgroups or phenotypes of autism. It will link these different forms of autism with distinct patterns of behavior and biological changes. Some of the expected outcomes are to change the way autism is defined, diagnosed and treated by gathering unprecedented kinds and amounts of biomedical and behavioral data from 1,800 children and their families over the course of five to eight years. The project, which has been in the design phase for two years, ultimately will include 1,800 children at multiple sites across the country, including the National Institute of Mental Health and, perhaps, internationally. The study includes children 2 to 3-1/2 years of age. Data gathered from children with autism will be compared to that from children with typical development. The APP is a longitudinal study with families returning for follow-up evaluations for several years.

Interview with an Expert

In an interview with Dr. Jenny Bueso (anonymous, interview, March 10, 2011), a special education professor at Bella Vista University (pseudonym) in Northern California, through her extensive experience in special education and in working with other educators I asked her to share with me some of the concerns that she observed with mainstream teachers in adapting their lessons and classroom environment for students with Asperger Syndrome. She shared that there

are three factors that play into my question. The first being, general education teachers are not trained particularly to teach students with learning disabilities. Second, in terms of training there needs to be a robust training in credential programs. Third, beginning teachers are learning how to be teachers and are now having to adapt lessons for students on the autism spectrum.

During the interview Dr. Bueso shared intervention strategies I had never heard of when working with students within the autism spectrum disorder. She informed me of the 21 strategies of Applied Behavior Analysis (ABA) used when working with students within the autism spectrum of which she feels general education teachers are not well resourced with. In addition, she shared that general education teachers are being asked to teach many students with little resource and training in this field, which she considers to be a “tall order.”

I asked Dr. Bueso to share some of her recommendations for mainstream classroom teachers when adapting their instructional strategies, such as their lessons and classroom environment. She highly recommends individualizing instruction for each student and for general education teachers to investigate the documents that children bring with them. Once there is a clear understanding of the student she advises using the nine types of adaptations for assignments. But for all students in general she strongly believes there should be a menu of response choices to assess student learning considering each individual needs different ways to demonstrate knowledge. A good source that she referred to when focusing on the student as an individual is *Differentiated Instruction Made Easy: Hundreds of Multi-Level Activities for All Learners*, by Kaplan, Rogers, and Webster.

In an interview with Mr. Keith Masó (anonymous, interview, May 16, 2011), a Social Science general education teacher at Thomas Jefferson High School (pseudonym) in Solano

County, I learned that in his experience students with Asperger Syndrome have a hard time synthesizing the content. Knowing that, he strongly believes that in essence teachers are not trained to work with students with autism mainly because they need a small learning environment to get the one-on-one that they need.

When I asked Mr. Masó some of the specific strategies that he uses with his student with Asperger Syndrome in addition to following his IEP, he told me he checked for understanding, monitored progress, and strategically placed the student somewhere he can monitor his learning. While he tries to create lessons that can cater to all learning styles and modalities, and experienced as he may feel, he thinks there is a lack of assistance in working with students with learning disabilities in general. If teachers are going to be working with students within autism spectrum disorder, there is a need to provide additional trained staff within a classroom to collaboratively work with general education teachers.

According to Ms. Linda Stretton, a general education social studies teacher also at Thomas Jefferson High School, when working with students with Asperger Syndrome she uses her common sense and has learned from students in the past with this condition, however, she doesn't think she is properly trained. She feels she could better serve these students with proper training.

With the inclusion of students with learning disabilities into mainstream classrooms and federal laws acknowledging the need for training teachers, I asked Ms. Stretton during the interview if she thought there was a great need in focusing on facilitating training to give teachers the tools needed to adapt their classrooms. She absolutely agreed by telling me that in terms of training special education has received the least attention and on the job such as

professional development classes, there should be a great deal of focus on training teachers in the growing area of special education.

Sample and Site

Dr. Jenny Bueso has been a special education professor at Bella Vista University for ten years. In addition, she has thirty years of experience in the field of special education. The interview with Dr. Bueso provided me with a great wealth of knowledge and additional resources to use in my research. Her ample knowledge helped me focus the direction of my research and provided insight on how important intervention and training is for general education teachers working with students with Asperger Syndrome and other learning disabilities.

Mr. Keith Masó and Ms. Linda Stretton, both general education social studies teachers at Thomas Jefferson High School were honest and direct during their individual interview. Knowing their identities were anonymous and our previous working relationship, both teachers provided me with their experience and challenges in working with students with Asperger Syndrome.

Access and Permissions

Approval by the Institutional Review Board at Dominican University of California was granted prior to the interviews. Interviewees were aware of the purpose of my research and usage of information using confidentiality. Having worked at Thomas Jefferson High School, I met the on campus requirements to interview teachers.

Ethical Standards

I acknowledge that all procedures during the interview process meet relevant local, state, and federal regulations regarding use of human subjects in research. Ethical principles in the conduct of research with human subjects as set forth by the Dominican University of California IRBPHS Handbook per IRB approval #8276 were followed.

Chapter 3 Method

Description of Method

In gathering my data I take a qualitative approach by interviewing special education professionals and general education teachers in secondary education. By interviewing special education professionals I am confident that their professional training and extensive knowledge in the special education field will provide me with a professional insight as to the specific needs of students within the autism spectrum disorder. I am confident that I will be getting a professional perspective as to the need for training among general education teachers in working with students with Asperger Syndrome. The interviews with general education teachers is mainly focused on teachers who have experience or at one point had a student with Asperger Syndrome in their classroom. I feel that their first hand experience and the challenges that they may have faced speaks to the real need for training or even knowledge of the special needs of students with Asperger Syndrome.

Sample and Site

There are two areas I focused my research on. I began gathering information by interviewing Dr. Jenny Bueso, a Special Education Professor at Bella Vista University. As one of the few universities that offers a program for individuals seeking a special education credential, I felt that her expertise would be extremely valuable. She has been teaching at Bella Vista University for ten years and has over thirty years experience in the field of special education. My selection to interview general education teachers at Thomas Jefferson High School was partly because I worked closely with them, but also mainly due to their first hand experience in working with students with Asperger Syndrome.

Data Gathering Strategies

With a qualitative approach my data consists of interviews with general education teachers and special education professionals. I scheduled individual interviews with questions focused on the basis of my research. In conducting interviews with people in the special education field I got a perspective from professionals who are experienced and have training in working with students with autism. The general education teachers that I interviewed had or presently have a student with Asperger Syndrome in their classroom therefore they can provide first-hand experience and insight.

Interviews were conducted individually. Identification of other interviewees was kept confidential to ensure privacy and avoid bias.

Data Analysis Approach

Information obtained from the interviews was documented and shared via email with each participant to ensure accuracy. Information was reviewed for common themes.

Chapter 4 Findings

Analysis of Themes

In the Organization for Autism Research (2010), the American Academy of Pediatrics advises that recent evidence indicates that “early and intensive behavioral and educational intervention can make a significant positive impact on long-term outcomes.” (Family and Friends: Intervention section, para.2). Some of the frequently used interventions include Applied Behavior Analysis (ABA) as mentioned in the interview with special education professional, Dr. Bueso. Interventions based on the principles of ABA were documented as highly effective in teaching academic, social, communicative, motor and adaptive skills (OAR 2010). Research has shown that interventions using the principles of ABA consistently teach new skills and behaviors to children with autism (OAR 2010).

Chapter 5 Discussion /Analysis

Summary of Major Findings

From the interviews conducted as part of the research there is evidence that indicates that general education teachers feel there is a need for training and more knowledge when working with students with Asperger Syndrome. More importantly the interview with a special education professional provided an expert opinion on the need for training when working with students with Asperger Syndrome or any student population with a learning disability.

According to the general education teachers that I interviewed there needs to be some kind of support for teachers whether it is placing an aid to work as a team or to make training inclusive in professional development classes that can help them better support their students with Asperger Syndrome. As for their instructional strategies, what I found was that they kept the curriculum the same but tried to strategically place their student with Asperger Syndrome in an area where they can monitor their learning and have an overall routine and structure in place. But in order to better serve these students so that they may move beyond secondary education, they felt they lacked the training to deal with some of the behavioral challenges and strategies that can increase their academic achievement.

Special education professional, Dr. Bueso, indicated that when working with students with ASD there are strategies that are used such as Applied Behavior Analysis (ABA). These are strategies that a special education professional would be familiar with in having received the training and education, however, these strategies not common to the general education teacher eye are beneficial tools that can help them when dealing with the behavioral challenges that

Asperger Syndrome students present. Once general education teachers have a better understanding of the behavioral aspect, with training they can focus on the instructional strategies that can better serve this group of students in reaching their fullest potential.

Limitations/Gaps in the Literature

One of the limitations from focusing on the interview method was the process in locating enough general teachers within the secondary sector who currently have a student with Asperger Syndrome. Secondly, not being able to observe a teacher's everyday interaction with a student with Asperger Syndrome limited my access to information relevant to my research. Observing everyday instructional strategies, student behavior, and following their academic achievement on a quarterly basis could compare with teacher confidence.

Implications for Future Research

With each student having different needs and being at varying levels of the spectrum it is difficult to come up with an umbrella of instructional strategies that can specifically help students with Asperger Syndrome. Each student is a case by case which needs individualized instruction, but by understanding their behavioral challenges through some kind of training integrated into a professional development class, general education teachers can understand Asperger Syndrome and learn how to adapt their instructional strategies for each student. More importantly teachers need to learn how to be more subtle about their intervention methods considering these students are not blind to their condition and are already feeling challenged socially. Teachers will also need to understand that having a student with Asperger Syndrome will have an educational and social impact on their classroom. The larger question consists of

what approach will be taken to implement professional development training with a focus in the areas of ASD on a district by district level.

Overall Significance of the Research

Society is constantly changing in the areas of technology, medicine, legislation and government. Over the decades the education system alone has gone through numerous changes from desegregation laws, laws to improve the qualifications of teachers, and changes in demographics. The education system has faced the challenges of adapting to the many changes and the individuals within it have also faced these same challenges. With the inclusion of students with learning disabilities, including Asperger Syndrome into mainstream classrooms, general education teachers are now having to adapt their classrooms to meet the needs of every student. It seems more prevalent that with the changes such as the increasing number of students with ASD particularly Asperger Syndrome in mainstream classrooms, general education teachers would have be better prepared to serve a new population of students.

References

- Advances in special education, volume 18: Current practices and issues* (2008). In Rotatori A. F., Obiakor F. E. and Burkhardt S. A. (Eds.), Bradford, United Kingdom: Emerald Group Publishing Ltd. Retrieved from <http://site.ebrary.com.ezproxy.dominican.edu/lib/dominicanuc/docDetail.action?docID=10317993>
- Attwood, T. (2006). *The complete guide to asperger's syndrome*. London: Jessica Kingsley Publishers.
- Betts, S. W. (2007). *Asperger syndrome in the inclusive classroom: Advice and strategies for teachers*. London: Jessica Kingsley Publishers.
- Bogdashina, O. (2005). *Theory of mind and the triad of perspectives on autism and asperger syndrome: A view from the bridge*. London: Jessica Kingsley Publishers.
- Center for Disease Control and Prevention: Autism Spectrum Disorder (ASD) (2011). Retrieved from <http://www.cdc.gov/ncbddd/autism/index.html>.
- Graetz, J. E., & Spampinato, K. (2008). Asperger's syndrome and the voyage through high school: Not the final frontier. *Journal of College Admission*, (198), 19-24.

- Harbinson, H., & Alexander, J. (2009). Asperger syndrome and the English curriculum: Addressing the challenges. *Support for Learning, 24*(1), 11-18. doi:10.1111/j.1467-9604.2009.01392.x
- Horn, B. (2009). Gifted students with Asperger Syndrome. *Gifted Education International, 25*(2), 165-171. Retrieved from <http://web.ebscohost.com/>
- Jacobsen, P. (2005). *Understanding how Asperger children and adolescents think and learn: Creating manageable environments for AS students*. London: Jessica Kingsley Publishers.
- Lantz, J. *Theory of mind in autism: Development, implications, and intervention*. Retrieved 03/28, 2011, from <http://www.iidc.indiana.edu/?pageId=424>.
- Lovecky, D. V. (2004). *Different minds : Gifted children with AD/HD, asperger syndrome and other learning deficits*. London, , GBR: Jessica Kingsley Publishers.
- Moores-Abdool, W. (2010). Included Students with Autism and Access to General Curriculum: What Is Being Provided? *Issues in Teacher Education: A Journal of the California Council on Teacher Education, 19*(2) 153-167.
- National Institute of Neurological Disorders and Stroke. (2005). *Asperger Syndrome Fact Sheet*. Retrieved from http://www.ninds.nih.gov/disorders/asperger/detail_asperger.htm.
- Organization for Autism Research: Educators & Service Providers. *6 Steps to Success for Asperger Syndrome* (2010). Retrieved from <http://www.researchautism.org/educators/aspergersteps/index.asp>.

Sicile-Kira, C. (2004). *Autism Spectrum Disorders: The Complete Guide to Understanding Autism, Asperger's Syndrome, Pervasive Developmental Disorder, and Other ASD's*. New York: The Berkeley Publishing Group.

The National Academies: News from the National Academies. *Early Intervention Is Key To Educating Children With Autism* (2001). Retrieved from <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=10017>.

Tomlinson, C. A. (1999). *Differentiated Classroom: Responding to the needs of all learners*. Alexandria, VA, USA: Association for Supervision & Curriculum Development.

Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design : Connecting content and kids*. Alexandria, VA, USA: Association for Supervision & Curriculum Development.

United State Department of Education: Office of Special Education and Rehabilitative Services. (2004). *Thirty Years of Progress in Educating Children with Disabilities Through IDEA*. Retrieved from <http://www2.ed.gov/policy/speced/leg/idea/history30.html>.

United State Department of Education: Special Education and Rehabilitative Services. (2004). *Twenty-Five Years of Progress in Educating Children with Disabilities Through IDEA*. Retrieved from <http://www2.ed.gov/policy/speced/leg/idea/history.html>.

United State Department of Education. *Celebrating the Success of All Students*. Retrieved from http://www.ed.gov/blog/2011/03/celebrating_the_success_of_all_students/.

Whitman, T. *The Development of Autism: A Self-Regulatory Perspective*. London and New York: Jessica Kingsley Publishers.

Winter, M. (2003). *Asperger syndrome: What teachers need to know*. Philadelphia, PA, USA: Jessica Kingsley Publishers.

Appendix A Interview Questions

Name

Number of Years Teaching

Position in the school

1. With your extensive experience in special education and in working with other educators what are some of the concerns that you have observed with mainstream teachers in adapting their lessons and classroom environment for students with Asperger Syndrome?
2. Describe your views on the potential of students with Asperger Syndrome in settings where teachers do not have knowledge about these students and how they learn.
3. Students with Asperger Syndrome have IQ test score levels of gifted students and are being placed in gifted classes. Explain your perception of the background these teachers have in adapting their lessons for students with an IEP compared to their knowledge of teaching gifted students with no underlying learning disabilities?
4. Describe your recommendations for mainstream classroom teachers when adapting their instructional strategies, such as their lessons and classroom environment.
5. Most credential programs prepare students on how to adapt their lessons for working with students with learning disabilities and English language learners. Describe your viewpoint on the need for veteran and new teachers receiving additional training strictly focusing on working with students with varying disabilities, Asperger Syndrome being one of them.
6. Please add any additional information that you feel is important for me in investigating this area of research.

In closing, I want to thank you again for taking time to discuss this area of research and offer your input. Your setting aside time to meet with me is of great value.