

ABSTRACT

Title of Dissertation: AN INVESTIGATION OF ASSESSMENT AND IEP DEVELOPMENT IN THE FUNCTIONING AREAS OF SOCIAL, BEHAVIORAL, AND COMMUNICATION OF HIGH SCHOOL STUDENTS WITH AUTISM SPECTRUM DISORDERS

Susan Carol Sigerseth, Doctor of Education,
2011

Dissertation Directed By: Professor Frances L. Kohl,
Department of Special Education

Autism Spectrum Disorders (ASD) are life-long disabilities which manifest impairments in social skills, communication skills, and restricted, repetitive behaviors (DSM-IV, 1994). The purpose of this study was to investigate assessment and Individualized Education Program (IEP) development among high school students with an ASD, focusing on the assessment of social, behavioral, and communication skills. The design of this study was descriptive utilizing structured record reviews. Assessment selections and outcomes leading to IEP development were documented for 16 high school students with an ASD during the 2009-2010 school year. The assessment records of each participant were examined to determine what assessment domains had been requested and assessed, extracting information on social, behavioral, and communication skills, and which assessment instruments were used. Additionally, the IEP was examined to

determine what instructional goals and objectives were written in the areas of social, behavioral, and communication. Variability among student records made retrieving assessment data difficult. Assessments that had been requested were not always given and assessments were given that had not been requested. Assessment domains did not yield basic information they were intended to provide. Although on average half of the students' IEPs contained goals that were social, behavioral, and/or communication, these goals and objectives were neither rigorous enough for the academic level of the student nor lead to independence to be successful, productive adults.

AN INVESTIGATION OF ASSESSMENT AND IEP DEVELOPMENT IN THE
FUNCTIONING AREAS OF SOCIAL, BEHAVIORAL, AND COMMUNICATION OF
HIGH SCHOOL STUDENTS WITH AUTISM SPECTRUM DISORDERS

by

Susan Sigereth

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Education

2011

Dissertation Committee:
Professor Frances L. Kohl, Chair
Professor Margaret J. McLaughlin
Professor Philip J. Burke
Dr. Victoria Page-Voth
Professor Carol Parham

© Copyright by
Susan Carol Sigereth
2011

Dedication

I dedicate this work to my beautiful husband, Gerald Kyander, without whose love and support I would never have been able to accomplish the things that I have. Thank you for absolutely everything.

Acknowledgements

I would like to thank my committee and the professors who helped form my dissertation through a very long process over a number of years. I have learned so much from each and every one of you.

Francey Kohl – I can never say enough about the value of your assistance and mentorship. You are a very special lady.

My fellow doctoral students have been a source of strength, knowledge, insight, and laughter over our four years together. All of you are wonderful in your own way.

My WWW gals have stood by me to offer support, friendship, and most of all laughter and diversion when I have needed it.

My parents, William & Carol Sigerseth, have always shown me the way – even when they didn't think they could see it themselves.

And finally, to the students involved in this study and in my life, you are the true source of my dedication to the field.

Table of Contents

Dedication.....	ii
Acknowledgement	iii
Table Of Contents.....	iv
List of Tables.....	vi
List of Appendixes	vii
CHAPTER 1 Introduction.....	1
Statement of the Problem	2
Research Questions.....	7
Statement of Purpose.....	8
Definition of Abbreviations and Terms.....	8
List of Abbreviations	8
Definition of Terms	9
CHAPTER II Review of Literature.....	13
Policy, Regulations, and Practice Literature.....	13
Diagnostic Criteria for ASD and Federal Law	13
School System Regulations and Practices.....	16
High School Issues with ASD Students	21
Best Practice in Assessment of Students with an ASD	23
Best Practices in IEP Development for Students with an ASD	28
Empirical Research in Assessment and IEP Issues	30
Literature Search Methods	30
Review of the Empirical Studies	31
Assessment Research	32
IEP Research	35
Summary of the Research and Implications	38
CHAPTER III Method.....	40
Research Questions	41
Design of the Study	42
Participants/Sample	42
Construction of Data Collection Recording Form.....	43
Method of Record Review.....	44
Reliability	49
CHAPTER IV Results	50
Research Question 1	50
Research Question 2	59
Research Question 3	62
CHAPTER V Discussion.....	65
Limitations.....	65
Discussion of Findings Related to Research Questions	67
Research Question 1	67
Variability among student reports	67
Lack of parental permission	70
Specific assessment domains	71
Research Question 2	81

Research Question 3	86
Implications	87
Assessment Recommendations for All Students	89
Assessment Recommendations for Students Diagnosed with an ASD	90
IEP Recommendations for Students Diagnosed with an ASD	91
Conclusion	92
Appendices	94
References	121

List of Tables

- Table 1. *Number and Percent of Assessments by Domain Requested, Assessed, Reported, and Included Social, Behavioral, or Communication Information across 16 Sets of Records*
- Table 2. *Number and Percent of Additional Assessments Requested, Assessed, Reported, and Included Social, Behavioral, or Communication Information across 16 Sets of Records*
- Table 3. *One to One Correspondence of Requested Assessments on Assessment Plans and Assessed Assessments on Eligibility Reports by Domain and Additional Assessments across 16 Sets of Student Records*
- Table 4. *Name, Number of Assessment Instruments Cited, and Included Social, Behavioral, or Communication Information across 16 Sets of Records*
- Table 5. *Number and Percent of 15 IEPS with Specific Goals and Objectives Identified as Social, Behavioral, or Communication*

List of Appendixes

Appendix A – Methodological Critique Matrix on 12 Research Studies

Appendix B – Autism Spectrum Disorder Assessment Plan

Appendix C - Eligibility Report Form

Appendix D – Letter to CSC Chairperson Requesting Assistance

Appendix E – Letter to Parents

Appendix F – Assessment and IEP Development Recording Form

Appendix G – Records Review Procedural Protocol

CHAPTER I

Introduction

Autism Spectrum Disorders (ASD) are life-long disabilities, which manifest impairments in social skills, impairments in communication skills, and restricted, repetitive behaviors (DSM-IV, 1994). The spectrum includes diagnoses of autism, Asperger syndrome (AS), and Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS). The number of children diagnosed with an ASD has greatly increased over the last 20 years. This is partially due to the addition of Asperger syndrome to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) in 1994. The Centers for Disease Control and Prevention (CDC, 2005) stated the prevalence rate as 1 in 150 8-year-old children in multiple areas of the United States as having an ASD which occur in all racial, ethnic, and social groups and is four times more likely to occur in boys than girls. Symptoms range from very mild to quite severe and include a lack or delay in spoken language, repetitive motor mannerisms like hand flapping and twirling objects, little or no eye contact, lack of interest in peer relationships, and the inability to deal with change. In 2004 the Center on Disease Control in conjunction with the American Academy of Pediatrics issued an autism alarm to educate physicians about ASDs. There is now a wealth of information available to the general public about how to identify ASDs, where to go for screening, early interventions, and other resources for children and young adults. There are literally hundreds of web sites that contain information on assessment, characteristics, education, and intervention.

Statement of the Problem

Needless to say students with an ASD are in high school in higher numbers also. Unfortunately there is not as much information on how best to determine this population's needs and how to provide quality secondary programs. High school poses different challenges compared to elementary or even middle school. In high school, students have their own set of six to eight classes with different teachers, each with their own expectations, social dynamics, structure, and curricular requirements (Harrison, 1998). Teachers tend to work in subject-oriented teams rather than student-oriented teams as in elementary or middle school (Boscardin, 2005). Most high schools are structured on the credit for class model where a designated number of credits are required to graduate. High schools also require specific classes as requirements for graduation, which are mainly content classes that involve basic skills to do the work required. Due to the No Child Left Behind Act of 2001 (NCLB), graduation requirements have increased over the last ten years including the number of credits and higher level classes needed to graduate. The law has also emphasized inclusion in general education classes for all students and a requirement for all teachers to be highly qualified in each core subject area they teach. These demands have increased the emphasis of getting the student with ASD through the general education requirements of high school and may have decreased the emphasis and time to spend on students' individual needs and goals (Harvey, 2004; Tincani, 2007).

High school can be a difficult time for any adolescent (Graetz & Spampinato, 2008), but it poses more problems for adolescents with an ASD due to their particular deficits in social, behavioral, and communication skills. Skills in these areas affect the

very essence of young adulthood, independence, and self-reliance (Atwood, 2006). Attwood states the lack of skills in these areas can negatively affect global school functioning, especially in the adolescent years. McAfee (2002) discusses that students with an ASD have problems with reading and understanding the thoughts, intentions, and feelings of others, executive functioning, abstract thinking, recognizing and coping with emotions, and dealing with stress. There is a greater emphasis on verbal skills in high school, which may cause more complications for students with an ASD in interpreting intentions, expectations, and meaning. Often students' strengths in IQ mask difficulties in organization, handling socially demanding situations, and executive dysfunction (Klin & Volkmar, 2005). Ozonoff, Goodlin-Jones, and Solomon (2005) reported one of the most replicated cognitive deficits in individuals with an ASD is executive dysfunction which includes many skills required to prepare for and execute complex behaviors, such as planning, inhibition, organization, self-monitoring, cognitive flexibility, and set-shifting. MacNeil, Lopes, and Minnes (2009) stated that research suggests adolescents with an ASD experience significantly higher levels of anxiety than their peers and this anxiety often interferes with daily functioning. They add these skills are important to measure because they are important to school and real world success.

There is a growing concern about the potential impact on public monies and resources for the increasing number of adults with an ASD (California Department of Developmental Services, 2003). Advancing Futures for Adults with Autism (AFAA) convened a Think Tank in 2009 to develop and drive policies that provide for lifelong living and learning for persons with autism. They discuss the "tsunami effect" of the huge numbers of children with autism moving into adulthood in the near future and the

lack of viable services and options to meet their needs. Their emphasis is to break the all too common status of “dependency” and help this population of young adults become engaged tax-paying members of their communities (AFAA, 2009). These writings highlighted the importance of maximizing the potential of students with an ASD during the high school years, the last years of federally mandated educational services. The question for parents and educators is no longer what the appropriate intervention is for their child with an ASD, but rather how best to transition their child into adulthood (Hincha-Ownby, 2008).

Studies involving young children with an ASD have emphasized the importance of appropriate and thorough assessment procedures to determine educational needs (Klin, 2003; National Research Center, 2001). While early diagnosis and intervention for children with an ASD is agreed to be paramount, continued assessment of needs is just as important a factor in program planning throughout the student’s school years and transition to adulthood (Myers & Johnson, 2007). The majority of research available with high school age students appears to center on transition needs for post-secondary school or the stability of the initial diagnosis over time (Adreon & Durocher, 2007; Howlin, 2005; Klin & Volkmar, 2003; McAfee, 2002). There is little research addressing appropriate assessment procedures and IEP development for high school age students with an ASD (Harrison, 1998). McAfee (2002) stated most information about educating students with Asperger syndrome is cutting edge and there has not yet been enough time to adequately develop and test techniques to see which work best.

Although some students may undergo initial evaluation for a possible ASD in high school, most high school students with an ASD will be going through re-

examination for special education eligibility. The Individuals with Disabilities Education Act (IDEA, 2004) requires special education students be re-examined every three years to determine continued eligibility for special education services. The law states that existing information should be reviewed to determine if additional data are needed to determine the student's present levels of academic achievement and related developmental needs to determine: (a) if the student has a disability or continues to have a disability; (b) whether any additions or modifications to the special education and related services are needed to enable the student to meet the measurable annual goals of the IEP; and (c) if the student can participate, as appropriate, in the general education curriculum. Transition planning, to begin at age 16 and become a formal part of the IEP, is also required by IDEA. Transition planning is defined as a coordinated set of activities for a student that promotes movement from school to post-school activities including: post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, and community participation.

The federally funded school system in this study is made of 192 schools in 14 districts located in 12 foreign countries, seven states, Guam, and Puerto Rico. There are approximately 8,700 educators serving more than 84,000 students. The schools serve a large number of children with parents serving in the military. A director oversees all agency functions from the school system's headquarters. The agency is divided into three geographic regions. Each region has a director and is divided into districts, which are headed by Superintendents. Region 1, the region that is the center of this study, consists of 81 schools within five districts, which serve over 35,000 school age children.

Most families stay in these school locations for an average of 3 years. By the time these students come to high school they have usually attended a number of schools in different geographical locations. Cumulative school records for these students do not often follow them all the way to high school.

Federal regulations, IDEA, and the participating school system's own regulations direct Special Education services. A Case Study Committee (CSC) reviews five disability categories during the evaluation process to determine eligibility for special education. The categories are: Physical Impairment, Emotional Impairment, Communication Impairment, Learning Impairment, and Developmental Delay. Autism Spectrum Disorders are included in the category of Physically Impaired. The school system also requires that eligibility be determined with the system's eligibility requirements for each student entering the system on an IEP based on recent assessment within the last calendar year. Continued eligibility for special education is required to be determined every three years in the school system. Transition assessment is required to be completed and part of the IEP by a student's 16th birthday.

Although it is agreed that thorough and appropriate assessment is the key to inform appropriate Individual Education Program (IEP) development for any student with a disability, there is little research investigating this process with high school students who have an ASD. Furthermore, as stated, two of the three diagnostic criteria for ASD (DSM-IV) are in the areas of social development and restricted behavior. However, in the school system investigated in this study, neither area is explicitly required within the assessment and eligibility process. If these areas are not assessed in initial eligibility assessments it is less likely they will be evaluated in subsequent assessments to include

high school time periods. For this age group adequate social skills are assumed in the general student population, but this is not true for the population of students with an ASD. The school system has made no clear recommendation of what assessment instruments are best to use with this population to investigate needs in the social and behavioral domains. This lack of clear assessment direction leads to difficulties in the development of an appropriate IEP for high school students with an ASD in the school system. The high school student with an ASD may be left without appropriate goals and objectives to meet their individual needs at a time when social demands, educational pacing, and increasing school complexity are at their highest (Graetz & Spampinato, 2008).

Research Questions

The following three research questions addressed the examination of assessment and IEP development for high school students with an ASD in Region 1 of the school system, specifically in the functioning areas of social, behavioral, and communication skills, as manifested in electronic records available to the researcher.

1. Have current levels of social, behavioral, and communication functioning been assessed and reported on the most current Eligibility Report and any subsequent assessment among high school students identified as having an ASD?
2. What are the instruments used in assessing social, behavioral, and communication functioning among high school students who have been identified as having an ASD?
3. What are the goals and objectives from the most current IEP in the functioning areas of social, behavioral, and communication among high school students identified as having an ASD?

Statement of Purpose

The purpose of this study was to investigate assessment and IEP development among high school students with an ASD in Region 1 of a large school system that serves a large number of students from military families. Specifically the functioning areas of social, behavioral, and communication skills will be investigated since these skills are crucial to becoming a successful adult. It is essential to determine how school system personnel are currently addressing assessment and IEP development in these areas for students with an ASD. The analysis and interpretation of the data contribute to the knowledge base on the current state of practice in assessment and IEP development in the areas of social, behavioral, and communication skills for high school students with an ASD in Region 1. From obtained information, it may be determined what is successful to help students with an ASD achieve their highest developmental potential and what practices might need further investigation, require change, or require more training for staff.

Definition of Abbreviations and Terms

List of Abbreviations

AS – Asperger Syndrome

ASD – Autism Spectrum Disorder

BIP – Behavior Improvement Plan

CSC – Case Study Committee

DSM-IV – Diagnostic and Statistical Manual of Mental Disorders, 4th Edition

FBA -- Functional Behavior Assessment

IDEA – Individuals with Disabilities Education Act

IEP – Individual Education Program

NCLB – No Child Left Behind of 2001

NLTS2 – National Longitudinal Transition Study 2

PDD – Pervasive Developmental Disorder

Definition of Terms

Accommodations – an adaptation to the environment or method of presentation or production that does not affect the standard outcome.

Additional Assessments - Any assessment beyond the eight domains requested by the Case Study Committee for the Assessment Plan including assessments in adaptive behavior (skills required to function in daily life routines), transition (skills needed for post school competence), intelligence (an IQ test), social skills, motor skills, etc.

Assessment – a process used to ascertain a student’s skill and functioning level within a specified area.

Assessment Domains - eligibility in special education for an ASD requires assessment in eight domains: Vision and Hearing Screen, Observation, Social/Family/Medical History, Review of Records, Measure of Educational Performance, Medical Evaluation, Language, and Educational Impact Analysis.

Assessment Plan – a document that identifies which assessments to be given to a student to determine eligibility for special education services under an area of disability.

Autism Spectrum Disorder – Encompasses the diagnoses of autism, Asperger syndrome, or Pervasive Developmental Disorder – Not Otherwise Specified.

Behavioral Assessment – investigation into the how the student acts or responds to stimuli in his/her environment.

Behavioral Functioning - how the student acts or responds to stimuli in his/her environment.

Behavioral Goals or Objectives – expected outcomes for a student that pertain to his/her actions or response to stimuli in the environment.

Case Study Committee – a team that makes special education decisions on a student usually consisting of parents, a general education teacher, a special education teacher, an administrator, and the student. This is also the IEP team.

Communication Assessment – investigation into how the student expresses or receives verbal and non-verbal language to and from others.

Communication Functioning - how the student expresses or receives verbal and non-verbal language to and from others.

Communication Goals and Objectives - expected outcomes for a student that pertain to their verbal and non-verbal expressive and receptive language.

Procedural Guide – written guidance for all processes in special education.

Diagnostic Criteria – the criteria essential to make a medical diagnosis.

Educational Need – a special education term for an area of need that impacts a student's educational performance.

Eligibility – the process of qualifying for special education.

Eligibility Report – a report that summarizes assessment data (assessments given and results of the assessments) and the process of qualifying for special education. It also includes the student's current levels of performance and areas of educational need.

Excent –web based data recording system for special education records and processes.

Executive Functioning – a set of cognitive abilities that control and regulate the ability to monitor, anticipate, adapt, and change our behavior in the presence of changing or novel situations.

Functional Analysis – an analysis of the function of behavior.

Functional Assessment - an assessment that investigates how a person performs in the environment.

Functional Behavior Assessment – an assessment to determine the function of a student’s maladaptive behavior along with when, where, and how a student demonstrates that behavior.

Functioning Areas – (a) Behavioral Functioning - how the student acts or responds to stimuli in his/her environment; (b) Communication Functioning - how the student expresses or receives verbal and non-verbal language to and from others; and (c) Social Functioning - how the student relates or interacts with others.

General Education – classes from the general curriculum available to all students.

Graduation plan – the specific classes students need and will take to graduate from high school and when they will take them.

High School – the educational institution that services students in grades 9-12.

Individual Educational Program (IEP) – the legal document developed annually for a student with a disability that determines the parameters of the student’s education to include, goals and objectives, time in service, service providers, special factors, modifications, accommodations, graduation plan, and statement of least restrictive environment.

Individuals with Disabilities Education Act (IDEA) – the federal law that covers children with disabilities from birth to 21.

Modifications – an adaptation to the environment or method of presentation or production that changes the standard outcome.

No Child Left Behind Act of 2001 (NCLB) – federal law that governs general education and aims to set state standards, assessments and accountability systems.

Present Levels of Performance – the levels a student currently performs at.

Restricted, repetitive behaviors – repetitive movements, compulsive behaviors, resistance to change, ritualistic behaviors, limited focus or interest, or self-injurious behavior.

Social Assessment – investigation into how the student relates or interacts with others.

Social Functioning - how the student relates or interacts with others.

Social Goals and Objectives - expected outcomes for a student that pertain to their relating or interacting with others.

Special Education – services provided to a student who qualifies as a student with a disability.

Subsequent Assessments - assessments requested after a student's Eligibility Report is completed. The Case Study Committee may request a Transition Report, a behavioral assessment, or other assessments to inform programming.

Transition – the process of preparation for the next phase of life after high school.

CHAPTER II

Review of the Literature

The purpose of this study was to investigate the assessment and IEP development among a sample of high school students diagnosed as having an Autism Spectrum Disorder (ASD) in Region 1 of a large school system that serves a large number of students from military families. This chapter discusses the diagnostic criteria for an ASD, along with the federal laws governing special education. Then the school system's regulations and practices used to assess, make eligibility determinations, and develop IEPs for students with ASD are reviewed. Next, school and related difficulties for high school students with ASD are examined. Next, the literature that addresses best practices in assessment and IEP development are reviewed. Finally, the empirical research literature on assessment and IEP development issues with the ASD population are reviewed. A synthesis of this information is provided at the end of the chapter.

Policy, Regulation, and Practices Literature

Diagnostic Criteria for ASD and Federal Law

Autism Spectrum Disorder is generally considered to encompass the pervasive developmental disorders of autism, Asperger syndrome, and pervasive developmental disorder- not otherwise specified (PDD-NOS). The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV), (American Psychiatric Association, 1994) lists the diagnostic criteria for an autistic disorder as: qualitative impairments in social interaction, communication and restricted, repetitive and stereotyped patterns of behavior, interests, and activities. These delays or atypical functioning must have been demonstrated before three years of age. The behaviors also cannot be accounted for by

another disorder. The DSM-IV criteria for Asperger syndrome include: a qualitative impairment in social interaction and restricted, repetitive, stereotyped patterns of behavior, interests, and activities. The disturbance must display significant impairments in social, occupational, or other important areas of functioning. There is no clinically significant delay in early language or early cognitive development. The DMS-IV defines PDD-NOS as a diagnosis by exclusion. If a child demonstrates some but not all of the symptoms of autism and does not fit one of the other PDD diagnoses then a professional might decide that a diagnosis of PDD-NOS is warranted.

The federal law, Individuals with Disabilities Improvement Act (IDEA, 2004), states the basic purpose of initial evaluation for special education eligibility and any re-examination for continued special education eligibility is to determine whether the child has or continues to have a disability and to determine present levels of academic achievement and related needs of the child. The next step is to determine if the child needs or continues to need special education and related services. Finally, needed modifications and related service needs to meet goals and objectives and to participate, as appropriate, in the general education curriculum must be determined. The law does not specifically state what areas or domains need to be assessed for eligibility for ASD.

The IDEA regulations state the IEP must include a statement of the child's present levels of educational performance to include how the child's disability affects his/her involvement and progress in the general curriculum and that measurable goals and short term objectives must be related to meeting the child's needs that result from the disability and enable the child to be involved in and progress in the general curriculum. The intent of the law is to ensure all the child's needs that would enable the child to be

successful in the school environment be considered for development of the IEP. The law also requires the involvement of a representative from the school/agency who is qualified to provide or supervise the provision of specially designed instruction to meet the unique needs of children with disabilities.

IDEA (2004) requires transition services (for further education, employment and independent living) begin with the first IEP to be in effect when a special education student turns 16, or younger if determined appropriate by the IEP team, and updated annually thereafter. The law defines transitional services to include appropriate measurable postsecondary goals based upon age appropriate transition assessments related to training, education, employment and, where appropriate, independent living skills and the means to reach these goals. The law also requires a functional behavior assessment be conducted in the case where a special education student, for disciplinary reasons, has been removed from his/her IEP placement, when the behavior is deemed a manifest of their disability. The functional behavior assessment should lead to appropriate behavior intervention services and modification to prevent further discipline violations.

The No Child Left Behind Act of 2001(NCLB) requires all students have access to the general education curriculum from highly qualified teachers. This puts even more emphasis on students receiving their education in the general education classroom as a first consideration. Even though the school system does not fall under NCLB, regulations tend to follow the intent of the federal law. Specific special education classes that can be offered to students with disabilities within the school system are limited in high school for students who fall under the general graduation plan. For the most part the

special education classes offered for students graduating on a general graduation plan include math, language arts, and learning strategies.

The School System Regulations and Practices

The school system's *Procedural Guide* is the prevailing guidance for the Case Study Committee (CSC) to follow through all components of the special education process. It defines ASD to include Pervasive Developmental Disorder (PDD), Asperger syndrome, as well as the diagnosis of autism. The definition of ASD is a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3 that adversely affects educational performance. The term does not include students with characteristics of the disability "serious emotional disturbance."

Initial eligibility assessment for special education in the area of ASD requires the following eight domains to be included: Vision and Hearing Screen, Observation, Social/Family/Medical History, Review of Records, Measure of Educational Performance, Medical Evaluation, Language, and Educational Impact Analysis. It is important to note there is no specific requirement for a social or behavioral assessment for determining eligibility for a student with a suspected ASD. These two functioning areas may possibly be incorporated within other required assessments but may just as easily not be addressed.

High school age students may be evaluated for ASD eligibility for the first time while they are in high school. However, since an ASD is a lifelong disability, most students at the high school level participate in a second or third evaluation rather than an initial eligibility evaluation. The school system's *Procedural Guide* is very clear on the

assessment requirements for initial evaluation for special education eligibility under ASD, requiring assessments in the eight domain areas listed above. The school system also requires that eligibility be determined with the system's eligibility requirements for each student entering the system on an IEP based on recent assessment within the last calendar year. Continued eligibility for special education is required to be determined every three years in the school system.

The guide treats re-evaluation differently than initial evaluation. The re-evaluation process is required to start with a thorough review of the student's records to determine what information about the student is available and what areas may require assessment because of lack of current information. The school system's *Procedural Guide* presents questions that must be answered during the re-evaluation or triennial review for continued eligibility and substantiated by data. The questions are:

1. What are the student's present levels of performance and educational needs?
2. What, if any, additions or modifications to the special education and related services program are needed to enable the student to meet his or her IEP annual goals, and to participate, as appropriate, in the general education curriculum?
3. Does the student continue to be a "student with a disability"?
4. Does the student continue to need special education and related services?

On what basis the annual goals and objectives are to be determined in Question # 2 is ambiguous. If educators do not address all possible areas of need when writing goals and objectives then the answer to this question could be greatly affected. There does not appear to be a mechanism in place to ensure all areas of development are considered. The guide states if additional information is needed to answer these questions, then an

Assessment Plan (refer to Appendix B) is to be developed. If an area is not to be assessed, the CSC must document why the area does not need to be assessed. A written report documenting the student's current performance must be included in an Eligibility Report (Appendix C), a report that summarizes assessment results and outcomes.

The information in the Eligibility Report is to help the CSC describe the student's present levels of educational performance and need. Understanding the student's current functioning level and need is intended to assist the committee in developing specific goals and objectives that address the areas of identified educational need. The IEP section of the procedural guide states that to assist in determining student needs, the CSC must review the results of the student's assessments, such as classroom performance, individual tests administered to determine eligibility for special education, and observations by teachers, parents, related service personnel, and others, as appropriate. The parameters of the areas to investigate for the present levels of performance to develop the IEP are not delineated.

Transitional planning is required in the school system as part of the annual IEP meetings for students 16 and older. Methods of collecting relevant data for transition planning must be specified in the Assessment Plan. The purpose of transition assessment is to help students with disabilities identify their interests, aptitudes, and abilities to assist them in choosing post-secondary outcomes and goals. Transition assessments, according to the procedural guide, are also to provide information about the instructional strategies, techniques, and assistive technology that should be used, along with supports and linkages needed within the community. All information should inform educational programs with specific goals and objectives to prepare the student for the adult world.

The guide states the CSC should consider the student's potential needs in the following program components: academic learning; career/employment and vocational training; financial planning for current and future needs; awareness of educational/training programs, government assistance programs, and adult living needs; living requirements following high school; leisure and recreational interests and activities; social relationships; independent living skills; self-advocacy; and medical support and assistance. The Transition Plan and goals are then reviewed each year at the annual IEP meeting.

Discipline problems may also be a situation that will require assessment for a special education student. The school system's *Procedural Guide* calls for the CSC to conduct a functional behavior assessment (FBA) when a student exhibits patterns of challenging behavior or a single serious act of misconduct, a change in placement is recommended or made as a result of a discipline procedure, or current behavioral intervention plan is not changing the pattern and/or outcome of the behavior. The FBA is intended to inform an effective behavior intervention plan that teaches appropriate replacement behaviors and reduces negative behaviors. The plan may require an IEP review to add services, goals, objectives, additional supports, and modifications.

The school system has published a document titled, *Reaching and Teaching Students with ASD: A Best Practice Guide*, developed as a result of the Autism Summit of 1999. Contributors included personnel from the school system, community personnel, developmental pediatricians, and the National Advisory Panel. The purpose was listed in the beginning pages as "to maximize the development and learning of children with an ASD in acquiring academic skills, social interaction abilities, functional communication,

and appropriate behavioral functioning”. The guiding principles state that an appropriate instructional program for students with an ASD be based on current research and state of the art practices, they are developed for the individual student on the basis of comprehensive and accurate assessments conducted by school and medical personnel, and they are determined by a multidisciplinary team that includes the student’s parents and the student, where appropriate. The guide goes on to state appropriate instructional programs are comprised of a variety of approaches and instructional strategies and they are implemented by appropriately trained and competent school and medical personnel and evaluated by systematic measures of student outcome based progress. This document identifies the areas of social interaction and appropriate behavioral functioning as areas needing to be addressed with this population.

Reaching and Teaching Students with ASD: A Best Practice Guide predominately deals with young children and initial programming, although there are sections that deal with Essential Functional Life Skills and Planning for Independence. A section on Vocational and Transition Assessment for high school age students is also included. The guide states the following skills are essential for mastery during high school to transition to post-high school life: appropriate communication skills to interact with others and follow directions for a job, social skills that allow the student to work with co-workers, hygiene skills, socially appropriate behavior, the ability to attain a reasonable rate of production, and the ability to transition adequately to different tasks. The importance of working on self-advocacy skills in high school and investigating and preparing for career goals is also discussed. A list of instruments helpful for Vocational/Transition Assessment, along with checklists for work related behaviors are also included.

High School Issues for Students with an ASD

Few studies have focused on educational attainment of youth with autism. The National Longitudinal Transition Study-2 (NLTS2) published a fact sheet on the secondary school experiences of students with autism (Newman, 2007). The fact sheet provided a national picture of secondary school experiences of a sample of students with autism who received special education services during the 2001-2002 school year. The fact sheet did not make judgments about the quality or appropriateness of the services; it just stated what services were reported. Ninety percent of the students with an ASD took at least one academic class, which could have been in general or special education classes, with the breakdown as follows: 89% of the sample took a language arts class, 90% took a math class, 69% took a social studies class, 67% took a science class, and 12% took a foreign language. Seventy-seven percent also took a vocational class. As for nonacademic classes, 74% of the sample took physical education, 71% took a life skills class, 63% took a fine arts class, and 35% took study skills. Only 62% took at least one general education class. On average general education classes made up about a third of the courses taken by students with an ASD who were more likely to take nonacademic classes in general education. One third of students with an ASD received standard general education classes without modification, 47% receive some modifications, 12% receive substantial modifications, and 8% receive specialized curriculum. Teachers reported students with an ASD responded less actively than their peers. General education teachers stated 63% of students with an ASD had placements in general education as appropriate. The use of the general education curriculum in special education classes was rare, at 2%. The most often used modifications included additional

time to complete assignments, more time for tests, alternative tests or assignments, slower paced instruction, shorter or different assignments, modified tests, modified grading system, tests read to them, and physical modifications to the classroom. More than half of the students received support in the form of instructional assistants. Some type of technological aid was received by 57% of students with an ASD and 70% received some type of related service including speech or language, transportation, adaptive PE, behavioral counseling, assistive technology, occupational therapy, physical therapy, or health services. Although this information shows a picture of services for students with an ASD in high school, it does not show their experiences.

Klin and Volkmar (2005) discussed the difficulty seeing the significance of disabilities of students with ASD due to the fact many students possess seemingly proficient verbal skills along with IQs in the normal range. These two strengths often mask difficulties in organization, socially demanding situations, and executive brain functioning. Unless a comprehensive evaluation is completed investigating all these areas, the student may be left floundering.

Additionally, many students with an ASD have problems with anxiety, coping skills, and maintaining emotional control (McAfee, 2002). Often they are unable to generalize the strategies they have learned in one setting to other situations when they need them (Siegel, 1996). Wilczynski, Menousek, Hunter, and Mudgal (2007) emphasized the difficulty in program planning for students with an ASD due to the extraordinary variability in skills and symptoms under different circumstances such as times, settings, people, and when different materials are used. Graetz and Spampinato (2008) discussed that although more students with Asperger syndrome are planning to

attend college, they are often ill prepared to handle the college environment. Anxiety can often block the ability to use their academic and language skills. Limited eye contact, odd body postures, and difficulties initiating and sustaining conversations make social interactions one of the most challenging obstacles to college success. Group discussions, which switch from one person to another, each with their own viewpoint, are an increasingly large part of secondary education but the student's difficulty in processing auditory information along with idiomatic language problems make class involvement a rarity. Students with an ASD may not recognize other people have different thoughts, ideas, and interests. They usually have difficulty understanding social rules, which often leaves them alone and without social support. Difficulties in executive functioning lead to problems with organizing, planning, setting appropriate goals, and managing change. All of these challenges often lead to or exacerbate the high levels of stress and anxiety for the student with an ASD, which emphasize the areas of social, organization, and coping skills as major areas of concern for adolescents with ASD.

Best Practice in Assessment of Students with an ASD

Achenbach (2005), in a special section of the *Journal of Clinical Child and Adolescent Psychology* dealing with advancing assessment for children and adolescents, discussed the importance of evidenced-based assessment has been omitted in the emphasis and search for evidenced-based treatments. He stated it is hard to determine how treatments are working if the problems they are based on have not been appropriately and adequately assessed. Shiver, Allen, and Mathews (1999) stated that determining eligibility for special education services requires assessment. Assessment

should not only verify eligibility but also lead to effective educational programming for students with an ASD.

Klin and Volkmar (1995) recommended a multidisciplinary team for assessment and feel strongly that parents need to be a part of the assessment. Assessment results should translate easily into implications for adaptation, learning, and vocational training. They suggested a comprehensive evaluation should include: developmental history, psychological assessment, communication assessment, and psychiatric evaluation. The aim of psychological assessment is to establish the overall level of intellectual functioning while profiling strengths, weaknesses, and style of learning. Assessments should also determine neuropsychological functioning (e.g., motor skills, memory, executive functions, problem-solving, visual-perceptual skills), academics, and personality assessment. Communication assessment should obtain information on vocabulary, sentence construction, comprehension, non-literal communication skills, pragmatics, prosody of speech and content, and coherence and contingency of conversation. The psychiatric examination should include observations in structured and unstructured situations that investigate relationships, leisure skills, special interests, social and affective presentation, and behavior problems. Klin (2003) suggested a comprehensive evaluation would consist of the following procedures: a thorough developmental and health history, psychological assessment, communication assessment, and diagnostic assessment. Possible investigations into behavior management, motor disabilities, neurological concerns, psychopharmacological needs, and vocational areas should also be considered.

Johnson and Myers (2007) give clear steps to early screening techniques for pediatricians to use for children mostly in the age range from 18 to 24 months old for a suspected ASD, though a few instruments were geared for older children up to 22 years old. A number of instruments were listed with the most appropriate age groups. They stated ideally a team of child specialists should be involved in comprehensive evaluations for diagnosis including: health, developmental and behavioral history, physical examination to include neurological abnormalities, developmental and/or psychometric evaluation to determine the child's overall functioning, and whether there is a discrepancy between motor-adaptive problem-solving, social communication skills, and standardized instruments to determine the presence of a DSM-IV diagnosis. They also suggested the parent's knowledge of ASDs, coping skills, and available resources and supports should be assessed. Moreover, Aspy and Grossman (2007) stated a comprehensive evaluation should include a developmental history, observations, direct interaction, parent interview, and an evaluation in social, communication, sensory, emotional, cognitive, and adaptive behavior. Additional assessments that might be indicated include motor and medical conditions.

Aspy and Grossman (2007), Johnson and Myers (2007), Klin (2003), Klin and Volkmar (1995), and Shiver, Allen, and Mathews (1999) agree that a complete history of the child, a communication and social assessment, and a motor evaluation should be considered during evaluation. Johnson and Myers (2007), Klin (2003), and Klin and Volkmar (1995) also agree a full psychological and diagnostic assessment should be included in evaluation. Aspy and Grossman (2007), Klin and Volkmar (1995), and Johnson and Myers (2007) agree that an assessment of social skills should also be

included in an evaluation. Many different assessment areas could possibly be included within a psychological or a diagnostic assessment.

A Family Reference Guide to Services for Youth and Young Adults with Autism (TEACCH Center, undated online publication) suggests a functional assessment for adolescents to prepare for adulthood and to inform the IEP. Areas of functional assessment should include: self-help, independent functioning, communication, leisure, social interaction, and vocational skills. The philosophy is that without the ability to apply the skills learned, the adolescent with an ASD would have great difficulty in the mainstream world.

Harris and Glasberg (2007) discussed the importance of functional assessment as a tool for students with an ASD to deal with maladaptive behaviors. They promote a triad of assessment components including interviews with parents, teachers, and possibly the student; descriptive analyses as to what is happening within the natural environment; and a functional analysis. The purpose of the interviews is to ascertain possible variables that might be linked to the behavior from the people who know the student best. Descriptive analyses are made from direct observations of the student in the environments that maladaptive behaviors take place. The functional analysis systematically manipulates variables to determine the topography of the variables influences the behavior. The authors highlighted the challenges of completing a functional assessment in an applied setting and find the key element to successful assessment is having the involvement of a skilled behavior analyst.

Barnhill (2002) also pointed out the usefulness of a functional behavior assessment for students with an ASD to look at behavioral, social, and emotional

functioning. The author promotes the use of RIOT: review (student records), interview (with multiple informants that know the child), observe (systematically to determine frequency, duration, intensity, consequences and antecedents of behavior), and then test (standardized or informal instruments). Gresham, Sugai, and Horner (2001), in their review of meta-analytic research on social skills training with students with disabilities, concluded that the traditionally weak treatment effects of many social skills programs may be due to the failure to match identified skill deficits with treatment objectives. As such, the first step of any social skills program should be to identify the specific social skills that will be the target of the intervention. Bellini and Hopf (2007) suggest a good instrument for this is the *Autism Social Skills Profile*. Their preliminary study on this instrument substantiates the internal consistency, test–retest reliability, and concurrent validity.

Adreon and Durocher (2007) state that although there is increasing information for students with learning disabilities who transition to college, there is little information for students with an ASD. One of the problems the authors see with a comprehensive transition evaluation for students with an ASD is that many of these students were considered eligible for special education services under areas other than ASD. They stated many high functioning students with an ASD were actually made eligible under other health impaired, gifted, learning impaired, or emotionally impaired. This puts up an added barrier to address the unique needs of students with an ASD. They discussed four areas to assess for students with an ASD as part of transition assessment: independent living, self-advocacy, academic supports, and social needs. Independent living skills include sensory issues related to living conditions, personal hygiene, dressing

properly, shopping, scheduling, transportation, problem solving, and decision-making skills. Self-advocacy skills include how to disclose information to access supports and accommodations, initiating contact, and where to go for help and assistance. Academic supports and accommodations include a variety of supports that would be needed to perform the requirements of college to include course planning, organization, study skills, tutoring, and general college rules and regulations. It is important to also investigate what social supports might be needed. Students may need someone to help them navigate through the complexity of college life. They may need someone to check in on them, need help as a liaison between them and parents or professors, and need help forming social relationships.

Best Practices in IEP Development for Students with an ASD

The term Pervasive Developmental Disorder means that multiple areas of functioning are impacted so one would expect to find, even at the high school level, several different areas of functioning addressed in a student's IEP. The Committee on Educational Interventions for Children with Autism (National Research Council, 2001) states, due to many unresolved issues between diagnoses within the autism spectrum any child given a diagnosis within the spectrum, regardless of severity, should be eligible for special education services within the category of autism. This is due to the shared diagnostic triad of deficits in communication, social, and behavioral skills with educational programming needs centering on these deficits.

Wilczynski et al. (2007) discussed the scarcity of research that has been conducted on the ASD population and IEP development. Most curricula available commercially center on only one area of deficit, while most of the literature focuses on

“how” to teach, not “what” to teach. They identified six domains that should be considered for inclusion in any IEP for students with an ASD and list possible goals and objectives under each. The domains (goals and objectives) are: communication (basic interaction language skills along with nonverbal language skills and pragmatics), social (attention, play, perspective taking, friendship, and problem solving), restrictive repetitive maladaptive behaviors (flexibility, transition, stereotypy, and obsessive and compulsive thoughts), emotional self-regulation and behavior management (mood, anxiety, aggression, and on task behavior), academic considerations (critical thinking and group skills), and adaptive considerations (personal care, daily living skills, leisure skills, organizational skills, vocational skills, and transition to adulthood). Goals and objective for motor and sensory issues were not listed, but the authors suggested they be considered.

The American Academy of Pediatrics (2007) also comments on the lack of published research on comprehensive programs for older children and adolescents with an ASD. The focus of programs for this age group should be on achieving social communication competence, emotional and behavioral regulation, and functional adaptive skills necessary for independence. They strongly suggested educational programs be individualized for the child’s impairments with attention to maximizing the child’s strengths and providing needed supports. They emphasized that even high functioning students with an ASD have needs that should not be relegated to paraprofessional aides, as often is the case, but require the attention of a trained professional to ensure appropriate programming and successful outcomes.

Empirical Research in Assessment and IEP Issues

In the previous section, many experts in the field of Autism Spectrum Disorders have discussed the importance of appropriate and thorough assessment to inform IEP practices. In order to examine what is known about assessment and IEP development for students with an ASD, the empirical research on this topic was reviewed.

Literature Search Methods

A two-step search method was utilized to identify studies related to assessment, eligibility, and IEP development for high school students with Autism Spectrum Disorders. The first search involved the following databases to search the literature on the University of Maryland System Research Port: *ERIC*, *Social Sciences Citation Index*, *Education Research Complete* (EBSCO), *PsychINFO*, *Medline* (CSA), *Medline* (EBSCO), *PsychARTICLES*, and *Psychology & Behavioral Science*. The search words used were: autism, assessment, programming, services, IEP, functional assessment, adaptive behavior, secondary, and high school. This search resulted in a very large number of studies, which were then scanned for the following criteria: included high school age students with an ASD, incorporated assessment or IEP development issues, and occurred within the last 10 years. Five studies were found to match the criteria. An ancestral search of the five studies was conducted and any other citations that were closely related but did not meet all the criteria, along with additional literature references used in this chapter to find studies that met the criteria for inclusion in this review. This provided an additional seven studies. An overview of the 12 studies is provided in Appendix A.

Review of the Empirical Studies

The studies in this area centered on different issues. Three studies focused on assessment (Herzinger & Campbell, 2007; Luiselli, Campbell, Cannon, DiPietro, Ellis, Tar, & Lifer, 2001; Venter, Lord, & Schopler, 1992). Three studies focused on issues of disabilities (Cederlund, Hagberg, Billstedt, Gillberg, & Gillberg, 2008; Channon, Charman, Heap, Crawford, & Rios, 2001; Saulnier & Klin, 2007). Programming issues were the focus of five studies (Callahan, Henson, & Cowan, 2008; Dymond, Gilson, & Myran, 2007; Etscheidt, 2003; Etscheidt, 2006; White, Scahill, Klin, Koenig, & Volkmar, 2007). The final study focused on views of students with an ASD and their high school experience (Humphrey & Lewis, 2008).

The design of the studies for the most part was descriptive in nature (Callahan, Henson, & Cowan, 2008; Cederlund et al., 2008; Dymond, Gilson, & Myran, 2007; Etscheidt, 2003; Etscheidt, 2006; Humphrey & Lewis, 2008; Luiselli et al., 2001; Saulnier & Klin, 2007; Venter, Lord, & Schopler, 1992; White et al., 2007). Three studies were also correlational (Saulnier & Klin, 2007; Venter, Lord, & Schopler, 1992; White et al., 2007). Two were causal in nature (Channon et al., 2001; Herzinger & Campbell, 2007).

The subjects of all studies were children or adults with an ASD. Five studies used a range of subjects from a young age to teens or adulthood (Cederlund et al., 2008; Dymond, Gilson & Myran, 2007; Herzinger & Campbell, 2007; Saulnier & Klin, 2007; White et al., 2007). Three studies included only adolescent students (Channon et al., 2001; Humphrey & Lewis, 2008; Venter, Lord, & Schopler, 1992). Three studies focused

on schools or agencies rather than students (Callahan, Henson, & Cowan 2008; Dymond, Gilson, & Myran, 2007; Luiselli et al., 2001).

Surveys or interviews were used in four studies (Callahan, Henson, & Cowan 2008; Dymond, Gilson, & Myran, 2007; Humphrey & Lewis, 2008; Luiselli et al., 2001). The analysis of assessment data was used in five studies (Cederlund et al., 2001; Channon et al., 2008; Saulnier & Klin, 2007; Venter, Lord, & Schopler, 1992; White et al., 2007). Factor analysis of legal cases was used in two studies (Etscheidt, 2006; Etscheidt, 2003). One study compared types of functional behavioral assessment to determine which worked best (Herzinger & Campbell, 2007).

Assessment Research

Using a survey, Luiselli et al. (2001) investigated what assessment instruments were routinely used in different types of service centers for students with an ASD of all ages. The authors found the most often used instruments were *Vineland Adaptive Behavior Scales*, *Peabody Picture Vocabulary Scale*, *Bayley Scale of Infant Development*, *Peabody Motor Scales*, and the *Visual Motor Integration Test*. This study encompassed the full range of school age students, however the return rate of the surveys was only 17.8%. The participating agencies were identified through the Autism Research Center. It is clear from the titles that a number of these tests are not geared to adolescents. Standardized instruments were most often used during initial diagnosis. Instruments were not routinely used for annual, semiannual, discharge, or post discharge evaluation.

Venter, Lord, and Schopler (1992) investigated cognitive and behavior measures as predictive tools for attainment in 58 students with an ASD who were followed for eight years. Early measures included: *Vineland Adaptive Behavior Scales*, scores on

psychometric and language tests, parent interview, and direct observation. Follow-up measures given 8 years later included: *Wechsler Intelligence Test*, *Vineland Adaptive Behavior Scales*, *Peabody Picture Vocabulary Test*, *Raven's Progressive Matrices*, *Neale Analysis of Reading*, *Schonell Graded Spelling Test*, and a test of oral comprehension discourse designed for this study; additionally, parents were given the *Autism Diagnostic Observation Schedule* interview. Complex analyses were used to compare the two sets of evaluation data to include standard scores, regression age equivalents, correlation coefficients, z-scores, and chi-square tests. They found scores on the *Vineland Adaptive Behavior Scales* were markedly below intelligence scores. The onset of speech before the age of 5 was a strong early predictor of positive outcomes for children with an ASD. Verbal IQs and strong comprehension scores showed the best outcomes for students. They reported achievement levels for students with ASD were still better than seen 15-20 years ago but felt that now the emphasis should be on social and adaptive skill outcomes.

Saulnier and Klin (2007) found similar results when examining the *Vineland Adaptive Behavior Scales* and *Autism Diagnostic Observation Scale* scores among a group of males with autism and a group of males with Asperger syndrome (AS), ages 7-18. Scores on these two instruments were examined in relationship to age and IQ. The participants had IQs greater than 70. They found both groups had *Vineland* communication scores that were over two standard deviations below their Verbal IQ scores. *Vineland* socialization scores were three standard deviations below their full-scale IQ scores. The two groups did not differ in their Performance IQ score, but Full scale and Verbal IQ scores were significantly higher for the group with AS. The authors stated the results of this study highlight the need to improve interventions and services in

the area of adaptive functioning and this emphasis should intensify, as the student gets older.

Cederlund et al. (2008) also found males with Asperger syndrome between the ages of 16-36 had worse outcomes than expected considering their IQs were within the normal range. Seventy males with Asperger syndrome and 70 males with autism were followed up more than 5 years after original diagnosis. Follow-up instruments included: overall clinical assessments, *Diagnostic Interview for Social and Communication Disorders*, *Wechsler Intelligence Scales*, *Vineland Adaptive Behavior Scales*, and *Global Assessment of Functioning Scale*. The outcome criteria used for this study were based on criteria published by Lotter (1978). Chi-square tests were used to compare group frequencies on the criteria. The authors also supported the Verbal Intelligence Quotient (VIQ) as a predictor of better outcome (employment, independent living, further education, and friendship). The authors felt strongly that medical, social, and occupational services must be provided to ensure more successful outcomes for these students with ASDs.

Channon et al. (2001) compared two groups of adolescents aged 11-19, one group typically developing and one diagnosed with AS on an assessment of real-life-type problem solving. The groups were matched on nonverbal mental ability and on a measure of expressive and receptive language ability. Videotaped presentations of awkward everyday situations were shown to the participants and then they were asked to answer a series of questions. They were asked to restate the situation, give as many potential solutions within two minutes, and then select the best possible solution for the main character and then the best solution for themselves. When finished they were to

rate their satisfaction with their answers. Responses were scored using three criteria: problem appreciation, social appropriateness, and effectiveness. They found the group of students with AS performed significantly below the level of the typically developing group. The group of students with AS needed many prompts to remember what had happened in the scenario presented, the quality of their solutions to problems presented were poorer, and the quality of what they chose as the best solution and their personal solution was poorer than the typically developing group. This study highlighted the difficulty secondary students with AS have with reading social situations and determining how to deal with them.

Herzinger and Campbell (2007) investigated the effectiveness of different types of functional behavior assessments (FBA) with participants with an ASD. This study involved a meta-analysis of 57 articles with participants with an ASD aged 3-49. They found descriptive methodologies were just as effective as experimental methodologies for positive outcomes, however if suppression of behavior was the goal, than an experimental methodology was more effective for positive outcomes. Although most studies reviewed involved experimental methodologies, a descriptive methodology is much more practical within a school setting and may provide more information involving a wider set of behaviors than when using an experimental methodology.

IEP Research

Etscheidt (2003) reviewed 68 published legal cases occurring between 1997-2002 involving students with an ASD and IEP issues and found three primary factors that lead to judicial decisions: the IEP must be matched to evaluation data (9 cases out of 21 decisions supported the school district), IEP team members must be qualified to develop

programs (all 9 case decisions supported the school district), and the methodology provided must assist the student's achievement of IEP goals (8 out of 9 case decisions supported the school district). Etscheidt (2006) further investigated 52 published legal cases occurring after the changes in 1997 to IDEA law that involved Behavior Improvement Plans (BIPs) and found that although problems behaviors were clearly identified, school personnel had not always addressed them through the provision of a BIP. There were also problems with the BIP being informed by assessment and individualized for the specific child and behavior. Plans did not always include a positive change support and were not always implemented.

White et al. (2007), in a study involving 101 students aged 5-21, found more students diagnosed with AS and PDD-NOS were in general education classes in each grade level than were students diagnosed with autism. The most frequently reported services students with an ASD received were speech/language followed by physical/occupational therapy, and then academic tutoring. They found social skills intervention was reported far less frequently and decreased in higher grades. Low IQ and *Vineland Adaptive Behavior Scales* scores were predictive of special education placement. Students who moved to increased special education placement had greater social deficits.

Dymond, Gilson, and Myran (2007) surveyed a sample of 783 parents of children aged birth to 22 with an ASD for recommendations on improving programs for students with ASDs. The results of this study produced four themes. Within the theme of improving quality, quantity, and accessibility of services, parents wanted to see more applied behavior analysis, communication training, respite care, social skills training,

early intervention, and transition services. The other themes included education and training of service providers, increased funding, and creating appropriate placements and programs. Overall parents were concerned the needs of their child were not currently being met.

Callahan, Henson, and Cowan (2008) also investigated parents' perceptions of program components for children with an ASD, along with the perceptions of teachers and administrators. Program components were rated based on five functional areas: individual programming, data collection, empirically based-strategies, active collaboration, and focus on long-term outcomes. The results showed overwhelming support for these areas in programs for students with an ASD. Parental ratings of the importance of these five program areas were the highest and administrator ratings tended to be the lowest. Narrative comments from the survey suggested current programs fell short of the ideal. All respondents felt many current components of programs serving students with ASDs were inadequate.

Humphrey and Lewis (2008) examined the experiences of secondary students with Asperger syndrome aged 11-17. Structured interviews, pupil diaries, and pupil drawings were analyzed using interpretive phenomenological analysis. Five themes were discussed: characteristics of Asperger syndrome, relationship with peers, anxiety and stress in school, working with staff, and negotiating differences. Students reported high rates of bullying and isolation. Overall students felt their needs were not being met in secondary school.

Summary of the Research and Implications

Taken as a whole the reviewed studies highlight current issues related to assessment and program planning for adolescents with an ASD. Although it is commonly agreed that appropriate assessment is the best way to inform program planning, there is little standardized assessment procedures happening with this population to determine functioning level. Overall the studies that focused on assessment tools showed discrepancies between IQ and actual every day functioning with adolescent students having an ASD. Studies reviewed emphasized the use of adaptive behavior or functional assessment as essential for positive treatment outcomes (Channon et al., 2001; Herziger & Campbell, 2007; Saulnier & Klin, 2007; White et al., 2007). However, the emphasis in high school tends to be on the academic curriculum and not on areas of disability. It appears the academic emphasis seems to be getting in the way of appropriate, global programming for students with an ASD. The “normal” or “near normal” IQ scores of students with an ASD leads educators to think these students will perform well academically to succeed in high school and then in life after school. The reviewed studies showed this is not the case. Several studies investigated the areas of disability and found deficits in social, comprehension, and communication still lagging far behind each subject’s IQ (Cederlund et al., 2008; Saulnier & Klin, 2007; Venter, Lord, & Schoper, 1992). These factors are often the main areas that affect one’s success in life. Many parents and school staff have a good idea of what an appropriate program for students with an ASD would include but find current programs fall short (Callahan, Henson, & Cowan, 2008; Dymond, Gilson, & Myran, 2007). Many parents and students reported the needs for a successful, productive life are not being met in current high

school programs. It appears more investigation into the areas of social, behavioral, and communication skills need to be pursued to inform programming for successful outcomes for high school students with an ASD. For these reasons it is imperative to investigate how personnel in the school system are assessing and developing IEPs for high students with ASDs to ensure they are prepared for life after high school and the challenges of adulthood.

CHAPTER III

Method

The purpose of this study was to examine assessment and IEP development for high school students with an ASD in Region 1 of a school system that serves a large number of students from military families, specifically in the functioning areas of social, behavioral, and communication skills as manifested in the electronic records available to the researcher. Although some students with disabilities in high school may be involved in an initial determination for eligibility for special education, most high school students undergo a re-evaluation for continued eligibility. Special education students are required by law to be re-evaluated for eligibility every three years to determine if the student's continuation of eligibility for special education services and if any additions or modifications to the special education and related services are needed. In the school system, the Case Study Committee (CSC) begins this process with a review of all existing student records to examine the student's present levels of performance and educational need. If the CSC decides more information is needed to make eligibility determinations or parents ask for assessments, then an Assessment Plan is developed which identifies the assessments to be carried out. The school system also requires that eligibility be determined with the system's eligibility requirements for each student entering the system on an IEP based on recent assessment within the last calendar year. Assessment Plans might also be developed for a special education student in high school when subsequent assessments are required such as a Transition Report for transition planning by age 16, behavioral difficulties requiring a Functional Behavior Analysis, or the CSC decides additional assessments are required to determine other areas of need.

The Autism Spectrum Disorder Assessment Plan form is included in Appendix B. After the Assessment Plan is developed, assessments are carried out and documented in written assessment reports. The results of the assessments are shared at a meeting that includes parents, the student, if appropriate, a general education teacher, a special education teacher, and a school administrator. Additional members may be included as deemed appropriate. The CSC reviews the assessment data/reports and uses this information to determine any of the following: eligibility (initial or continued) for special education services; if a transition plan needs to be developed; and/or possible changes to the IEP regarding special education services. At this time, an Eligibility Report (refer to Appendix C) is prepared summarizing the results of the assessments, documenting the eligibility process, and stating the student's current levels of performance and areas of educational need.

Research Questions

The following three research questions addressed the examination of assessment and IEP development for high school students with an ASD in Region 1 of the school system, specifically in the functioning areas of social, behavioral, and communication skills, as manifested in electronic records available to the researcher.

1. Have current levels of social, behavioral, and communication functioning been both assessed and reported on the most current Eligibility Report and any subsequent assessment among high school students identified as having an ASD?
2. What are the instruments used in assessing social, behavioral, and communication functioning among high school students who have been identified as having an ASD?

3. What are the goals and objectives from the most current IEP in the functioning areas of social, behavioral, and communication among high school students identified as having an ASD?

Design of the Study

The design of this study was descriptive in nature utilizing structured record reviews. An attempt was made to document how assessment and IEP development for high school students with an ASD in Region 1 of the school system was conducted, specifically in the functioning areas of social, behavioral, and communication skills, as manifested in the electronic records available to the researcher. The latest Assessment Plan and Eligibility Report was the starting point of record investigation for each student with an ASD enrolled in Region 1 of the school system during the 2009-2010 school year. Any subsequent Assessment Plans, after the latest Eligibility Report were also examined. All current Assessment Plans and Eligibility Reports were examined to determine what assessments had been requested and assessed (Question #1). The assessments instruments used for assessing social, behavioral, and communication skills were documented by reviewing the same forms (Questions # 2). The IEP was examined to determine what goals and objectives were written in the functioning areas of social, behavioral, and communication (Question #3).

Participants/Sample

A list of all students, obtained from the school system headquarters, enrolled in Region 1 high schools with eligibility criteria of having an ASD was used to identify the participant group. An attempt was made to attain permission for all high school students with an ASD eligibility in Region 1. Contact was made with the CSC chairpersons from

each high school for their assistance in the permission process. Permission was sought from the parents of these students for access to the students' electronic special education records. The researcher was allowed to send packets of permission forms to the CSC chairperson to send out to parents of students with an eligibility of ASD. Contact was allowed only once with CSC chairpersons and no follow up was included. It was unclear how many of the CSC chairpersons actually sent out the parent permissions. CSC chairpersons may not have sent out the permission to parents due to workload, concern over parent's responses, or other reasons. If the permissions were not sent, this may have greatly reduced the number of participants available in this study. Refer to Appendix D for the letter to CSC chairpersons and Appendix E for the parent cover letter.

Seventy-four parent permission requests were sent to the Case Study Committee (CSC) chairpersons from each of the 27 high schools in Region 1. Out of 74 permission requests sent to CSC chairpersons, 16 (21.6%) were returned to the researcher with signed permission for electronic student file review. From the 27 high schools in Region 1, 19 schools included students with an eligibility of ASD. The 16 participants in this study came from 7 of these 19 schools. Of the 16 participants, two students were 14, four students were 15, five students were 16, and five students were 17 years old at the time of their last IEP meeting. On the current IEP retrieved, one student was listed as a 9th grader, nine were listed as 10th graders, five were listed as 11th graders, and one was listed as a 12th grader. All participants were male.

Construction of Data Collection Recording Form

Excent is a web-based computerized system of record management for special education implementation for the school system. It is a comprehensive file management

system that establishes a special education record on all students referred for special education and those currently receiving special education. *Excent* manages the movement through and documentation of all special education processes. It generates the majority of required forms and letters using the data entered before, during, and after all CSC meetings. The Assessment Plan, Eligibility Report, and IEP of each student were examined through the *Excent* data management system.

Information was documented on a recording form created specifically for this study (refer to Appendix F). Since there were no instruments previously developed for this purpose, there was a need to develop and operationalize a recording system to accurately document the information. Key terms (language and organization) in the assessment process were identified, operationalized, and turned into a recording form. The recording form was then screened for ambiguity and content by one doctoral candidate studying special education, two teachers of special education, and one lay person. Feedback was received and incorporated into revisions of the form.

Method of Record Review

After dissemination of the permission forms to CSC chairpersons and the construction of the data recording form, two months were allowed for the return of parent permission forms to the researcher. Follow up contact with CSC chairs was not approved for this study. After this two month time period the researcher coordinated with the school system headquarters to provide computer access to the students' electronic records. Electronic records of each participant were accessed through the researcher's school system computer at a Region 1 school. All records were accessed through the computer and printed on the same day. Each student was randomly assigned a number

and all documents for a participant were placed in a manila folder notated with the assigned number. A record review protocol was developed to ensure all records were reviewed and information recorded consistently. The record review protocol is included in Appendix G. All records available to the researcher are also records that are provided to parents by the school.

A seven-step process was followed when reviewing each student's records. First, records were reviewed for demographic information including the student's age, grade, and gender along with the date of the last IEP and type of IEP (i.e., initial, annual, modified). Second, the Assessment Plan (refer to Appendix B), a document that states what areas will be assessed for a student to determine eligibility under an area of disability, was reviewed to determine the reason for assessment and what assessments the CSC requested at the time of the student's last eligibility meeting for special education services. When eligibility for a possible autism spectrum disorder is sought, the *Excent* system automatically lists eight domains that must be considered by the CSC but not all required, for assessment. The eight domains consist of:

- 1) Vision and Hearing (generally a form filled out by a nurse)
- 2) Social, Family, and Medical History (generally a form filled out by the parents)
- 3) Record Review (generally a template report listing previous testing, grades, services, etc.)
- 4) Medical Evaluation (format determined by the medical staff)
- 5) Educational Performance (standardized tests, observations, and checklists to show student academic performance)

- 6) Language Assessment (standardized language and communication tests, observations, and checklists)
- 7) Observation (no specific format but typically an anecdotal account of a student observation)
- 8) Educational Impact Analysis (generally a form filled out by a teacher on present functioning issues and modifications in use)

Any other assessment, outside the realm of these eight domains, deemed needed by the CSC for the Assessment Plan could have been requested. Henceforth these assessments are referred to as “additional assessments” and could include assessments in adaptive behavior (skills required to function in daily life routines), transition (skills needed for post school competence), intelligence (an IQ test), social skills, motor skills, etc.

Third in the data collection process, the Eligibility Report (refer to Appendix C), a document that summarizes assessment data including assessments given, results of those assessments, the student’s current levels of performance, and the student’s areas of educational need, was reviewed to see if assessments requested on the Assessment Plan were listed or indicated as being assessed in the Tests/Assessments Administered section or within the body of the report. Fourth and very important, it was noted if results of each assessment listed in the Eligibility Report were reported.

Fifth, each student’s file was reviewed for any assessments requested after the Eligibility Report was filed and if so, the purpose for the assessment was recorded. Assessments requested after the Eligibility Report was completed are referred to as “subsequent assessments”. Subsequent assessments may be asked for by the CSC at any

time for a number of reasons including a Transition Report when the student reaches the age for a transition assessment, the student may have behavioral problems that require an investigation, or the CSC needs other information to inform programming.

Sixth, if assessment results were found under any domain, or as an additional assessment, or as a subsequent assessment, the results were reviewed to see if social, behavioral, or communication information was included. The functioning areas of social, behavioral, and communication share many qualities and overlap in their functions. For the purpose of this study, these key concepts were defined as follows. A social assessment investigates how the student relates or interacts with others. Social goals and objectives are the expected outcomes that pertain to how the student relates or interacts with others. The commonly occurring verbs within these goals and objectives are: participate, join, play, engage, socialize, and interact. A behavioral assessment investigates how the student acts or responds to stimuli in his/her environment. Behavioral goals and objectives are the expected outcomes that pertain to the student's actions or response to stimuli in the environment. The commonly occurring verbs within these goals and objectives are: accept, refrain, comply, behave, practice, demonstrate, respond, and give. A communication assessment investigates how the student expresses or receives verbal and non-verbal language to and from others. Communication goals and objectives are the expected outcomes that pertain to the student's verbal and nonverbal expressive and receptive language. The commonly occurring verbs within these goals and objectives are: express, ask, communicate, request, state, verbalize, summarize, answer, and paraphrase.

The seventh and final step of the record review process involved reviewing each student's current IEP and listing goals and objectives determined to be social, behavioral, or communication in nature (see Step 6 above for definition). The school system's *Goals and Objectives Handbook* contains goals and objectives for writing IEPs for students receiving special education and related services. The goals and objectives are also available for selection and use through *Excent*. The following process was used to determine whether IEP goals were considered social, behavioral, and communication. First, the researcher examined the *Goals and Objectives Handbook*, identified five headings including Career/Work, Communication, Functional Life, Learning Strategies, and Social/Emotional Skills that aligned to the definition of social, behavioral, or communication skills, and eliminated headings that did not align (e.g., Reading, Motor, Mathematics). Next the researcher identified specific goals and objectives under the five headings that matched the definition for social, behavioral, or communication areas as defined above. Lastly, two independent reviewers repeated the process for identifying goals and objectives that matched the definition for social, behavioral, or communication areas. Reliability was calculated and a 91.8% agreement was obtained using the item-by-item reliability formula: $\frac{\text{agreement (occurrence and nonoccurrence)}}{\text{agreements plus disagreements}} \times 100$.

Although these goals and objectives were numbered in the handbook, they did not print out from *Excent* with numbers on the IEP. Each individual's IEP goals and objectives were coded to match the numbers from the handbook, tallied, and counted. The IEPs also contained goals and objectives not from the handbook. These outlying goals and objectives were also coded based on the definitions given previously for social,

behavioral, and communication.

Reliability

After all 16 sets of records were reviewed and information recorded on the recording form by the researcher, five complete sets of records (31.25%) were then checked by reviewer 2, a doctoral student in special education who was knowledgeable of the assessment and eligibility process, for inter-rater reliability. Reviewer 2, who was also an employee of Region 1, was trained in the use of the recording form using the record review protocol found in Appendix G. After the five sets of records were randomly chosen for determining inter-rater reliability, two additional records were randomly chosen for practice using the record review protocol. The researcher and reviewer 2 practiced using the protocol and recording form with the two sets of records selected for reliability training. After training, reviewer 2 reviewed the five sets of records independently and recorded information on the recording form.

The record review form for each of the five sets of records completed by both the researcher and reviewer 2 were checked using the item-by-item reliability agreement method. The formula used for calculating inter-rater reliability was agreement (occurrence and nonoccurrence) divided by agreements plus disagreements multiplied by 100 to obtain the percent of agreement for each record. The average reliability across all five sets of records was 97.78%, ranging from 94.24% to 99.55%.

CHAPTER IV

Results

The purpose of this study was to investigate assessment and IEP development among high school students with an Autism Spectrum Disorders (ASD), specifically in the functioning areas of social, behavioral, and communication skills, as manifested in electronic records available to the researcher. These skills are crucial to becoming a successful adult and therefore it is essential to determine how personnel in secondary schools are currently addressing assessment and IEP development for this population. From obtained information, it may be determined what is successful to help students with an ASD achieve their highest developmental potential and what practices might need further investigation, require change, or require more training for staff.

Research Question 1

Have current levels of social, behavioral, and communication functioning been assessed and reported on the most current Eligibility Report and any subsequent assessment among high school students identified as having an Autism Spectrum Disorder (ASD)? The current Eligibility Report, retrieved at the end of the 2009-2010 school year, could have contained assessments that could have taken place during the 2007/2008, 2008/2009, or 2009/2010 school years. For data analysis, the assessments were coded by the researcher to document which of the eight domains from the Assessment Plan, any additional assessments, or any subsequent assessments were requested, assessed, and reported. Frequency scores of the total number of assessments that were requested, assessed, and reported were determined for each student. Each assessment was then further coded for information that was social, behavioral, and/or

communication for each student and frequency scores were determined and reported for each of the three functioning areas. All scores were derived using SPSS (*IBM® SPSS® Standard GradPack 18 for Mac*).

Once electronic records were retrieved, it became evident that only the Assessment Plans and Eligibility Reports were available within the *Excent* system. If a subsequent assessment was requested by the CSC and found in *Excent*, it did not contain electronic information regarding the assessment results. Therefore, the number and type of subsequent assessments requested by the CSC after the Eligibility Report was filed could only be documented, not the outcome of the assessment. Only four students had records in which subsequent assessments were requested after the Eligibility Report was completed. Of these four records, two were requests for a Transition Report due to age, one was a request for a Behavior Assessment due to problem behaviors, and one was a Language Assessment. Again, no information on the results of these assessments was available.

Vision and hearing screenings (Domain 1) were documented on the researcher's recording form as: (a) currently assessed within the last year or (b) not current within the last year or not recorded. Eleven of the sixteen records (68.8%) listed current vision and hearing assessment within the last year. Tables 1 and 2 provide information on the remaining seven domain areas (Domains 2-8) in addition to any additional assessments areas (e.g., transition, intelligence, adaptive behavior, motor, social) as to how many assessments on the 16 sets of student records: (a) were requested on the Assessment Plan by domain or as an additional assessment, (b) whether the requested domains or additional assessments were indicated as being assessed on the Eligibility Report; (c)

whether the results of an assessment were reported on the Eligibility Report, and (d) whether the domain and additional assessments included social information (e.g., score on a social assessment or an observational comment such as “John interacts with only one student in Science class”), (e) whether the domain and additional assessments included behavioral information (e.g., score on a behavioral checklist or an observational comment such as “John threw his pencil when he wasn’t called on”), and (f) whether the domain and additional assessments included communication information (e.g., score on a language evaluation or an observational comment such as “John demonstrated understanding of the story by verbally summarizing it to the class”).

Table 1

Number and Percent of Assessments by Domain¹ Requested, Assessed, Reported, and Included Social, Behavioral, or Communication Information across 16 Sets of Records

Domain Area on Assessment Plan	Requested on Assessment Plan	Indicated Assessed on Eligibility Report	Results Reported on Eligibility Report	Included Social Information	Included Behavioral Information	Included Communication Information
2. Social, Family, and Medical History	12 75%	11 68.8%	10 62.5%	6 37.5%	6 37.5%	4 25%
3. Record Review	13 81.3%	13 81.3%	12 75%	9 56.3%	7 43.8%	9 56.3%
4. Medical Evaluation	10 62.5%	7 43.8%	8 50%	8 50%	5 31.3%	3 18.8%
5. Educational Performance Achievement	13 81.3%	11 68.8%	10 62.5%	2 12.5%	3 18.8%	3 18.8%
6. Language Assessment	12 75%	13 81.3%	12 75%	5 31.3%	3 18.8%	12 75%
7. Observation	14 87.5%	13 81.3%	11 68.8%	7 43.8%	11 68.8%	6 37.5%
8. Educational Impact Analysis	10 62.5%	8 50%	5 31.3%	2 12.5%	5 31.3%	2 12.5%

¹ Domain 1, Vision and Hearing, screening was previously reported and not included.

Across the seven domain areas on the Assessment Plan, the number of assessments requested per domain ranged from 10 to 14 out of 16 sets of records.

Observation was the most frequently requested domain on students' Assessment Plan with 14 out of 16 (87.5%) requests found. Medical Evaluation and Educational Impact Analysis were tied as the least requested domain on the Assessment Plan with 10 out of 16 (62.5%) requests found.

Across the seven domain areas on the Eligibility Report, the number of assessments per domain indicated as being assessed ranged from 7 to 13 out of 16 sets of

records. Three domains were indicated most frequently (13 out of 16 or 81.3%) as being assessed: Record Review, Language Assessment, and Observation. Only seven of the 16 reports reviewed (43.8%) listed an assessment in Medical Evaluation, the lowest number indicated of any domain.

Across the seven domain areas on the Eligibility Report, the number of assessments per domain in which results were reported ranged from 5 to 12 out of 16 sets of records. Record Review and Language Assessment were the most frequently reported domains with 12 out of 16 (75%) records showing results. Results on the Educational Impact Analysis assessments were the least often reported on the Eligibility Report with only 5 out of 16 (31.3 %) records showing results.

Assessment information on social functioning (refer to Table 1) was most frequently found in the Record Review domain in which information on social functioning was extracted from 9 out of 16 (56.3%) records. Social functioning information was least likely to be found on the Educational Performance or Educational Impact Analysis assessments only occurring in 2 out of 16 (12.5%) records. Assessment information about behavioral functioning was most frequently found in the Observation domain in 11 out of 16 (68.8%) records. It was least frequently found in Educational Performance or Language Assessment on only 3 out of 16 (18.8%) records. Assessment information about communication functioning was most frequently found in the Language Assessment domain on 12 out of 16 (75%) records. It was least frequently found in the Educational Impact Analysis on only 2 out of 16 (12.5%) records.

Table 2 shows the results of the number of additional assessments beyond the eight domain areas the CSC requested on the Assessment Plan, indicated assessed on the

Eligibility Report, and reported results on the Eligibility Report. Transition assessments were most often requested, assessed, and reported. Behavior assessments were the least requested and found in only one record, and then it was not assessed nor reported.

Table 2

Number and Percent of Additional Assessments Requested, Assessed, Reported, and Included Social, Behavioral, or Communication Information across 16 Sets of Records

Additional Assessment Areas	Requested on Assessment Plan	Indicated Assessed on Eligibility Report	Results Reported on Eligibility Report	Included Social Information	Included Behavioral Information	Included Communication Information
Transition Assessment	11 68.8%	9 56.3%	8 50%	4 25%	6 37.5%	3 18.8%
Intellectual Assessment	9 56.3%	6 37.5%	5 31.3%	4 25%	2 12.5%	2 12.5%
Social Assessment	4 25%	3 18.8%	2 12.5%	2 12.5%	1 6.25%	1 6.25%
Adaptive Behavior Assessment	3 18.8%	1 6.25%	1 6.25%	0 0%	0 0%	0 0%
Information Processing	2 12.5%	0 0%	0 0%	0 0%	0 0%	0 0%
Motor Evaluation	2 12.5%	1 6.2%	1 6.2%	0 0%	0 0%	0 0%
Behavior Assessment	1 6.2%	0 0%	0 0%	0 0%	0 0%	0 0%

However, the results of the number of assessments requested by domain and any additional assessments listed on the Assessment Plan did not directly correspond to the assessments indicated as being assessed on the Eligibility Report. That is, some assessments were requested, but they were not carried out. Conversely, the assessments indicated as being assessed on the Eligibility Report did not directly correspond to the assessments requested on the Assessment Plan. That is, some assessments were reported as being assessed, but they had not been requested. A one to one correspondence was carried out to ascertain what actually occurred (refer to Table 3) as to the number (and

percent) of assessments requested and assessed (column B), the number of assessments requested, but not assessed (column C), the number of assessments assessed, but not requested (column E), and the percent of assessments assessed that had been requested (Column F).

The average percent of assessments requested across the seven domain areas (Table 3) that were also assessed (column B) was 74%, with a range of 60% (Medical Evaluation and Educational Impact Analysis) to 84.6% (Record Review). Additional assessments requested fared even lower in their actual assessed rate. The average percent of additional assessment areas requested and assessed was 38.9%, with a range of 0% (Information Processing and Behavior Assessment) to 72.7% (Transition Assessment).

The average percent of assessments across the seven domain areas that were assessed on the Eligibility Report and were requested on the Assessment Plan (column F) was 83%, with a range from 75% (Educational Impact Analysis) to 90.9% (Educational Performance Achievement). The average percent of additional assessments that were assessed and had been requested was 65%, with a range of 0% (Information Processing and Behavior Assessment) to 100% (Intellectual Assessment, Adaptive Behavior, and Motor Evaluation).

Table 3

One to One Correspondence of Requested Assessments on Assessment Plans and Assessed Assessments on Eligibility Reports by Domain¹ and Additional Assessments Across 16 Sets of Student Records

Domain Area	A. Number of Assessments Requested on Assessment Plan (Refer to Tables 2 & 3)	B. Number/ % of Assessments Requested on Assessment Plan AND Assessed on Eligibility Report	C. Number of Assessments Requested on Assessment Plan but NOT Assessed on Eligibility Report	D. Number of Assessments Assessed on Eligibility Report (Refer to Tables 2 & 3)	E. Number of Assessments Assessed on Eligibility Report but NOT Requested on Assessment Plan	F. Percent of Assessments Assessed on Eligibility Report that were Requested on the Assessment Plan
2. Social, Family and Medical History	12	9 /75%	3	11	2	81.8%
3. Record Review	13	11/84.6%	2	13	2	84.6%
4. Medical Evaluation	10	6 /60%	4	7	1	85.7%
5. Educational Performance Achievement	13	10 /76.9%	3	11	1	90.9%
6. Language Assessment	12	10/83.3%	2	13	3	76.9%
7. Observation	14	11/78.5%	3	13	2	84.6%
8. Educational Impact Analysis	10	6/60%	4	8	2	75%

Additional Assessments	A. Number of Assessments Requested on Assessment Plan (Refer to Tables 2 &3)	B. Number/% of Assessments Requested on Assessment Plan AND Assessed on Eligibility Report	C. Number of Assessments Requested on Assessment Plan but NOT Assessed on Eligibility Report	D. Number of Assessments Assessed on Eligibility Report (Refer to Tables 2 & 3)	E. Number of Assessments Assessed on Eligibility Report but NOT Requested on Assessment Plan	F. Percent of Assessments Assessed on Eligibility Report that were Requested on the Assessment Plan
Transition Assessment	11	8/73%	3	9	1	88.8%
Intellectual Assessment	9	6/66.6%	3	6	0	100%
Social Assessment	4	2/50%	2	3	1	66%
Adaptive Assessment	3	1/33.3%	2	1	0	100%
Information Processing	2	0/ 0%	2	0	0	0%
Motor Evaluation	2	1/50%	1	1	0	100%
Behavior Assessment	1	0/0%	1	0	0	0%

¹ Domain 1, Vision and Hearing, screening was previously reported and not included.

Research Question 2

What are the instruments used in assessing social, behavioral, and communication functioning among high school students who have been identified as having an ASD? For data analysis, a list of all assessment instruments by domain and by additional assessment areas was developed and frequencies reported on the number of assessment instruments cited. There were three domains and one additional assessment area that listed specific assessment instruments by name: Medical Evaluation, Educational Performance, Language Assessment, and Intellectual Assessment. A student record could have cited any combination of assessment instruments listed under each of the three domains and/or one additional assessment area. Information on social, behavioral, or communication areas was coded from the results of each assessment instrument listed and frequency scores were reported for each functioning area. Table 4 presents the name, number of records that reported assessment instruments by name, the frequency each assessment instrument was cited, and the inclusion of social, behavioral, and communication information.

Table 4

Name, Number of Assessment Instruments Cited, and Included Social, Behavioral, or Communication Information across 16 Sets of Records

Assessment Instruments	Number of Assessment Instruments Cited	Included Social Information	Included Behavioral Information	Included Communication Information
Medical Evaluation 2 records reported use of:				
ASEBA	2	2	1	0
CARS	1	1	1	0
ADOS	1	1	1	0
Educational Performance 6 records reported use of:				
WJIII	3	0	1	2
KTEA-2	3	0	0	0
Language Assessment 12 records reported use of:				
CELF-4	7	3	1	7
EOWPVT	1	0	0	1
ROWPVT	1	0	0	1
TOPL-2	2	2	0	2
CASL	4	3	0	4
OPE	6	0	0	0
LSA	2	1	1	2
PLI	1	0	1	1
EASIC-3	1	0	1	1
Intellectual Assessment 5 records reported use of:				
WISC-4	2	0	1	1
WAIS-IV	1	0	0	0
SB5	1	0	0	0
WJIII COG	1	0	0	0

The most frequently named assessment instrument was the *Clinical Evaluation of Language Fundamentals 4* (CELF-4) found listed in 7 out of 16

(43.8%) records. The *Oral Peripheral Exam* (OPE) was the next most frequently cited assessment instrument found in 6 out of 16 (37.5%) records. The *Comprehensive Assessment of Spoken Language* (CASL) was found on 4 out of 16 (25%) records. The *Woodcock-Johnson Test of Achievement 3* (WJIII) and *The Kauffman Test of Educational Achievement Second Edition* (KTEA-2) were reported on 3 out of 16 (18.8%) records. The *Achenbach System of Empirically Based Assessment* (ASEBA), *Test of Pragmatic Language Second Edition* (TOPL-2), *Language Sample Analysis* (LSA), and the *Wechsler Intelligence Scale for Children Fourth Edition* (WISC-IV) were cited on 2 out of 16 (12.5%) records. The *Child Autism Rating Scales* (CARS), the *Autism Diagnostic Observation Schedule* (ADOS), *The Expressive One Word Picture Vocabulary Test* (EOWPVT), the *Receptive One Word Picture Vocabulary Test* (ROWPVT), the *Parent Language Interview* (PLI), the *Evaluation of Acquired Skills in Communication Third Edition* (EASIC-3), the *Wechsler Adult Intelligence Scales Fourth Edition* (WAIS-IV), the *Stanford Binet Intelligence Test* (SB5), and the *Woodcock Johnson Test of Cognitive Abilities* (WJIIICOG) were reported only once out of 16 (6.3%) records .

The assessment instruments that yielded social functioning information most often were the CELF-4 and the CASL found in 3 out of 16 (18.8%) records. The assessment instrument that yielded behavioral functioning information most often was an Educational Performance Observation found in 2 out of 16 (12.5%) records. The assessment instrument that yielded communication functioning information most often was the CELF-4 at 7 out of 16 (43.8%) records. The

CASL produced communication functioning information in 4 out of 16 (25%) records.

Research Question 3

What are the goals and objectives from the most current IEP in the areas of social, behavioral, and communication among high school students identified as having an ASD? Of the sixteen students participating in the study, one student was found to be no longer eligible for special education services. So, of the sixteen records reviewed, there were only 15 IEPs that followed the current Eligibility Report. The total number of IEP goals on each document ranged from 4 to 15, with a mean of 8 goals. Across all 15 IEPs, collectively there were 14 different goals identified as being social, behavioral, or communication. The total number of these 14 goals found on each of the 15 IEPs ranged from 2-7, with a mean of 4 goals.

Table 5 presents the number and percent of the 15 IEPs which contained each of the 14 goals (and subordinate objectives) identified as social, behavioral, or communication. The goal most frequently used was Goal S165 *Improve Pragmatic Language Skills* found in 8 out of 15 (53.3%) IEPs. This was closely followed by Goal LS170 *Develop and Maintain the Ability to Function Independently in the General Education Classroom* found in 7 out of 15 (46.6%) IEPs. The next most frequently used goals were Goal S175 *Improve Semantic Skills by Strengthening Classification and Categorization Skills* and Goal LS180 *Advocate for Himself* both found in 5 out of 15 (33.3%) IEPs.

Table 5

Number and Percent of 15 IEPs with Specific Goals and Objectives Identified as Social, Behavioral, or Communication

Goals and Objectives Identified as Social, Behavioral, or Communication	Number and % Found on 15 IEPs
<i>S165 Improve pragmatic skills</i>	8 53.3%
S165.07 Adjust pitch, rate and volume of conversation to a variety of situations and settings	5 33.3%
S165.10 Establish maintain and appropriately terminate a topic of conversation	3 20%
S165.13 Transition to a new topic in conversation	2 13.3%
S165.17 Understand and use humor	2 13.3%
S165.25 Express opinions about issues providing a reason	2 13.3%
<i>S170 Improve verbal reasoning</i>	2 13.3%
<i>S175 Improve semantic skills by strengthening classification and categorization skills</i>	5 33.3%
S175.11 Complete verbal analogies	2 13.3%
S175.20 Understand/use idioms	2 13.3%
S175.24 Increase the understanding of multiple meaning words	2 13.3%
<i>S205 Process information presented orally</i>	2 13.3%
S205.05 Follow directions	2 13.3%
<i>LS115 Demonstrate time on task behavior</i>	4 26.6%
LS115.03 Increase time in continuous work periods	3 20%
LS115.03 Increase time in continuous work periods	3 20%
LS115.04 Decrease the number of supervisor contacts required to maintain continuous work	2 13.3%
<i>LS130 Organize information</i>	2 13.3%
<i>LS170 Develop and maintain the ability to function independently in the general education classroom</i>	7 46.6%
LS170.02 Seek assistance	3 20%
LS170.05 Increase the percentage of assignments turned in completed	2 13.3%
LS170.09 Participate in classroom activities	2 13.3%
LS170.13 Accept responsibility for tracking academic assignments, due dates, and requirements	4 26.7%
<i>LS180 Advocate for himself</i>	5 33.3%
LS180.01 Identify own strengths and weaknesses	3 20%
LS180.04 Ask for and use appropriate modifications	5 33.3%
LS180.03 Describe own learning needs to teachers	2 13.3%
<i>SE105 Demonstrate basic social skills</i>	4 26.6%
SE105.02 Attend to speaker	2 13.3%
SE105.03 Use appropriate social routines to summon or gain attention	2 13.3%
<i>SE135 Follow class routines</i>	2 13.3%
<i>SE140 Demonstrate self-control while waiting for assistance or attention</i>	3 20%
<i>SE145 Demonstrate self-control in interpersonal situations</i>	2 13.3%
<i>SE200 Demonstrate non-verbal communication</i>	2 13.3%
SE200.04 Monitor personal non-verbal communication skills	2 13.3%
<i>SE215 Demonstrate growth in interpersonal/social skills</i>	2 13.3%

The total number of objectives on each IEP ranged from 5 to 35, with a mean of 18.5 objectives. The total number of objectives on each IEP identified as being social, behavioral, or communication ranged from 2-19, with a mean of 9.8 objectives. Table 5 presents the most frequently cited objectives found on student IEPs under the 14 identified goals. Objectives used only once with just one student were not reported. Two most frequently cited objectives found on 5 out of 15 (33.3%) IEPs were Objective S165.07 Adjust pitch, rate and volume of conversation to a variety of situations and settings and Objective LS180.04 Ask for and use appropriate modifications. The next most frequently cited objective found on 4 out of 15 (26.7%) of the students' IEPs was Objective LS170.13 Accept responsibility for tracking academic assignments, due dates, and requirements. The following objectives were each cited on 3 out of 15 (20%) IEPs: Objective S165.10 Establish maintain and appropriately terminate a topic of conversation, Objective LS115.03 Increase time in continuous work periods, Objective LS115.06 Work independently, LS170.02 Seek assistance, and Objective LS180.01 Identify own strengths and weaknesses.

CHAPTER V

Discussion

The purpose of this study was to investigate assessment and IEP development among high school students with an Autism Spectrum Disorder (ASD) in Region 1 of a large school system that serves a large number of students from military families, specifically in the functioning areas of social, behavioral, and communication skills. These three skill areas encompass the diagnostic criteria for an ASD and are crucial skills to becoming a successful adult. The literature emphasizes the importance of appropriate assessment to inform program planning for students with an ASD (Klin, 2003; National Research Center, 2001). Saulnier and Klin (2007) strongly support the need for assessment to be functional in nature to determine how students with an ASD actually use their skills in natural settings. This study serves as a snapshot of what was occurring in Region 1 during assessment and IEP development for high school students with an ASD specifically in the areas of social, behavioral, and communication skills during the 2009-2010 school year as manifested in electronic records available to the researcher. Assessment and IEP development has not been adequately investigated for this population; therefore, it was important to determine whether educators implement the assessment process successfully and meaningfully.

Limitations of the Study

This study involved a small number of students. Only 16 students participated, representing 21.6% of all high school students from Region 1 identified as having an Autism Spectrum Disorder (ASD) during the 2009-2010

academic year. Parent permission requests were sent to CSC chairpersons at each high school to send out to parents of students with an ASD eligibility. The researcher was unable to follow up to determine if the permissions were sent out or to send an additional request or reminder. Also, the findings of this study may be adversely affected by the differences in staffing among schools, which may limit types of staff and services available. Some schools had ASD experts on staff and others did not. It is possible that practices among schools may be very different affecting how data were collected and recorded. Also, the school system had adopted a new web-based data system for Special Education, *Excent*, in 2008. There were a number of complications in implementing the new system that may have affected how data were recorded and subsequently retrieved for this study. Specifically in the first several months of implementation, there were difficulties in the assessment plan function and many plans were done off system, in hard copy, due to the difficulty. Once the difficulty was cleared up, all information was to be inserted into the web based program. This may not have taken place with all students so there may be paper records where no electronic records were found, and as such unavailable to the researcher.

Additionally, Eligibility Reports, which are intended to be a summary of all the assessment reports for a student, were reviewed for this study not the actual assessment reports, which were unavailable to the researcher. The quality of the Eligibility Reports may not reflect the quality of the actual assessment reports. Information may have been present in the individual assessment report that was not represented in the Eligibility Report. Although the Eligibility Report is

intended as a standalone document, it may not reflect enough assessment data to be a true reflection of the individual assessments. Also, retrieval of students' records was accomplished electronically through *Excent* only. There may have been paper records unavailable to the researcher. It was not possible to view the written minutes of the various assessment meetings because the minutes were not available electronically to the researcher for this study. These minutes or possible other paper records may account for or explain some findings or lack of findings in this study.

Discussion of Findings Related to Research Questions

There were three research questions outlined in this study. In spite of the limitations listed in the section above, this study provided a snap shot of 16 high school students with ASDs enrolled during the 2009-2010 school year in Region 1 focusing on how they were assessed, how their IEPs were written, and how social, behavioral, and communication skills were addressed as manifested in electronic records available to the researcher. This section provides a discussion on how each research question addressed issues from the study.

Research Question 1

Have current levels of social, behavioral, and communication functioning been assessed and reported on the most current Eligibility Report and any subsequent assessment among high school students identified as having an ASD?

Variability among student reports. Eligibility Report formats and contents varied greatly from one student report to another making it difficult to follow the assessment and decision making process. In some student records, it

was not clear which assessments had been recently given and which ones were merely reviewed from previous assessment periods. Not all Eligibility Reports used the Tests/Assessments Administered section to list assessments that had been given or only listed some of the assessments. There was often not a uniform flow through the reports to match each student's Assessment Plan's order of requested assessments. It was often difficult to discern where information from one assessment ended and the next one started. Six sets of student records had Eligibility Reports that contained all eight assessment domain areas; they were easy to read and were understandable. Three Eligibility Reports contained most information requested on the Assessment Plan and were somewhat clear to read and understand. Seven Eligibility Reports were missing assessments and were very difficult to read and understand as to what occurred in the students' assessment process.

For example, before the start of any assessment, it is required within the law and the school system to insure adequate vision and hearing skills of the student before participation in the assessment process. Three of the sixteen records showed vision and hearing screenings were not accomplished before any assessments were given. Five of the sixteen records did not show vision and hearing screenings were accomplished within the last year. This is problematic because not confirming adequate vision or hearing skills before assessments jeopardizes the results and validity of such assessments.

It was found that although assessments had been requested, they were not always given. The percent of assessments requested in any given domain area

that were also assessed only averaged 74%, with a range of 60% to 84.6% across all 16 sets of records. Additional assessments requested fared even lower in their actual assessed rate. The average percent of additional assessment areas that were requested and assessed was 38.9%, with a range of 0% to 72.7%. Had the requested assessments been given, perhaps more information would be available to inform eligibility decisions and/or IEPs. Furthermore, the results of assessments that were conducted were not always reported in the Eligibility Report.

Although the written minutes of each student's eligibility meeting and/or other paper records, which were not available to the researcher, may explain some of these discrepancies, it is unlikely given the number of assessments that were requested but not given would be appropriately explained. Although previously mentioned, some errors may be accounted for by problems arising from the new *Excent* computer system. However, one would then expect to see the entire default set of domains listed for an ASD assessment without deletions or additions. This did not occur on any of the student Assessment Plans reviewed, which suggests the Case Study Committee (CSC) was able to manipulate the *Excent* default assessment to fit the student's needs, which minimizes the possibility that discrepancies were due to *Excent* error. Paper copies may have been used for some reason for additional assessments, which would have been unavailable to the researcher.

There were three sets of student records that showed other problems on the Assessment Plan that were possibly due to *Excent* error and all three had been

done in 2008, the first year of the *Excent* program. One Assessment Plan listed the reason for conducting an assessment, but no assessment domains were listed; a second Assessment Plan listed old assessment dates from a previous eligibility process; and a third Assessment Plan had the assessments listed twice. Four Eligibility Reports showed problems that may have been due to the *Excent* computer program. All four listed old assessments twice in the Tests/Assessments Administered section of the most current Eligibility Report. Three of the four Eligibility Reports came from the first year of the *Excent* program and the fourth from the second year of operation. Fortunately, remaining information on these four reports appeared to contain current assessment information.

Lack of parental permission. More problematic was the finding that assessments were given that were not requested according to electronic records. This means parents had not given permission for these assessments to be given. The parent permission form for approving assessments lists the specific assessments that will be given. This permission form is generated from the *Excent* program and coincides with the Assessment Plan form. These two forms are generated at the same time and always mirror the requested assessments. If an assessment is not listed on this permission form, one cannot assume permission had been given, thus the assessment should not be given, unless another permission form is generated and signed by parents. No follow-up Assessment Plan permission forms were found in the electronic records to substantiate permission for unrequested assessments. These may have been completed in

paper records for some reason and unavailable to the researcher for review. This study showed that for the 16 sets of student records, 17 assessments were given that were not requested and therefore did not have parental permission in the electronic record. Looking closer at the records, eight of these 17 assessments came from a single Assessment Plan in which no assessments were listed as requested. As discussed previously, this was most likely an *Excent* computer error and the actual Assessment Plan might have been done in paper copy and not available electronically to the researcher for review. Even so, this left seven other assessments that did not include parent permission on the Assessment Plan in the electronic records. Language assessments were given most often without permission in the electronic records. The records that were available to the researcher are also provided to parents by the schools.

Specific assessment domains. Focusing on each of the seven assessment domains (excluding vision and hearing), information on the Eligibility Report was inconsistent, lacking in detail, and minimal in amount of required information. A systematic record review is listed in the school system's *Procedural Guide* (2005) as required to start the assessment process as well as IDEA stating any initial or re-evaluation should start with a review of available data or documentation on the student. The purpose of the record review is to determine what information about the student is available and what areas may require assessment because of lack of current information. This study showed only 13 out of the 16 records requested a record review and of those 13, only 11 record reviews were done. A review of the 16 sets of records showed only one set of records had a record review done prior

to the Assessment Plan meeting for the student. Three sets of records revealed a review had been used from a previous eligibility process three years prior.

Considering that only one of the sixteen student records appeared to have an assessment plan based on a current record review, it would lead one to question the overall quality of the assessment process for students with an ASD.

The most frequently requested assessment domain was Observation found in 14 of the 16 (87.5%) records and it was assessed on 13 of the 16 (81.2%) records. Additionally, Observation was the most likely domain to yield behavioral information, in which information was found in 11 out of 16 (68.8%) records. It also yielded social information on 7 out of 16 (43.8%) of records, and communication information on 6 out of 16 (37.5%) of records.

Investigating the actual observation information listed on each student's Eligibility Report, most observations were done in only one setting. Of the twelve records that listed information from the Observation domain, nine were done in one class setting only as opposed to multiple settings as recommended in the literature. Wilczynski, Menousek, Hunter, and Mudgal (2007) emphasized the difficulty in program planning for students with an ASD due to the extraordinary variability in skills and symptoms under different circumstances such as times, settings, people, and when different materials are used. Some classroom observations appeared to be in settings that one would not expect to produce much useful information, one was during a test and another during a video. Only three observations were conducted by current service providers including a teacher of students with learning impairments and a Speech and Language

Pathologist who provided information about the student's functioning throughout different settings within the school. Although this domain yielded the most information that was of a behavioral nature, the information in the Eligibility Report was scant, usually dealing with on task behavior.

Educational Performance was the second most requested assessment domain found on 13 out of 16 (81.3%) records and with 11 out of 16 (68.7%) records showing Educational Performance assessments were assessed. The Educational Performance domain was the least likely domain to yield information that was social, behavioral, or communication. Of the six records that contained a standardized achievement test on Educational Performance, only three gave more information than achievement scores. The other information given tended to be the assessors' observations of the student during the testing sessions. Social information was found when a review of education performance discussed how the student performed in multiple settings in school. Behavioral information was found most often from the assessors' observations during standardized assessments, as was any communication information.

The domains of Observation and Education Performance appear to overlap in purpose, namely to see how the student functions within the school environment. Klin and Volkmar (2005) discussed the difficulty in seeing the significance of the disability on students with an ASD due to the fact these students possess seemingly proficient verbal skills along with IQs in the normal range. These two strengths often mask difficulties in organization, socially demanding situations, and executive brain functioning. Often students with an

ASD are unable to generalize the strategies they have learned in one setting to other situations when needed (Siegel, 1996). For these reasons it is not only appropriate but also necessary to investigate how the students function within different settings. Comparing the student's functioning across different settings would determine which conditions the student does well in and which the student needs further instruction, modifications, and/or accommodations.

The Social, Family, and Medical History (SFMH) assessment domain was requested on 12 out of 16 (75%) records and assessed on 11 out of 16 (68.7%) records. The SFMH is a school system form filled out by the parents that lists the student's history of development. The form also asks parents to discuss their child's current strengths and concerns. Of the six records that listed social information, four parents specifically stated one of their major concerns was their child's lack of appropriate social skills. Parents' next major area of concern was their child's lack of on task behavior and organizational skills. Three records reflected parent concerns about their child's frustration and anger. Strengths listed tended to be comments on their child's intelligence, interests, and pleasantness. This was often the only assessment domain that parents were involved in the gathering of information on their child, but the current functioning information solicited from parents was minimal. Parents are a valuable source of information about their children and many ways should be found to bring them into the assessment process. Aspy and Grossman (2007), Johnson and Myers (2007), Klin (2003), Klin and Volkmar (1995), and Shiver, Allen, and Mathews (1999) all emphasized the importance of involving parents in the assessment

process. Parents hold valuable information about their child's functioning. Often a trained assessor can solicit information from parents about their child that they may not have thought to be important to share with the committee.

Language Assessments were requested on 12 of the 16 (75%) records and were given on 13 of the 16 (81.2%) records. Information about communication functioning was included in the Language Assessments on the Eligibility Report on twelve records; five records included social information; and only three records included behavioral information. Language skills are extremely important for success in high school, not only to succeed academically, but also to participate in the school social community. Graetz and Spampinato (2008) discussed that although students with Asperger syndrome are planning to attend college, they are often ill prepared to handle the college social and academic environment. Anxiety can often block the ability to use their academic and language skills. Limited eye contact, odd body postures, and difficulties initiating and sustaining conversations make social interactions one of the most challenging obstacles to college success. Group discussions, which switch from one person to another, each with their own viewpoint, are an increasingly large part of secondary education but the student's difficulty processing auditory information along with idiomatic language problems make class involvement a rarity. Students with an ASD may not recognize other people have different thoughts, ideas, and interests. They usually have difficulty understanding social rules, which often leaves them alone and without social support. If these social and

communication areas are not specifically assessed and subsequently taught in high school, then the student's ability to succeed is compromised.

Medical Evaluations were requested on 10 out of 16 (62.5%) records and were given on 7 out of 16 (43.7%) records. The school system's *Special Education Procedural Guide* states that once there are two diagnoses by separate medical specialists, no further assessment in this domain is required. A clinical specialist in the area of autism including clinical psychologists, psychiatrists, or developmental pediatricians must make the diagnosis. However, the chronicity of diagnosis was very unclear from most student records. A few records were very clear on recent dates and credentials of the person making diagnoses, but most records were not. It was often uncertain when the student was first diagnosed. Moreover, there was little, if any, information on how medical and school personnel worked together on the diagnosis. It was unclear if the doctor worked independently from the school personnel or if they worked together. Only a few records included rating scales completed by parents or teachers as part of the assessment process for the Medical Evaluation.

Three records showed the ASD diagnosis was changed or dropped. Three students had been eligible for special education services under an ASD at the time parent permission was requested for this study, but by the time student records were retrieved approximately three months later, the students had undergone a new eligibility process and the diagnosis was changed or dropped. One student was no longer eligible for special education services due to the lack of a diagnosis. The two remaining students were found eligible for special education

services under a different category (ADHD in one case and unclear in the other). The reason found on the medical review for dismissing the ASD diagnosis for all three students was a result of each student's improved social skills. However, all three students had documentation of significant social deficits listed in other assessment domains including pragmatic language tests showing significant social deficits; one set of parents indicated strong concern for their child's lack of social skills within the Record Review domain; and the Educational Impact Analysis for two of these students showed significant social problems. The school personnel had collected a wealth of social skill deficit information on these students, but it was unclear whether the medical staff had access to this assessment information in changing the diagnoses. At minimum, these findings seem to question the working relationship between the school and the medical personnel. Also, it was unclear if the medical personnel had experience, training, or background in the area of ASD.

Transition Assessments were requested on 11 out of 16 (68.8%) records and assessed on 9 out of 16 (56.3%) records. Six Transition Assessments gave behavioral information, four gave social information, and three gave communication information. The behavioral information listed consisted of statements about the student's ability to work independently and self-advocate as well as inappropriate behavior issues. Social information consisted of a single statement about the need for improved social interaction skills. Communication information usually consisted of the students' ability to verbally give information about their interests and desires for employment. Most assessments discussed the

student's future employment interests. Few discussed what skills, instruction, modifications, and accommodations the student might need to meet their future life plans.

The school system's *Special Education Procedural Guide* states the purpose of the transition assessment is to help students with disabilities identify their interests, preferences, aptitudes, and abilities to decide upon post-secondary outcomes and goals. Assessment also provides information about the instructional strategies, techniques, and assistive technology that should be used to teach the student in addition to the supports and linkages within the community which are needed. This information should be used to plan an educational program with specific goals and objectives that will prepare the student for life in the adult world. When designing a transition assessment plan, the CSC should consider the student's potential needs in the following program components: Academic Learning, Career/Employment and Vocational Training, Financial Planning, Living Requirements, Leisure and Recreation, Social Relationships, Independent Living Skills, Self-advocacy, and Medical Support and Assistance. Only four of the 16 assessments addressed the majority of these areas. Transition assessment is a major area one would expect to find information on social, behavioral, and communication deficits. However, very little information was found in regard to assessments given and information to determine goals and objectives favoring independent living, self-advocacy, academic supports, and social needs (Adreon & Durocher, 2007).

Social Assessments were requested on only 4 of the 16 (25%) records and given on 3 of the 16 (18.8%) records. Social information found in these records consisted of the students' interaction ability such as fails to read social cues, talks only on their own topics, anxiety level, and inability to understand verbal information given. Gresham, Sugai, and Horner (2001) in their review of meta-analytic research on social skills training with students with disabilities concluded the first step of any social skills program should be to identify the specific social skills that will be the target of the intervention. In order to do this, an assessment of the student's present social skills would be necessary. Bellini and Hopf (2007) recommended the use of the *Autism Social Skills Profile*. Their preliminary study on this instrument substantiates its internal consistency, test-retest reliability, and concurrent validity. This instrument was listed on several records but used only once, according to electronic records. Although specific social information may come to light within almost any of the assessment domains, it should be required to find and use social assessment instruments that assessed the range of expected social behaviors needed for school and job success for all students diagnosed with an ASD.

Adaptive Behavior Assessments, although requested on three records, were only completed and found in one student's record. Then, only the overall score from the *Vineland Adaptive Behavior Scales* was reported. In a study of assessment instruments used with ASD students, Luiselli et al. (2001) found the *Vineland Adaptive Behavior Scales* was one of the most frequently used instruments to determine one's personal and social behaviors. Furthermore, one

Behavior Assessment was requested, but it had not been given according to electronic records. A number of records documented behavior problems that students were having. None of these records appeared to investigate the problem behaviors in regards to causes or possible solutions.

Students in our nation's educational system receive a diagnosis of an ASD due to deficits in the three areas: social, behavior, and communication (American Psychiatric Association, 1994, Johnson & Meyers, 2007). Considering all sixteen students were assessed for eligibility under an ASD for special education services, the amount of specific information on the Eligibility Report in these areas seems inappropriately scant. One would expect the majority of the evaluation would center on these three skill areas and how students performed behavioral, social, and communication skills in home, school, and social activities. Whether the eligibility assessment was based on a review of records, current performance, and/or standardized assessment instruments, one would expect the assessment process to center on strengths and weaknesses in the area of disability in order to plan an appropriate program and determine needed services for each student. In electronically reviewing what had occurred during the assessment process on these 16 records, the assessment process appeared to be nonfunctional. There was a lack of purposeful planning to determine what needed to be assessed for these students and what was crucial for the CSC not only to determine or continue eligibility, but also to identify the strengths and weaknesses of the student to ensure a program that prepared the student for success as an adult.

Research Question 2

What are the instruments used in assessing social, behavioral, and communication functioning among high school students who have been identified as having an ASD? There were three domains and one additional assessment area that listed assessment instruments by name: Medical Evaluation, Educational Performance, Language Assessment, and Intellectual Assessment. The most frequently used assessment instrument by name was the Clinical Evaluation of Language Fundamentals 4 (CELF-4) found listed in 7 out of 16 (43.8%) records. This was followed by the Oral Peripheral Exam (OPE), found in 6 out of 16 (37.5%) records, and then followed by the Comprehensive Assessment of Spoken Language (CASL) and Language Observation, both found in 4 out of 16 (25%) records.

These four tests were found listed in the Language Assessment domain. The school system's *Special Education Procedural Guide* states, as with any assessment, the choice of instruments should be driven by the information gathered during the record review. In most cases, testing will include a comprehensive language assessment (CELF or TOLD) and a pragmatic language assessment. It is not uncommon for a student with Asperger syndrome to score in the average to above average range on these standardized measures. Therefore documentation of language problems should be gathered through communication samples and observations. In reviewing the records, only seven of the sixteen records included a pragmatic language test of some type and only four records included a language observation. This does not appear to meet the intent of the

Language Assessment as stated in the Procedural Guide. Unfortunately, little evidence on critical communication information was available in the Eligibility Report. Graetz and Spampinato (2008) discussed that although students with an ASD may be able to handle learning high-level curriculum, the interaction in the classroom is often the problem. Students with an ASD may not recognize that other people have different thoughts, ideas, and interests. Pragmatic skill assessments take these areas into consideration. Furthermore, one assessment instrument would most likely not be adequate. A functional approach to look at how students with an ASD are able to use pragmatic communication skills in a variety of settings would be important to consider. Although the CELF-4 was the most often named assessment given, the pragmatic portion of the test was not regularly given.

The school system's *Special Education Procedural Guide* states that an oral peripheral exam must be completed to determine if there are indications of neurological problems and to identify possible structural/functional causes of the language disorder. It is required for initial eligibility under Communication Impaired. An OPE does not seem necessary for an ASD eligibility, especially at the secondary age level. One would not expect to see this evaluation on the Assessment Plan for older students unless records revealed it was a continuing concern that needed assessment. For these reasons, it was unclear why the results of the Oral Peripheral Exam were found on six sets of records. This again showed the use of rote rather than thoughtful assessment practices.

Educational Performance was the second most often assessment domain to name instruments used. Six of the eleven records listed standardized achievement tests given. The *Woodcock-Johnson Test of Achievement 3* (WJIII) and the *Kauffman Test of Educational Achievement Second Edition* (KTEA-2) were each reported on three sets of records. The other five records used observation techniques or review of records as the assessment vehicle to obtain information on educational performance. Although standardized achievements tests may be appropriate to use for students with an ASD, the purpose of the Educational Performance assessment is not only to determine achievement level but also to determine how the student performs the needed academic skills within the required school environments. As already mentioned, many studies discussed the ability of students with an ASD to score well on tests, but their inability to use the information in needed situations or in a manner that is productive to the setting (Channon, Charman, Heap, Crawford & Rios, 2001; Saulnier & Klin, 2007; Venter, Lord & Schopler, 1992). The school system's Procedural Guide states that educational performance may be documented through interviews, observations, and student self-assessment. Records, report cards, and parent information may also be considered. Regardless, there were very few assessments found and used to determine current educational performance across different settings according to the Eligibility Reports.

In the school system the purpose of the Medical Evaluation is to provide the diagnosis of an ASD from qualified and trained medical professionals. It is also intended to provide information about the nature of the student's impairment.

The school system requires that at least two diagnoses from qualified professionals be substantiated in the records before no more medical evaluations are needed during subsequent eligibility determinations. The school system is unique in that unlike most school districts, there is an agency that provides medical services and evaluations. This would tend to ensure a vehicle for a free and appropriate evaluation for all students who require one. This agency works with the schools to provide evaluations and services that are of a medical nature. Only two sets of records listed ASD diagnostic instruments used in the Medical Evaluation. These records included the use of the following assessments: *Achenbach System of Empirically Based Assessment (ASEBA)*, *Child Autism Rating Scales (CARS)*, and *Autism Diagnostic Observation Schedule (ADOS)*. Luiselli et al. (2001), Venter, Lord, and Schopler (1992), and Saulnier and Klin (2007) found the *Vineland Adaptive Behavior Scales (VABS)* and the *Autism Diagnostic Observation Schedule (ADOS)* to be most consistently used in diagnosing a student with an ASD and forming educational and treatment plans. The VABS is used with individuals from birth to 90 years of age centering on motor, communication, daily living, socialization, and behavior skills. The ADOS is used with toddlers up to adults and intended as a diagnostic instrument for ASD consisting of activities that allow the assessor to observe social and communication behaviors. The use of these highly recommended assessments was basically nonexistent according to electronic records.

On the other five sets of records that listed assessed medical evaluations, the Eligibility Reports did not list specific instruments used. Most school districts

have a written or verbal, standard operating procedure or agreement with the medical agency that states how and what information is to be shared to accomplish the Medical Evaluation. Most of these agreements require the school to share all assessments with the medical personnel within a 20-day period. Again from the records it is unclear if this happened with the 16 students who participated.

Research appears to support a functional approach to assessment for students with an ASD, especially older students. Klin and Volkmar (1995) stated a comprehensive assessment should establish the overall level of functioning while profiling strengths, weaknesses, and style of learning. Shiver, Allen, and Mathews (1999) stated assessment should not only verify eligibility but also lead to effective educational programming for students with an ASD. *A Family Reference Guide to Services for Youth and Young Adults with Autism* (TEACCH Center, undated online publication) suggests a functional assessment for adolescents to prepare for adulthood and to inform the IEP. Areas of functional assessment should include: self-help, independent functioning, communication, leisure, social interaction, and vocational skills. The philosophy is that without the ability to apply the learned skills, the adolescent with an ASD would have great difficulty in the mainstream world. Harris and Glasberg (2007) discussed the importance of functional assessment as an instrument for students with an ASD to deal with maladaptive behaviors. They promote a triad of assessment components including interviews with parents, teachers, and possibly the student; descriptive analyses as to what is happening within the natural environment; and a functional

analysis. Despite the actual instruments used within these records, critical functioning information for these students was minimal and lacking in explicit detail or rigor needed to plan an appropriate and comprehensive program for each student having an Autism Spectrum Disorder. Whether any of the school personnel possessed training and background in assessing students with an ASD is an unknown. A specialty certification for Autism was introduced in the school system in 2009, however at the time of this study the number of personnel receiving this certification was unavailable to the researcher.

Research Question 3

What are the goals and objectives from the most current IEP in the areas of social, behavioral, and communication among high school students identified as having an ASD? The school system's *Goals and Objectives Handbook* is the main source of goals and objectives for developing IEPs. Other goals and objectives can be written into the *Excent* system but the vast majority of goals and objectives used in this study came from the handbook. The total number of goals on each of the participating 16 students' IEP ranged from 4 to 15, with a mean of 8 goals. The total number of goals on each IEP identified as being social, behavioral or communication ranged from 2-7, with a mean of 4 goals. The total number of objectives on each IEP ranged from 5 to 35, with a mean of 18.5 objectives. The total number of objectives on each IEP identified as being social, behavioral, or communication ranged from 2-19, with a mean of 9.8 objectives. On average, half of each student's IEP centered on goals and objectives that were of a social, behavioral, or communication nature. So despite the seeming lack of

assessment information, a main focus of the IEP was on social, behavioral, and communication skills.

However, the goals and objectives cited on the students' IEPs appeared to focus on outcomes that would not adequately improve the quality of overall independent performance or improved social functioning to a level commensurate to expectations for the student's other functioning levels. Social and communication goals and objectives centered on using appropriate pitch, rate, and volume for the situation and setting of a conversation as well as maintaining a topic in conversation. Although these skills may be appropriate for the student, they are not rigorous enough for the majority of these students listed functioning level as detailed in their electronic records. The vast majority of the students in this study attended general education classes. According to the records out of eight general education classes in an individual student's schedule one student attended all general education classes, seven students attended all but one class in general education, two students attended all but two classes in general education, two students attended all but three classes in general education and the other three students attended general education classes for less than half of their day. Most general education classes require the ability to discuss topics, work in groups on assignments and long-term projects, give and respond to opinions, understand and/or take on the viewpoint of others, among a multitude of other high level skills. The ability to understand complex interactions is essential not only in high school but in any work place and life in general. Students study together, seek each other out for advice and help with personal situations, and enjoy each other's

company in a variety of settings. Students with an ASD tend not to develop these skills at an appropriate level on their own. If these skills are not specifically taught, these students, as intelligent as they may be, are at risk for success in high school, the work place, and quality of life in general.

The American Academy of Pediatrics (2007) commented on the lack of published research on comprehensive programs for older children and adolescents with an ASD. The focus of programs for this age group should be on achieving social communication competence, emotional and behavioral regulation, and functional adaptive skills necessary for independence. The Academy strongly suggested that educational programs be individualized for the child's impairments to maximize the child's strengths and provide needed and appropriate supports. They emphasized that even high functioning students with an ASD have needs that require the attention of a trained professional to ensure appropriate programming. Therefore, goals and objectives for high school students with an ASD need to go beyond the basic social, behavioral, and communication skills needed by younger children. Adult demands and interactions are much more complex and require a deeper understanding and skill. When planning IEPs for these students, especially students with average to above average intelligence, educators must ensure the students with an ASD are offered the opportunity to learn higher level social, behavioral, and communication skills in order to use their intellectual potential in life.

Implications

The school system's *Special Education Procedural Guide* does not include specific assessment domain requirements to assess the social and behavior competence of student with or suspected of an ASD. When reviewing the specific guidance, the expectation may be these functioning areas will be assessed within the required domains, specifically within the Observation, Educational Performance, and Language Assessment domains. However, this does not seem to be the case as the findings of the present study revealed. Therefore, based on the results of this study the following recommendations are made for consideration:

Assessment Recommendations for all Students

1. Construct and use a template for the Eligibility Report which consists of specific delineated assessment areas to make it easier to complete, read, and understand by staff, parents, medical personnel, and others who need to review information contained in the report.
2. Ensure vision and hearing screenings are always implemented and documented before starting any eligibility evaluation so that adequate vision and hearing are assured or treated.
3. Accomplish a thorough record review before determining the Assessment Plan for each student.
4. Discuss the record review and determine what information or assessments are needed to plan an appropriate program and services for each student with a disability.

5. Ensure requested assessments are given and each given assessments has parent permission.

6. Involve parents actively throughout the assessment process.

Assessment Recommendations for Students Diagnosed with an ASD

1. Ensure specific information in the functioning areas of social, behavioral, and communication skills which align with the triad of deficits of an ASD are included in the assessment domains on the Eligibility Report for an initial ASD diagnosis. Any re-evaluations need to re-examine the three areas for current levels of functioning.

2. Create a template for Educational Performance assessments to ensure all areas of possible need are considered for assessment and documentation of current level of functioning.

3. Ensure the Case Study Committee has a firm understanding of the purpose and function of each assessment requested.

4. Investigate and recommend evidence based assessment instruments on an ongoing basis for use by medical and school personnel.

5. Require ongoing training for medical and school personnel involved in the assessment process for students having an ASD.

6. Require functional assessment methods be implemented to ensure students are assessed in ALL functional settings.

7. Investigate how the medical and school personnel work together and provide a liaison protocol between the medical and educational agencies during the

assessment process. Ensure all assessment information is shared in a timely manner before a diagnosis is made.

8. Ensure an ASD specialist is involved in each step of the assessment process.

9. Require the use of adaptive behavior scales such as the *Vineland Adaptive Behavior Scales* (2nd ed.) (Sparrow, Cicchetti, & Balla, 2005) or the *Diagnostic Adaptive Behavior Scales* (DABS) (AAIDD, 2011) to assist in investigating functioning levels of students regardless of age.

10. Require Transition Assessments to focus on skills the student needs to develop to be a productive adult. Ensure use of the guidelines from the school system's publication *Reaching and Teaching Students with ASD: A Best Practice Guide* along and the school system's *Special Education Procedural Guide*.

11. Involve parents actively throughout the assessment process.

IEP Recommendations for Students Diagnosed with an ASD

1. Examine and update the school system's *Goals and Objectives Handbook* annually to ensure appropriate goals and objectives are available for consideration for students within the full range of ASD.

2. Require rigorous goals and objectives for inclusion in the IEP including nonverbal and pragmatic communication skills, interactive/social skills, emotional self-regulation behaviors, critical thinking skills, and adaptive behaviors suggested by Wilczynski, Menousek, Hunter, and Mudgal (2007), School system's *Reaching and Teaching Students with ASD: A Best Practice Guide*, and the school system's *Special Education Procedural Guide*.

3. Ensure an ASD specialist is involved in the development of the IEP for each student with an ASD.
4. Ensure active parental involvement in developing the IEP.
5. Provide ongoing training and information updates to all medical and school personnel in the area of ASD to include general information, strategies, research, and program development.

These recommendations are extensive and far-reaching. They require a systematic vehicle to make the changes suggested within the school system. It is recommended a task force be convened to investigate how these changes can be realized within the school system. The task force would need to break down goals, responsibilities, timelines, and evaluation procedures for the changes recommended. After an acceptable implementation period for the changes to take place, it may be advisable to replicate this study to measure the outcome.

Conclusion

There is a growing concern about the potential impact on public monies and resources for the increasing number of adults with an ASD (California Department of Developmental Services, 2003). Advancing Futures for Adults with Autism (AFAA) convened a Think Tank in 2009 to develop and drive policies that provide for lifelong living and learning for persons with autism. They discussed the lack of viable services and options to meet their needs. Their emphasis is to break the all too common status of “dependency” and help this population of young adults with autism become engaged tax-paying members of their communities (AFAA, 2009). Findings from this study highlight the

importance of maximizing the potential of students with an ASD during the high school years, the last years of federally mandated educational services. The responsibility for schools and educators at this important crossroads for our students with an ASD is to adequately determine what skills they currently possess and what skills they need to learn to maximize their ability to be successful adults. And then design a plan to teach these skills.

Appendix A

Methodological Critique Matrix on 12 Research Studies

Study	Rational/Purpose Research Question	Design	Sample Participants	Method/ Procedures	Analyses	Results
1. Luiselli, Campbell, Cannon, DiPietro, Ellis, Taras, & Lifer 2001	To determine what assessment instruments are routinely used	Descriptive	632 service centers obtained by the Autism Research Center were surveyed 113 (17.8%) were returned	Survey	Tabulated answers	Most endorsed assessment tools were: <i>Vineland Adaptive Behavior Scales</i> <i>Peabody Picture Vocabulary Test-III</i> <i>Preschool Language Scale -3</i> <i>Bayley Scales of Infant Development</i> <i>Peabody developmental Motor Scales</i> <i>Visual Motor Integration Test</i>
2. Venter, Lord, & Schopler 1992	To evaluate the role of various cognitive and behavioral measures in childhood in predicting social- adaptive and academic attainment in high functioning autistic adolescents and adults	Descriptive Correlational	58 high functioning children with autism (35 males, 23 females) followed for 8 years into adolescence	At follow-up each subject was given a battery of psychometric and achievement tests.	Regression age- equivalents z-scores correlation coefficients chi-square tests Standard scores	Scores on the <i>Vineland Adaptive Behavior Scales (VABS)</i> were markedly below intelligence scores. Early measures predicted 43% of the variance of the VABS. Speech before 5 years was a significant predictor. Current measures predicted 51% of the variance of the VABS. The strongest predictors were; test of comprehension of oral language, and verbal IQ. Early measures predicted 60% of the variance on achievement measures. Current measures predicted over 80% of the variance of achievement measures.

						Mainstreamed students had verbal IQ scores above the median. Competitively employed subjects had higher verbal IQ and reading comprehension scores. Outcomes were still not at a level expected given IQ.
3. Saulnier & Klin 2007	Examine the nature of ability and disability in higher functioning autism and AS in relationship to age and IQ in order to determine whether patterns of symptomatology within ASD might add to our understanding of adaptive functioning in these diagnostic groups.	Descriptive Correlationa 1	32 participants diagnosed with autism, 35 diagnosed with AS All males ages 7-18 with Verbal IQ scores greater than 70.	Vineland and ADOS scores were examined in relationship to age and IQ for a group of higher functioning males with autism and AS	Mean Standard deviations t-values	Vineland Communication scores were over two standard deviations below VIQ and Vineland socialization scores were over three standard deviations below FIQ scores. FIQ and VIQ scores for the autism group were significantly lower than the AS group. The two groups did not differ in PIQ. The AS group had a greater discrepancy between their VIQ and PIQ scores. The autism group was more evenly developed between the two. These data highlight the magnitude of adaptive impairments (real life skills) despite cognitive ability.
4. Cederlund, Hagberg, Billstedt, Gillberg, & Gillberg 2008	Hypo 1. Diagnosis is stable over time 2. AS has better outcomes 3. Better outcome in AS is attributed to higher IQ 4. Intellectual ability declines over time 5. Individuals with high verbal IQ have better social outcomes 6. Earlier diagnosis show fewer	Descriptive Follow up study	70 males w/ AS and 70 males with autism Sweden, ages 16-36. All were within normal intelligence range.	Overall clinical assessment was made to include; <i>Diagnostic Interview for Social and Communication Disorders, Wechsler Intelligence Scales, Vineland Adaptive Behavior Scales, and Global Assessment of Functioning Scales.</i> Specific outcome criteria were used.	Chi-square tests for comparison of group frequencies	Males with AS had worse outcomes than expected given normal IQ but were still significantly better than males with autism. Hypo; 1. Over 80% still clinically valid in both groups 2. AS had significantly better outcomes 3. VIQ did prove to predict better outcomes 4. No decline in FSIQ over time for AS but there was for autism 5. Not clearly answered

	<p>problems in early adult life</p> <p>7. Higher frequency of severe psychiatric disorders than in the general pop</p> <p>8. Involvement w/ the police is at the same rate as the general pop</p>					<p>6. Not significant</p> <p>7. Not significant</p> <p>8. Not significant but type reflected lack of common sense</p>
5. Channon, Charman, Heap, Crawford, & Rios 2001	Real-life-type problems solving was examined	Causal Comparative	15 adolescents between 11 and 19 years of age (13 male, 2 female) who met the DSM-IV diagnostic criteria for AS and 15 typically developing participants between ages 10 and 17 (13 males, 2 females) recruited from local schools	Videotaped presentations of awkward everyday situations were shown. Then participants were asked to answer a series of questions. They were asked to give a factual account of the problem situation, give as many potential solutions within 2 minutes, select the best solution from the perspective of the main character, select the best solution for them, and then rate their satisfaction with their answers for both.	Responses were scored using three criteria: Problem appreciation, Social Appropriateness, and Effectiveness. 94.3% inter-rater agreement. Mean, standard deviation, Effect size and significance were determined for each group.	The AS group performed significantly below the level of the typically developing group on several measures. They needed more prompts, although they did not differ significantly in number of solutions the quality of solution was lower for each measure and the quality of their own solution was poorer. The two groups did not differ in their rating of satisfaction of their best solution.
6. Herzinger & Campbell 2007	Delineate the differences in accuracy and effectiveness of different FBA	Meta-analysis Comparative	57 articles on 81 participants, with a total of 106 separate	Analyzed and coded 106 different FBAs from journal articles and their effectiveness for	MBLR - Mean base-line reduction PND - % of non-overlapping	Treatment effects did not differ between types of FBA. FA more effective if behavior suppression rather than behavior reduction is the goal of treatment.

	methodologies		FBA's, all with a diagnosis of autism, majority male (2.5:1), age range 3-49	intervention Separated them into 2 types FA – experimental BA – non-experimental	data PZD - % of zero data	
7. Etscheidt 2003	Examine the controversy concerning selection of IEP methodology from a legal perspective	Descriptive	68 cases between 1997-2002 published in the <i>Individuals with Disabilities Education Law Report</i>	Analysis of specific factors influencing administrative and judicial decisions regarding the adequacy of IEPs for students with autism	Descriptive analysis	3 primary factors were found 1. IEPs were consistent w/evaluation data – 9 consistent, 12 inconsistent 2. Qualifications of IEP Team -9 for School district 3. Methodology was able to achieve IEP goals - 38 cases 5 for Parent in part, 12 for Parent, 20 for School District (SD), 1 sent back to IEP team
8. Etscheidt 2006	Review the administrative decisions and case law addressing Behavior Improvement Plans (BIPs)	Descriptive	52 published decisions from predominantly state-level administrative hearings involving students with disabilities, 12 of whom were ASD	Interpretive document analysis to identify the substantive requirements of BIPs	Descriptive analysis	Five themes were identified: info given for ASD students only 1. A BIP must be developed if behavior is interfering with learning – 1 for SD, 1 for P in part, 4 for P 2. The BIP must be based on assessment data – 1 for P 3. The BIP must be individualized to meet the unique needs of the student – 2 for P, 2 for SD 4. The BIP must include positive strategies and supports 5. The BIP must be implemented as planned and its effects monitored – 1 for SD, 2 for P

9. White, Scahill, Klin, Koenig, & Volkmar 2007	To identify child characteristics associated w/educational placement and service use in high-functioning children with ASD	Descriptive Correlational	101, 5-21 yr olds enrolled in public education from 25 different states, with an average age of 12	The following assessments were given: 1. Autism Diagnostic Interview-Revised 2. Autism Diagnostic Observation Schedule 3. Vineland Adaptive Behavior Scales 4. Intellectual functioning 5. Educational History Questionnaire (to include placement and services)	The distribution of diagnoses across placement was evaluated by x ² MANOVA for K and 2d grade, Logistic regression was used to identify child characteristics associated w/1 st grade class placement in sped ed, univariant models were used, a hierarchical modeling procedure was employed, WALD test, t- test	From 1 st through 5 th gr proportionately more students w/AS and PDD-NOS were in regular ed classes at each progressive level while the proportion of students w/autism in mainstream classes declined. The most frequently reported service was speech/language therapy, second was physical/occupational therapy, academic tutoring. Social skills intervention were much less frequently reported, w/8th gr reporting no students receiving these services. Low IQ and Vineland Communication scores were predictors of sped ed placement. Students who moved to special education had slightly greater social deficits.
10. Dymond, Gilson, & Myran 2007	Investigates recommendations for improving school and community-based services for children with ASD	Descriptive	783 parents of children birth to 22 diagnosed w/ASD	Open-ended survey	Inductive analysis Frequency Percentage	Four Themes: 1.Improve quality, quantity, accessibility and availability of services resulted in top 6 choices of Applied Behavior Analysis, communication training, respite care, social skills training, early intervention, transition services

						<p>2. Educate and train service providers</p> <p>3. Increase funding</p> <p>4. Create appropriate placements and programs. Parents complained that often their child's needs were not being met.</p>
11. Callahan, Henson, & Cowan 2008	To identify evidence based components of public school autism programs and to investigate their social validity by parents, teachers and administrators.	Descriptive	95 parents, 54 special ed teachers and 16 administrators and 21 "Others" primarily from North Central Texas.	Survey Evidence based intervention Components were categorized into 5 functional areas: Individualized Programming, Data Collection, Empirically demonstrated strategies and interventions, Active collaboration, Long-term outcomes	Individual item analysis, Mean and standard deviations	Results indicated an over all high level of social validation across all response groups. Parent ratings were generally higher and administrators were generally lower. Empirically demonstrated strategies were rated lowest, although still high. In open-ended questions all groups thought that more training for teachers was needed.
12. Humphrey & Lewis 2008	Examine the views and experiences of AS students in secondary school	Descriptive	20 students with AS age range 11-17 years old from 4 mainstream secondary schools in Northwest England	Semi-structured interviews Pupil diaries Pupil drawings	Interpretive phenomenological analysis	Themes were discussed Characteristics of AS, Relationship with peers, Anxiety and stress in school, Working with teacher and other staff, Negotiating difference Overall students felt that their needs were not being met.

Appendix B

Autism Spectrum Disorder Assessment Plan Form

MINUTES OF CASE STUDY COMMITTEE MEETING

ASSESSMENT PLAN – AUTISM/PDD

Privacy Act Notice: Authority to Collect Information: 20 U.S.C. 927(c) and 10 U.S.C. 2164(f), as amended; E.O 9387; the Privacy Act of 1974, as amended, 5 U.S.C. 552a. **Principal Purpose:** The information will be used within the school system to determine the services to be provided to a student to assist the child to receive a free appropriate public education. **Disclosure** to the Agency of the information requested on this form is voluntary; but failure to provide all requested information may result in the delay or denial of student services. The school system may disclose information requested in this form to other activities and contracted service providers who require the information to deliver educational services to the child and for valid medical, law enforcement or security purposes, or for use in litigation concerning the delivery of student.

Student _____

Date of Meeting _____

Signatures of Participants in Attendance at Meeting:

Parent/Guardian (as appropriate)

Administrator/Designee

General Education Teacher

Special Education Teacher

()

()

()

()

()

()

Appendix C

Eligibility Report Form

CASE STUDY COMMITTEE ELIGIBILITY REPORT

Privacy Act Notice: Authority to Collect Information: 20 U.S.C. 927(c) and 10 U.S.C. 2164(f), as amended; E.O 9387; the Privacy Act of 1974, as amended, 5 U.S.C. 552a. Principal Purpose: The information will be used within the school system to determine the services to be provided to a student to assist the child to receive a free appropriate public education. Disclosure to the Agency of the information requested on this form is voluntary; but failure to provide all requested information may result in the delay or denial of student services. The school system may disclose information requested in this form to other activities and contracted service providers who require the information to deliver educational services to the child and for valid medical, law enforcement or security purposes, or for use in litigation concerning the delivery of student.

Student Name:

Meeting Date:

Required Signatures

Signature of Parent

Signature of Administrator

Signature of Classroom Teacher

Signature of Special Education Teacher

Signature of Student (if appropriate)

Signature of:

Signature of:

Signature of:

Signature of:

Signature of:

Eligibility Process: Based on a review of the evaluation information presented to determine the presence of a disabling condition that adversely affects the student's educational performance, the CSC concludes that the student is:

- __ ELIGIBLE for special education and other appropriate related services under the school system guidelines.
__ INELIGIBLE for special education and other appropriate related services under the school system guidelines.
__ TRIENNIAL REVIEW; student continues to require services of IEP.

Check criterion and disability by which student has been found eligible for special education and related services is:

- Physical Impairment: __Autism __Blind __Visually Impaired __Deaf __Hearing Impaired __Deaf/Blind __Orthopedically Impaired __Other Health Impaired __Traumatic Brain Injury __Pervasive Developmental Disorder
Emotional Impairment
Communication Impairment: __Articulation __Language/Phonology __Fluency __Voice
Learning Impairment: __Specific Learning Disability __Intellectual Disability
Developmental Delay: __Adaptive/Self Help __Cognitive __Communication __Physical __Social/Emotional

CASE STUDY COMMITTEE ELIGIBILITY REPORT

Student:
Date of Meeting:

Grade:

I. TESTS/ASSESSMENTS ADMINISTERED

Completion Date

Vision Screening: (results)
Hearing Screening: (results)

II. SYNTHESIS OF TEST DATA (Supporting evidence of disability and impact on educational performance)

Reason for Referral/Records Review:

Social/Family/Medical History:

Intellectual Screening/Information Processing:

Medical:

Achievement:

Educational Performance:

An Educational Impact Analysis.

Observation:

In Summary,

III. INFORMATION FROM PARENTS/GUARDIANS/STUDENTS:

IV. INFORMATION FROM OTHER SOURCES (Classroom Teacher/Medical/Records):

CASE STUDY COMMITTEE ELIGIBILITY REPORT

V. Each question stated as an eligibility consideration must be answered YES by the CSC in order for the student to meet eligibility requirements for the primary disability criterion. Circle the appropriate response.

CRITERION A - PHYSICAL IMPAIRMENT

YES NO 1. Does the child have a physical impairment (visual, hearing, orthopedic, other health impairment)?

YES NO 2. Does the child require environmental and/or academic modifications?

YES NO 3. Without environmental or academic modifications, will the impairment adversely affect the child's educational performance?

CRITERION B - EMOTIONAL IMPAIRMENT

YES NO 1. Does the student have a confirmed emotional condition?

YES NO 2. Does the condition cause one or more of the following characteristics:

a) An inability to learn that cannot be explained by intellectual, sensory, or health factors? (The student is so emotionally disturbed that s/he cannot learn.)

b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers? (The student is so emotionally disturbed that s/he cannot enter into relationships.)

c) Inappropriate types of behavior under normal circumstances? (Student's behavior is maladaptive.)

d) A tendency to develop physical symptoms or fears associated with personal or school problems? (Student's physical symptoms or fears are the result of a severe mental disorder.)

e) A general pervasive mood of unhappiness or depression?

YES NO 3. Have the observed maladaptive behaviors lasted for a long period of time?

YES NO 4. Does the condition adversely affect educational performance?

CRITERION C - COMMUNICATION IMPAIRMENT

YES NO 1. Does the child have a communication disorder in one or more of the following areas?

1) **Voice Disorder** - presence of a disorder of pitch, intensity, intonation, respiration, resonance and/or quality which is inappropriate for chronological age or gender.

2) **Fluency Disorder** - occurs at a rate of 3 or more abnormal non-fluencies per minute or is greater than 10% non-fluencies in a language sample of 100 words.

3) **Articulation Disorder** - production is not commensurate with developmental age norms. Measured by either a standard score of 80 or 8 to 10%ile on a test of articulation, an error rate of 25% or greater in a 100 word conversation sample,

6 or more phoneme errors for child under 8, or 1 or more phoneme errors for a child 8 or older.

4) **Language/Phonology Disorder** - receptive and/or expressive language (semantics, morphology, syntax, pragmatics, phonology) is at or near the 10th %ile (or standard score of 81) which indicates significant weaknesses across subtests of more than one assessment instrument, or clusters more than one assessment instrument with a comparative strength identified in another language area.

YES NO 2. Does the communication disorder adversely affect the child's educational performance?

CRITERION D - LEARNING IMPAIRMENT

YES NO 1. Is the student's achievement in math, reading or language arts near or below the 10th percentile? (at or near the 35th percentile for students whose mental ability is one and a half or more standard deviations above the mean)

YES NO 2. Is the student's adverse academic achievement due to one of the following deficits?

1) **Intellectual Disability** - significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior. (Circle one) Severity of deficit is: Mild, Moderate, Severe, Profound.

2) **Specific Learning Disability** - disorder in processing and/or production of language and/or information as measured by significant differences among scaled or standard scores, OR significant weaknesses across sub-tests or clusters of more than one test with comparative strength identified, OR significant weakness identified in language processing with comparative strength identified.

YES NO 3. The identified learning problem is not due primarily to a visual, hearing, or motor disability.

YES NO 4. The learning problem is not due primarily to emotional disturbance, environmental deprivation, cultural differences, or English as a Second Language.

CRITERION E - DEVELOPMENTAL DELAY

Specific to children ages 0 through 5 years only

YES NO 1. The child has a significant developmental delay of 25% or 2 standard deviations in one area OR a delay of 20% or 1.5 standard deviations in two or more areas.

YES NO 2. The developmental delay is in the area(s) of:

- Adaptive/Self-Help Development
- Cognitive Development
- Communication Development
- Physical Development
- Social/Emotional Development

CASE STUDY COMMITTEE ELIGIBILITY REPORT

TRIENNIAL REVIEW QUESTIONS:

The purpose of the triennial review is to determine if the student continues to require special education services due to a disability that adversely affects the student's education performance. Each question stated as a re-evaluation consideration must be answered YES by the CSC in order for the student to continue to meet eligibility requirements for continuance of special education services.

YES NO 1. Does the student's present level(s) of performance and educational need(s) document the need for continued support? (Need documented under Present Level of Functioning, Achievement, and Performance of CSC Eligibility Report.)

YES NO 2. Are additions or modifications to the special education and related services program needed to enable the student to meet his or her IEP annual goals, and to participate, as appropriate, in the general education curriculum?

YES NO 3. Does the student continue to be a child with a disability?

YES NO 4. Does the student continue to need special education and related services?

CASE STUDY COMMITTEE ELIGIBILITY REPORT

Present Level of Functioning, Achievement, and Performance

VI. Describe what the student does well within the following areas and what concerns there are for the student. Explain how the student's performance affects his/her involvement and progress in the general curriculum. For preschool children explain how performance affects participation in appropriate activities.

Educational: *How does the student perform within the curriculum and on age appropriate tasks?*

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Social/Emotional/Adaptive Behavior: *How does the student manage feelings, interact with others and adapt to different environments?*

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Communication: *How well does the student listen, speak, understand language and express self?*

Strengths:

Area Affected:

Educational Need:

Present Level of Performance:

Area Affected:

Educational Need:

Present Level of Performance:

Area Affected:

Educational Need:

Present Level of Performance:

Cognitive: *How does the student think, problem solve, and learn within the environment?*

Strengths:

Area Affected:

Educational Need:

Present Level of Performance:

Area Affected:

Educational Need:

Present Level of Performance:

Area Affected:

Educational Need:

Present Level of Performance:

Physical/Motor and Physical/Health: *How is the student's vision, hearing, coordination and general health?*

Strengths:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Transition/Life Skills/Career: *(students 14 years of age or older)*
Strengths:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

Area Affected:
Educational Need:
Present Level of Performance:

**VII. RELATED SERVICES NEEDED FOR STUDENT TO BENEFIT FROM
SPECIAL EDUCATION:**

Appendix D

Letter to CSC Chairperson Requesting Assistance

Dear CSC Chair,

My name is Susan Sigerseth and I am a doctoral student from the University of Maryland and a Region 1 employee. I am the Behavior Management Specialist at the Mannheim Complex. For my dissertation I am planning on reviewing special education records to investigate assessment and IEP development for high school students with an autism spectrum disorder specifically in the areas of social, behavior, and communication functioning. Headquarters has contacted your administrator to explain the study approval and school involvement. My university IRB as well as the school system's HQ has approved this study.

I am reviewing records for students who are enrolled in grades 9 through 12 and are eligible for services under category A, due to Autism, PDD or Asperger Syndrome during the school year 2009-2010. The information gathered will be coded and there will be no direct correlation to a particular school for a particular student's information known to anyone except the student researcher. The results of the study will be reported to the University of Maryland in the form of a dissertation.

Your school has been identified as having students enrolled in the desired grades and on an Individualized Education Program (IEP) due to an Autism Spectrum Disorder. I am requesting your assistance to identify students who meet the criteria of being in 9th through 12th grade and qualified for special education under Category A due to an autism Spectrum Disorder.

I am requesting your participation and assistance in contacting parents for permission to review their child's confidential information. . I am requesting that you to send the enclosed permission slip to the sponsor of identified students to obtain permission to review their child's confidential information. In the cover letter, I have offered several options for the sponsor to send the signed paperwork back to me. If they have questions they should contact me directly and will have that contact information in their packet. Once parent permission is obtained I will work with the school system's HQ to obtain the information necessary. The names of students, districts, schools, and staff members will be kept confidential to me as the researcher and will not be reported in any manner. Analysis of the data will be reported as overall practices, not school or district specific. The name of the system will not even be mentioned in the study. Hopefully, the outcome of this study will lead to identifying areas of competence and areas that might need further staff training. Your assistance in this process is voluntary but would be greatly appreciated and hopefully productive for all of us.

I greatly appreciate your attention to my request and any assistance you will be able to provide. If you have any questions or concerns, please do not hesitate to contact me at:

DSN 380-4092/9752.

Sincerely,

Susan Sigerseth

Doctoral Candidate

Department of Special Education

University of Maryland College Park

Appendix E

Letter to Parents

Dear Parent,

I am a doctoral student from the University of Maryland, and a Region 1 Special Education Teacher for the Mannheim Schools. I am completing my dissertation by reviewing the special education records of children with an Autism Spectrum Disorder to investigate what assessments have been given and what goals and objectives are on their IEPs that pertain to social, behavior and communication skills in grades 9-12.

I would like to review your child's special education records as part of this dissertation. To protect the confidentiality of the information in your child's report, I will transfer only the information about assessment and goals and objectives to a separate sheet that will not contain your child's name. All copies of reports, sheets, etc. that will be used in the study will be destroyed after the study concludes. I hope this study will help us understand how to improve services to students with an Autism Spectrum Disorder.

If you are willing to have your child's records reviewed please read the attached permission form and sign if you give your permission. Please be sure to initial at the top of each page to show that you have read each page. All areas that you need to sign or initial are highlighted on the form. You may return permission to me directly in the return addressed envelope provided or send it electronically (faxed or scanned) to the email address below. If you have any questions you can contact me at (049) 16227-12162 or 01622-712162,

Please note that my research study has been approved by the school system and overall results shared with the school system, but the research is not sponsored by the school system. Your participation is totally voluntary and there are no consequences for you or your child based on your participation.

*Thank you for your consideration.
Susan Sigerseth
Doctoral Candidate
Department of Special Education
University of Maryland College Park*

Appendix F

Assessment and IEP Development Recording Form

Student ID _____ Gender 1. Male 2. Female
 Age at IEP 1. 14 2. 15 3. 16 4. 17 5. 18 5. 19 Grade 1.9 2.10 3.11 4.12

Type of IEP

- 1. Initial
 - 2. Triennial
 - 3. Modified
 - 4. Annual
- Date of IEP Meeting _____

Type of Eligibility

- 1. Incoming
 - 2. Initial
 - 3. Triennial
- Assessment Plan Date _____
 Eligibility Meeting date _____

Assessment plan after Elig 1. Yes 2. No
 Purpose 1. Transition 2. Behavior 3. Medical 4. Lang

Eligibility 1. Autism 2. PDD 3. EI 4. OHI 5. Not Eligible

Assessment Plan Domains

A. Vision and Hearing Evaluation (including functional)	Current	1. yes	2. no
--	---------	--------	-------

B. Social/Family/Medical History	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

C. Review of Records	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

D. Medical Evaluation	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
1. Instruments reported	a. yes b. no	2. CARS	a. yes b. no
3. Achenbach	a. yes b. no	4. ADOS	a. yes b. no
5. Anxiety Scale	a. yes b. no	6. Other	a. yes b. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	

Communication functioning information	1. yes	2. no
---------------------------------------	--------	-------

E. Educational Performance/ Achievement	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
1. Woodcock Johnson	a. yes	b. no	2. Observation report
3. Kauffman Test of Ach	a. yes	b. no	4. Review of Records
5. PEP-R	a. yes	b. no	6. Other
			a. yes b. no
			a. yes b. no
			a. yes b. no
<hr/>			
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

F. Language Assessment/ Communication Assessment	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
1. CELF-4 Clinical Evaluation of Language Fundamentals 4 Pragmatics Profile	a. yes	b. no	
2. EOWPVT Expressive One Word Picture Vocabulary Test	a. yes	b. no	
3. ROWPVT Receptive One Word Picture Vocabulary Test	a. yes	b. no	
4. CREVT-2 Comprehensive Receptive and Expressive Vocabulary Test – 2	a. yes	b. no	
5. Test of Problem Solving for Adolescents	a. yes	b. no	
6. TOPL -2 Test of Pragmatic Language – 2	a. yes	b. no	
7. Comprehensive Assessment of Spoken Language	a. yes	b. no	
8. OPE Oral Peripheral Exam	a. yes	b. no	
9. Language Sample Analysis	a. yes	b. no	
10. Test of Language Development	a. yes	b. no	
11. Observation	a. yes	b. no	
12. Parent Interview	a. yes	b. no	
13. EASC Evaluation of Acquired Skills in Communication	a. yes	b. no	
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

G. Observation	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. No	

H. Educational Impact Analysis	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

I. Transition	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

J. Other/Intellectual/ Cognitive	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
1. WISC-4	a. yes	b. no	
2. WAIS – 3	a. yes	b. no	
3. Stanford Binet – 5	a. yes	b. no	
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

K. Other	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Name _____			
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

L. Other	Assessment Plan	1. yes	2. no
	Assessed	1. yes	2. no
	Reported	1. yes	2. no
Name _____			
Social functioning information	1. yes	2. no	
Behavioral functioning information	1. yes	2. no	
Communication functioning information	1. yes	2. no	

M. Information from Parent	1. yes	2. no
Social functioning information	1. yes	2. no
Behavioral functioning information	1. yes	2. no
Communication functioning information	1. yes	2. no

N. Information from Staff	1. yes	2. no
Social functioning information	1. yes	2. no
Behavioral functioning information	1. yes	2. no
Communication functioning information	1. yes	2. no

O. Assessment Team			
1. Listed	a. yes	b. no	
2. Assessor, Special Education	a. yes	b. no	c. unclear
3. Assessor, SLP	a. yes	b. no	c. unclear
4. Teacher, LI	a. yes	b. no	c. unclear
5. Counselor	a. yes	b. no	c. unclear
6. School Psychologist	a. yes	b. no	c. unclear
7. EDIS	a. yes	b. no	c. unclear
8. Nurse	a. yes	b. no	c. unclear
9. Occupational Therapist	a. yes	b. no	c. unclear
10. Teacher, LIS	a. yes	b. no	c. unclear
11. Teacher, EI	a. yes	b. no	c. unclear
12. Speech Language Pathologist	a. yes	b. no	c. unclear
13. None listed	a. yes	b. no	c. unclear

Goals and Objectives IEP Check

Student ID _____

S – Social info B – Behavioral info C – Communication info SB – Social, Behavioral info

SC – Social, Communication info BC – Behavioral, Communication info

SBC – Social, Behavioral, Communication info

<u>Career/Work Skills</u>	
Goal –	Goal –
1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC	1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC
Obj -	Obj -
Obj -	Obj -
Obj -	Obj -
Goal –	Goal –
1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC	1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC
Obj -	Obj -
Obj -	Obj -
Obj -	Obj -

Communication

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Functional Life

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Learning Strategies

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Social/Emotional

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

Goal –

1.S 2.B 3.C 4.SB 5.SC 6.BC 7.SBC

Obj -

Obj -

Obj -

W – weekly

M – monthly

m - minutes

Service Providers

1.LI Teacher M/M	a – yes	b – no			
General Education	a – yes	b – no	W	M	m _____
Resource Room	a – yes	b – no	W	M	m _____
Therapy Room	a – yes	b – no	W	M	m _____
Self-Contained	a – yes	b – no	W	M	m _____
Community	a – yes	b – no	W	M	m _____
Consult	a – yes	b – no	W	M	m _____
2.LI Teacher M/S	a – yes	b – no			
General Education	a – yes	b – no	W	M	m _____
Resource Room	a – yes	b – no	W	M	m _____
Therapy Room	a – yes	b – no	W	M	m _____
Self-Contained	a – yes	b – no	W	M	m _____
Community	a – yes	b – no	W	M	m _____
Consult	a – yes	b – no	W	M	m _____
3.SLP	a – yes	b – no			
General Education	a – yes	b – no	W	M	m _____
Resource Room	a – yes	b – no	W	M	m _____
Therapy Room	a – yes	b – no	W	M	m _____
Self-Contained	a – yes	b – no	W	M	m _____
Community	a – yes	b – no	W	M	m _____
Consult	a – yes	b – no	W	M	m _____
4.Counselor	a – yes	b – no			
General Education	a – yes	b – no	W	M	m _____
Resource Room	a – yes	b – no	W	M	m _____
Therapy Room	a – yes	b – no	W	M	m _____
Self-Contained	a – yes	b – no	W	M	m _____
Community	a – yes	b – no	W	M	m _____
Consult	a – yes	b – no	W	M	m _____
5.School Psychologist	a – yes	b – no			
General Education	a – yes	b – no	W	M	m _____
Resource Room	a – yes	b – no	W	M	m _____
Therapy Room	a – yes	b – no	W	M	m _____

	Self-Contained	a – yes	b – no	W	M	m_____
	Community	a – yes	b – no	W	M	m_____
	Consult	a – yes	b – no	W	M	m_____
6.	Clinical Psychologist	a – yes	b – no			
	General Education	a – yes	b – no	W	M	m_____
	Resource Room	a – yes	b – no	W	M	m_____
	Therapy Room	a – yes	b – no	W	M	m_____
	Self-Contained	a – yes	b – no	W	M	m_____
	Community	a – yes	b – no	W	M	m_____
	Consult	a – yes	b – no	W	M	m_____
7.	EI Teacher	a – yes	b – no			
	General Education	a – yes	b – no	W	M	m_____
	Resource Room	a – yes	b – no	W	M	m_____
	Therapy Room	a – yes	b – no	W	M	m_____
	Self-Contained	a – yes	b – no	W	M	m_____
	Community	a – yes	b – no	W	M	m_____
	Consult	a – yes	b – no	W	M	m_____
8.	OT	a – yes	b – no			
	General Education	a – yes	b – no	W	M	m_____
	Resource Room	a – yes	b – no	W	M	m_____
	Therapy Room	a – yes	b – no	W	M	m_____
	Self-Contained	a – yes	b – no	W	M	m_____
	Community	a – yes	b – no	W	M	m_____
	Consult	a – yes	b – no	W	M	m_____
9.	Physical Therapist	a – yes	b – no			
	General Education	a – yes	b – no	W	M	m_____
	Resource Room	a – yes	b – no	W	M	m_____
	Therapy Room	a – yes	b – no	W	M	m_____
	Self-Contained	a – yes	b – no	W	M	m_____
	Community	a – yes	b – no	W	M	m_____
	Consult	a – yes	b – no	W	M	m_____

Appendix G

Records Review Procedural Protocol

Use the Record Review form and fill in student file assigned number

Step 1

Use IEP to fill out Age at IEP (Take birth date and subtract from IEP date, use whole year only (should round up or down) Date of IEP meeting, type of IEP meeting, gender and grade.

Step 2

Use Assessment Plan to fill out type of assessment from the reasons given and date of Assessment plan. Use assessment plan to determine which areas were requested for assessment – circle yes or no. If other areas of assessment were requested fill them in under other. OPE is listed under Language. Write in any that are not on the list. Mark if the assessment plan listed assessors. Then mark each category.

Step 3

If another assessment plan was made after Elig mark yes and circle the purpose.

Step 4

Use the Eligibility report to circle yes or no if the area had been assessed. First check to see what is listed under Tests administered section. Next check to see if the tests are listed under the synthesis section if not listed under the Test administered section. A current date should be given that goes along with the Eligibility report or it should be considered a record review if older than one year and not administered as part of this assessment.

Step 5

If information from the assessment is reported in the synthesis than yes can be circled, if not than no must be circled.

Step 6

If the assessment reports any information that meets the set qualifications for social, behavioral, or communication that area should be circled yes, if not than it should be circled no. (a) Behavioral Functioning - how the student acts or responds to stimuli in his/her environment; (b) Communication Functioning - how the student expresses or receives verbal and non-verbal language to and from others; and (c) Social Functioning - how the student relates or interacts with others. Information may range from a sentence to a full account.

Step 7

Review IEP for Goals & Objectives. Note Goal and objective numbers using the IEP guide and if the goal is listed as social, behavioral, communication or a combination. If there is a goal or objective not from the guide that appears to be in the social, behavioral, or communication area then write it out.

Step 8

Mark whether each type of service provider is listed on the IEP, for which location, weekly or monthly and the number of minutes for each.

References

- Achenbach, T. M. (2005). Advancing assessment of children and adolescents: Commentary on evidenced-based assessment of child and adolescent disorders. *Journal of Clinical Child and Adolescent Psychology, 34*, (3), 541-547.
- Adreon, D., & Durocher, J. S. (2007). Evaluating the college transitional needs of individuals with high-functioning autism spectrum disorders. *Intervention in School and Clinic, 42*, (5), 271-279.
- Advancing Futures for Adults with Autism (n.d.). 2009 Think Tank. Retrieved May 14, 2009, from <http://www.affa-us.org/site/c.IIYIkNZJuE/b.5063863/k.BE3C/Home.htm>.
- American Association on Intellectual and Developmental Disabilities (2010a). *Diagnostic Adaptive Behavior Scales*. Retrieved February 19, 2011 from http://www.aamr.org/content_106.cfm?navID-23
- American Psychiatric Association. *Diagnostic and statistical manual of mental disorders, 4th edition, text revision (DMS-IV-TR)*. Washington, DC: American Psychiatric Publishing; 2000.
- Aspy, R., & Grossman, B.G. (2007). Assessing autism spectrum disorders. *Autism Advocate*, Third Edition.
- Attwood, T (2008). *The Complete Guide to Asperger's Syndrome*. Philadelphia, PA. Jessica Kingsley Publishers.
- Barnhill, G. P. (2002). Behavioral, social, and emotional assessment of students with ASD. *Assessment for Effective Intervention, 27*, (1&2), 47-55.

- Bellini, S., & Hopf, A. (2007). The development of the Autism Social Skills Profile: A preliminary analysis of psychometric properties. *Focus on Autism and Other Developmental Disabilities, 22* (2), 80-87.
- Boscardin, M. L. (2005). The administrative role in transforming secondary schools to support inclusive evidence-based practices. *American Secondary Education, (3)*, 21-32.
- California Department of Developmental Services. (2003) *Autism spectrum disorders – Changes in the California caseload. An update: 1999-2002*. Retrieved June 28, 2008, from <http://www.dds.ca.gov/autism>
- Callahan, K., Henson, R. K., & Cowan, A. K. (2008). Social validation of evidence-based practices in autism by parents, teachers, and administrators. *Journal of Autism and Developmental Disorders, 38*, 678-692.
- Cederlaund, M., Hagberg, B., Billstedt, E., Gillberg, I.C., & Gillberg, C. (2008). Asperger syndrome and autism: A comparative longitudinal follow-up study more than 5 years after original diagnosis. *Journal of autism and Developmental Disorders, 38*, 72-85.
- Centers for Disease Control. (2005). *How common is autism spectrum disorder (ASD)*. Retrieved June 28, 2008, from <http://www.cdc.gov/ncbddd/autism/>
- Channon, S., Charman, T., Heap, J., Crawford, S., & Rios, P. (2001). Real-life-type problem-solving in Asperger's syndrome. *Journal of Autism and Developmental Disorders, 31*, 461-469.
- Drymond, S. K., Gilson, C. L., & Myran, S. P. (2007). Services for children with autism spectrum disorders. *Journal of Disability Policy Studies, 18*, 133-147.

- Etscheidt, S. (2003). An analysis of legal hearings and cases related to individualized education programs for children with autism. *Research and Practice for Persons with Severe Disabilities*, 28, 51-69.
- Etscheidt, S. (2006). Behavioral intervention plans: pedagogical and legal analysis of issues. *Behavioral Disorders*, 31, 223-243.
- Graetz, J. E., & Spampinato, K. (2008). Asperger's syndrome and the voyage through high school: not the final frontier. *Journal of College Admission*, Winter.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Teaching Exceptional Children*, 67, 331-344.
- Harris, S. L., & Glasberg, B. A. (2007). Functional behavioral assessment in practice; concepts and applications. In: Jacobs, J. W., Mulick, J. A., & Rojahn, J. (Eds.) *Handbook of intellectual and developmental disabilities*. Springer-Verlag, New York, LLC.
- Harrison, J. (1998). Improving learning opportunities in mainstream secondary schools and colleges for students on the autistic spectrum. *British Journal of Special Education*, 2, 179-183.
- Harvey, C. (2004). Special education solutions in the age of NCLB. *T H E Journal*, 31(10), 68-68. Retrieved August 21, 2008, from Professional Development Collection database.
- Herzinger, C. V., & Campbell, J. M. (2007). Comparing functional assessment methodologies: A quantitative synthesis. *Journal of Developmental Disorders*, 37, 1430-1445.

- Howlin P. (2005) Outcomes in autism spectrum disorders. In: Volkmar, F. R., Paul, R., Klin, A., & Chen, D. (Eds.) *Handbook of autism and pervasive developmental disorders*. 3rd ed. Vol II. Hoboken, NJ: John Wiley & Sons, 201-220.
- Hinch-Ownby, M. (2008). Transitions of autistic teens. Retrieved May 23, 2009, from http://autismaspergerssyndrome.suite101.com/article.cfm/transitions_for_autistic_teens.
- Humphrey, N., & Lewis, S. (2008). Make me normal. *Sage Publications and the National Autism Society, 12*, 23-46.
- Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 et seq. (2004) (reauthorization of the Individuals with Disabilities Education Act of 1990).
- Institute of Education Sciences (2007). *Secondary school experiences of students with autism*. Retrieved April 14, 2008 from http://www.nlts2.org/fact_sheet/2007_04.html.
- Johnson, C. P., & Meyers, S. M. (2007). Identification and evaluation of children with autism spectrum disorders. *Pediatrics, 120*, (5), 1183-1215.
- Klin, A., & Volkmar, F.R. (1995). Asperger's syndrome guidelines for assessment and diagnosis. Retrieved April 23, 2008 from <http://www.med.yale.edu/chldstdy/autism/asdiagnosis.html>.
- Klin, A., & Volkmar, F.R. (2003). Asperger syndrome: Diagnosis and external validity. *Child and Adolescent Psychiatry Clinics of America, 12*, 1-13.
- Klin, A., & Volkmar, F. R. (2005). Editorial preface. *Journal of Autism and Developmental Disorders, Vol. 35*, (2), 141-143.

- Luiselli, J. K., Campbell, S., Cannon, B., DiPietro, E., Ellis, J. T., Taras, M., & Lifter, K. (2001). Assessment instruments used in the education and treatment of persons with autism: brief report of a survey of national service centers. *Research in Developmental Disabilities, 22*, 389-398.
- MacNeil, B. M., Lopes, V. A., & Minnes, P.M. (2009). Anxiety in children and adolescents with autism spectrum disorders. *Research in Autism Spectrum Disorders, 3*, 1-21.
- McAfee, J. (2002). *Navigating the social world: A curriculum for individuals with Asperger's syndrome, high functioning autism, and related disorders*. Arlington, TX: Future Horizons Inc.
- Myers, S. M., & Johnson, C. P. (2007). Management of children with Autism spectrum Disorders. *Pediatrics, 120* (5), 1162 – 1182.
- National Research Council. (2001). *Educating children with autism*. Washington D.C.: Author
- Newman, L. (2007). *Secondary School Experiences of Students with Autism*. Menlo Park, CA. SRI International. Available at http://www.nlts2.org/fact_sheets/2007_04.html
- Ozonoff, S., Goodin-Jones, B. L., & Solomon, M. (2005). Evidenced-based assessment of autism spectrum disorders in children and adolescents. *Journal of Child and Adolescent Psychology, 34*, (3), 523-540.
- Saulnier, C. A., & Klin, A. (2007). Brief report: Social and communication abilities and disabilities in higher functioning individuals with autism and Asperger syndrome. *Journal of Autism and Developmental Disorders, 37*, 788-793.

- Siegel, B. (1996). *The world of the autistic child*. New York, NY: Oxford University Press.
- Shriver, M. D., Allen, K. D., & Mathews, J. R. (1999). Effective assessment of the shared and unique characteristics of children with autism. *School Psychology Review, 28* (4), 538-558.
- Sparrow, S.S., Cicchetti, D.V., and Balla, D.A. (2005). *Vineland II: A Revision of the Vineland Adaptive Behavior Scales: I. Survey/Caregiver Form*. Circle Pines: American Guidance Service.
- TEACCH (n.d.) *A family's reference guide to services for youth and young adults with autism*. Retrieved April 14, 2008 from <http://www.teacch.com/Attachments/FamilyServiceGuide0410.pdf>.
- Tincani, M. (2007). Beyond consumer advocacy. *Intervention in School and Clinic, 43*, (1), 47-51.
- United States Congress Public Law 107–110. (2002). No Child Left Behind Act. Retrieved 27 April 2008, from <http://www.ed.gov/policy/elsec/leg/esea02/107-110.pdf>.
- Venter, A., Lord, C., & Schopler, E. (1992). A follow-up study of high –functioning autistic Children. *Journal of Child Psychology and Psychiatry, 33*, 489-507.
- White, S. W., Scahill, L., Klin, A, Koenig, K., & Volkmar, F. R. (2007). Educational placements and service use patterns of individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 37*, 1403-1412.

Wilczynski, S. M., Menousek, K., Hunter, M., & Mudgal, D. (2007). Individualized education programs for youth with autism spectrum disorders. *Psychology in the Schools, 44*(7), 653-666.