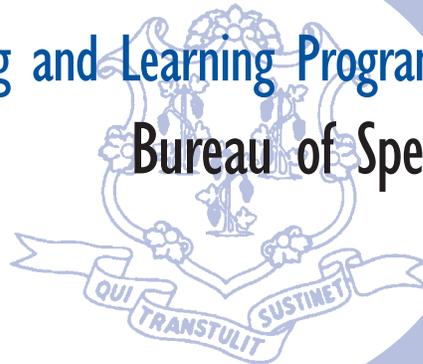


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Identification and Education of Children and Youth with Autism

CONNECTICUT STATE DEPARTMENT OF EDUCATION
Division of Teaching and Learning Programs and Services
Bureau of Special Education



July 2005

Revised 2011

State of Connecticut

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**Guidelines for the Identification and Education
of Children and Youth with Autism**

**Connecticut State Department of Education
2005
Revised 2011**

CONTENTS

Foreword	Letter from George P. Dowaliby, Chief Bureau of Special Education Connecticut State Department of Education	v
	Acknowledgments	vii
	<hr/>	
	Introduction	1
Chapter 1	Autism and Autistic Spectrum Disorders: Definitions and Distinctions	7
Chapter 2	Assessment and Eligibility	19
Chapter 3	Characteristics of Effective Programs	39
Chapter 4	Interventions	67
Chapter 5	Transitions and Transition Planning	89
	References	110

FOREWORD

Dear Colleagues:

I am pleased to share with you the *Guidelines for the Identification and Education of Children and Youth with Autism (Guidelines)*. The 2005 edition is a revision of the 1998 *Report of the Connecticut Task Force on Issues for the Education of Children with Autism*. These *Guidelines* address critical issues and current research important to individuals who are concerned about children and youth with autistic spectrum disorders. New to the *Guidelines* are chapters on “Assessment and Eligibility” and “Transition Planning.”

Implicit in this report is the strong emphasis on the coordination and collaboration among school and home in the education of children with autistic spectrum disorders. The *Guidelines* have been developed to:

- ✧ improve educational outcomes for children and youth with autistic spectrum disorders;
- ✧ define a consistent statewide base of information that provides clarity and guidance to families, Connecticut school districts, private approved programs, and practitioners;
- ✧ provide research-based information concerning educational intervention strategies for children and youth with autistic spectrum disorders;
- ✧ provide smooth transitions for children and youth with autistic spectrum disorders from the Connecticut Birth to Three System through high school (ages 3 through 21); and
- ✧ provide families and practitioners with the information, tools and resources necessary to make informed and cooperative decisions for the education of children and youth with autistic spectrum disorders in public schools and community settings.

The *Guidelines* are intended to be used as a working draft through the 2005-2006 school year. We invite you to use these *Guidelines* and provide on-going written comments and suggestions regarding their usefulness.

I am hopeful that this report will assist you to ensure that children and youth with autistic spectrum disorders will have access to appropriate educational opportunities, achieve at high levels in school, master the goals in the *Common Core of Learning*, and become productive and responsible citizens.

You are encouraged to make copies of this report, which is also available online at <http://www.state.ct.us/sde/>, and distribute it to interested parties.

Sincerely,

George P. Dowaliby, Chief
Bureau of Special Education
Connecticut State Department of Education

July 2005

ACKNOWLEDGMENTS

Sincere gratitude and recognition is extended to the many parents, general and special educators, public and private school administrators, related service professionals, higher education faculty, and Connecticut State Agency representatives who contributed their time, energy, knowledge and passion in the development of this document.

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INTRODUCTION

History of the “Report of the Connecticut Task Force on Issues for the Education of Children with Autism”

The original *Report of the Connecticut Task Force on Issues for the Education of Children with Autism* (Task Force Report) was published in 1996. The 1996 Task Force included parents of children with autism, special education teachers responsible for educating children with autism, recognized leaders with expertise in autism, and Connecticut State Department of Education consultants. Ms. Barbara Russo-Sprouls (co-chairperson), past president of the Greater Hartford Autism Society, and Mr. David B. Porteus (co-chairperson), past treasurer of the Greater Hartford Autism Society, worked with committee members to publish a report for both parents and teachers describing “... programs and techniques which have been proven to be effective in educating individuals with autism” (CT State Department of Education: Report of the CT Task Force on Issues for the Education of Children with Autism, 1998, p. v). Implicit in the original report was an emphasis on collaboration between home and school in the education of children with autism.

The original Task Force Report was revised in 1998 to include changes in the federal definition of autism, an expanded list of websites, additional resources for parents and an updated bibliography. The Individuals with Disabilities Education Act (IDEA) has been reauthorized twice since the original report: once in 1997, and again in 2004 as the Individuals with Disabilities Education Improvement Act (IDEA). Initial reports concerning IDEA 2004 indicate no changes that impact the definition or identification of children with autism.* However some changes affect the transition requirements from Birth to Three and transition activities starting at age 16. These *Guidelines* include the changes in transition requirements that go into effect in July 2005.

Need for Revision

Given recent increases in incidence and prevalence of autistic spectrum disorders along with legislative changes and research findings, a new and updated document was needed for the state of Connecticut.

The frequency of autism in Connecticut increased from 661 K-12 students in 1996 to 2,154 in 2003 based upon December 1 student data in 1996 and 2003, respectively. During the same interval, the prevalence rate increased from 1.2 K-12 students per thousand to 3.7. The increase in the incidence of autism in the state of Connecticut mirrors the increases reported nationally (24th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act). Specifically, according to estimates by the U.S. Accountability Office (2005), the prevalence of autistic spectrum disorders ranges from 2 to 6 children per 1,000.

These sharp increases in children being identified as having an autistic spectrum disorder have prompted a nationwide media explosion. It is difficult to go a full week without reading an article, seeing a news program or listening to a radio program on some aspect of autism. A Google search on

*The *Guidelines* will use the phrases “children with autism” or “students with autism” throughout the document to refer to school-aged students (3-21) who have been found eligible for special education and related services under the IDEA “autism” disability category.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

the Internet using the word “autism” produced 7,470,000 references in April 2005. [Six years later, in July 2011, a search produces 10 times that number, more than 74 million].

Since the publication of the original Task Force Report (1996) and the revision (1998) empirical research, instructional strategies and techniques, federal legislation and new information about autistic spectrum disorders have emerged. Publication of *Educating Children with Autism* (The National Research Council; NRC, 2001) has provided families and practitioners with an up-to-date research-based resource that integrates the scientific, theoretical, and policy literature and created a framework for evaluating the scientific evidence concerning the effects and features of educational interventions for young children with autism.

In addition to the reauthorization of IDEA in 2004, the national and state context of education has changed dramatically since the original Task Force Report was issued. Nationally, enactment of the No Child Left Behind Act (NCLB) has changed the landscape of education for all children. In particular, NCLB places emphasis on achievement (proficiency) for all students and upon accountability, identification of schools and districts in need of improvement, continuous student assessment, focus on evidence based instruction, expanded parental options, definition of highly qualified teachers and persistently dangerous schools (www.ed.gov/nclb).

A major initiative in Connecticut, corresponding with the requirements of NCLB, is to close Connecticut’s achievement gaps “... between students who are wealthier and poorer; minority and nonminority; disabled and non-disabled; male and female; urban, suburban and rural” (Commissioner of Education, Betty J. Sternberg, *New Haven Register*, December 15, 2003). In addition to a commitment to closing achievement gaps, the Connecticut State Department of Education is working closely with school districts to reduce the overrepresentation of minority students in special education. In combination, these two state initiatives focus attention on providing all children with disabilities access to the general education curriculum, equity in identification procedures, and access to individually designed instruction in the least restrictive environment.

The following Connecticut state documents articulate desired educational outcomes and shape the context of instruction for all children eligible for special education and related services:

1. The Connecticut State Board of Education *Position Statement on the Education of Students with Disabilities* (January 3, 2001)
(<http://www.sde.ct.gov/sde/lib/sde/pdf/bord/disabulitie.pdf>)
2. The Connecticut State Department of Education and the Connecticut Birth to Three System Continuous Improvement Plan (CIP), Birth to 21 (2003-2004)
(<http://www.ctserc.org/artivles/CIPT%20brochure.pdf>)
3. *P. J. et al. v State of Connecticut, Board of Education Settlement Agreement*
(http://www.sde.ct.gov/sde/lib/sde/pdf/deps/sa/sa_pj_final02.pdf)
4. The Connecticut State Board of Education “Position Statement on Educational Technology and Information Literacy” (December 2004)
(http://www.ct.gov/cen/lib/cen/sde_position_statement_on_ed_tech.pdf)

In an effort to keep current with research and state and federal mandates, and to provide Connecticut’s students, families and instructional staff with current, research-based information, the Connecticut State Department of Education in 2002 embarked on revising the *Report of the Connecticut Task Force on Issues for the Education of Children with Autism*, which resulted in the current document.

Revision Process

In 2002, the Bureau of Special Education and SERC (Special Education Resource Center) initiated an information-gathering process that was made up of the following steps:

1. Conducting seven focus groups comprised of parents, public and private school personnel, private consultants, Regional Education Service Center (RESC) staff, university faculty, and medical professionals. Focus groups were convened in each of the six RESC regions and the seventh was conducted in Middletown for medical and academic professionals. An outside company, Words & Numbers Research, Inc., conducted the focus groups from January 8, 2003, to February 4, 2003;
2. Meeting with the writing members of the original Task Force Report (May 6, 2003);
3. Soliciting written feedback from interested people who were not invited to or could not participate in the focus groups; and
4. Writing to each state director of special education to ask for any information that might be helpful in the revision process.

Focus Groups

Focus group participants were asked to respond to the following questions. In addition, individuals who did not participate in one of the focus groups had an opportunity to respond in writing to the same set of questions (see #3 above).

1. What specific revisions do you think are necessary in the *content* of the Task Force Report in order to provide clarity and guidance to Connecticut School Districts, private approved programs, families, and practitioners?
2. What specific revisions do you think are necessary in the *format* of the Task Force Report in order to provide clarity and guidance to Connecticut School Districts, private approved programs, families, and practitioners?

Carol and Carol (2003) submitted “Updating the Report of the Connecticut Task Force on Issues for the Education of Children with Autism: A Report of Focus Group Findings” to the Connecticut State Department of Education in April 2003.

Working Process

Following the submission of the report, a committee was charged with the responsibility of rewriting the Task Force Report. This “Autism Writing Committee” (the Committee) was comprised of parents of children and youth with autism, special education teachers of children with autism, related services personnel, special education administrators, parent advocates, RESC staff, private consultants, university faculty, and representatives from state agencies and SERC. Since the revised report discusses issues related to children with autism ages 3 to 21, parents, teachers, related services staff and administrators spanning pre-K to grade 12 were invited to participate as committee members. The Committee had its first meeting on October 8, 2003.

For information about children with autistic spectrum disorders under the age of 3, see CT Birth to Three System, Service Guidelines #1: Intervention Guidance for Service Providers and Families of Young Children with Autistic Spectrum Disorder, 2002 (www.birth23.org).

Purpose of the New Guidelines

The revision of the original Task Force Report takes the form of “Guidelines for the Identification and Education of Children and Youth with Autism” (Guidelines). The *Guidelines* were developed for families and service providers for the following purposes:

1. To improve educational outcomes for children and youth with autistic spectrum disorders.
2. To define a consistent statewide base of information that provides clarity and guidance to families, Connecticut school districts, private approved programs, and practitioners.
3. To provide research-based information concerning educational intervention strategies for children and youth with autistic spectrum disorders.
4. To provide smooth transitions for children and youth with autistic spectrum disorders from the Connecticut Birth to Three System through high school (ages 3 through 21).
5. To provide families and practitioners with the information, tools and resources necessary to make informed and cooperative decisions for the education of children and youth with autistic spectrum disorders in public schools and community settings.

In preparing the *Guidelines*, the following two critical questions were posed:

- ❖ How do the *Guidelines* support or advance learning and positive outcomes for children and youth with autistic spectrum disorders as well as support their families?
- ❖ How do the *Guidelines* support or model evidence-based instruction for children and youth with autistic spectrum disorders?

Grover J. Whitehurst, Assistant Secretary, Educational Research and Improvement, United States Department of Education, in a PowerPoint presentation defined evidence-based education (EBE) as “The integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction” (www.ed.gov/nclb/methods/whatworks/eb/edlite-slide001.html; Student Achievement and School Accountability Conference: Evidence-Based Education, October 2002). Whitehurst went on to say that both professional wisdom and empirical evidence are necessary. Without professional wisdom education cannot adapt to local circumstances or operate intelligently in the many areas in which research evidence is absent or incomplete, and without empirical evidence education cannot resolve competing approaches, generate cumulative knowledge and avoid fad, fancy and personal bias. The term “evidence-based education” is considered to be synonymous with evidence-based instruction and evidence-based practices.

The recommendations and information provided in the *Guidelines* are based upon a review of research and state and federal legislation concerning current assessment and eligibility criteria, characteristics of effective educational programs, and evidence-based education and transitional strategies and activities.

The *Guidelines* are not intended to serve as an endorsement of any single theoretical or instructional approach. Autism is a spectrum disorder that impacts each child and family in unique ways. Consequently, a specific intervention procedure may not be appropriate for all children.

Principles Underlying the Guidelines

The working committee agreed upon the following set of guiding principles:

1. All children with autism are valuable, can learn and are worthy of educational interventions and related services that maintain their dignity.
2. The potential of children with autism, although not always immediately evident, must always be assumed and nurtured.
3. All children with autism are entitled to a Free and Appropriate Public Education (FAPE) to assist them in reaching their potential.
4. All children with autism should have access to the general education curriculum, extracurricular activities, and time with nondisabled peers to the maximum extent appropriate.
5. Quality programs for children with autism require a commitment to cooperative team planning and instructional programming.
6. All staff working with children with autism require ongoing training.

Organization of the Guidelines

The *Guidelines* are organized into the following five sections:

1. Autism and Autistic spectrum disorders—Definition and Distinctions
2. Assessment and Eligibility
3. Characteristics of Effective Programs
4. Interventions
5. Transitions and Transition Planning

For ease of reading, each section follows the same structure:

- ✧ Content of the section
- ✧ Frequently asked questions and answers
- ✧ Appendix/resources

CHAPTER I

Autism and Autistic Spectrum Disorders—Definition and Distinctions

Autism, as defined in IDEA 1997: “...means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance. ... A child who manifests the characteristics of “autism” after age 3 could be diagnosed as having “autism” if the criteria in paragraph (c)(1)(i) of this section are satisfied.” (34 C.F.R. 1997, § 300.7(c)(1)(i))

In the current literature and research, as well as in the report *Educating Children with Autism* issued by the National Research Council (2001), autism is referred to as a descriptor, and its diagnosis is based upon observational data. The term ASD or autistic spectrum disorders is commonly used to describe the full range of the autism spectrum and reflects the general consensus that autism is a complex developmental disability whose symptoms and characteristics present in a wide variety of combinations, from mild to severe. When professionals or parents refer to different types of autism, they are often distinguishing autism from one of the other pervasive developmental disorders included in the standard reference *Diagnostic and Statistical Manual* (DSM) currently in its fourth edition (DSM-IV) (Wing, 2001).

For the purpose of this document the term “ASD” (autistic spectrum disorders) will be used synonymously with “autism” as defined in IDEA 1997. According to the National Research Council, “A child who receives a diagnosis of any autistic spectrum disorder should be eligible for special educational programming under the educational category ‘Autism’ regardless of the specific diagnostic category within the autism spectrum” (2001, p. 3). Finally, in accordance with IDEA 2004, eligibility for special education services requires that the Planning and Placement Team (PPT) determine that the disability of autism or ASD adversely affects the child's educational performance and that the child is in need of specialized instruction.

ASD are present from birth or the child's very early development, and affect essential human behaviors such as social interaction, the ability to communicate ideas and feelings, imagination, and the establishment of relationships with others (National Research Council, 2001). Current research and literature consistently refer to a basic *triad of central deficits in ASD*: social reciprocity and interaction; communication; and repetitive behavior (Wing, 2001). Additional characteristics may include sensory issues, anxiety, resistance to environmental change or change in routine, and stereotyped movements.

Frith (1991) refers to the developmental diversity of autism, and other research studies and evidence similarly indicate that autism includes a variation of symptoms and uneven development both within and among individuals. However, most experts in the field appear to agree that the key defining

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

symptom across the spectrum is a substantial impairment in social interaction (Frith, 1989; Wing, 2001). Although autistic spectrum disorders are unique in their pattern of deficits and areas of relative strengths, the triad of central deficits mentioned above generally have lifelong effects on how individuals learn to be social beings, to take care of themselves and to participate in the community (National Research Council, 2001). There is no cure for autism, but many individuals on the spectrum become highly productive, loving and contributing adults.

ASD may occur with other symptoms or disabilities, such as mental retardation and language disorders, as well as with genetic disorders such as Fragile X Syndrome, William's Syndrome, Landau-Kleffner Syndrome, and Tourette Syndrome. Further, approximately one third of the children with ASD develop a seizure pattern at some period during their life (Tuchman, 2000).

Major Strengths

Although individuals with ASD experience many challenges throughout their lives, it is important to recognize that not all of the traits associated with this disorder are negative. Many individuals on the spectrum become highly productive contributing adults. Individuals on the spectrum should be accepted for their unique needs and strengths. Some exhibit splinter skills while others may display extraordinary skills in very specific areas such as rote memorization, the arts, and so on. Individual strengths often serve students with ASD well in overcoming or compensating for difficulties.

The following is an overview of the major abilities and strengths common among individuals with ASD:

- ✧ Understand concrete concepts very well
- ✧ Memorize rote material easily and quickly
- ✧ Recall visual images and memories easily
- ✧ Think in a visual way
- ✧ Learn chunks of information quickly
- ✧ Learn to decode written language at an early age (hyperlexia)
- ✧ Have extraordinarily good long-term memory
- ✧ Understand and use concrete rules and sequences
- ✧ Be perfectionistic in approach to tasks
- ✧ Be very precise and detail oriented
- ✧ Be depended upon to maintain schedules and to be on time
- ✧ Have average or even way above average intelligence
- ✧ Be honest, even to a fault
- ✧ Be extremely focused, if it is a pleasurable task, (and which may be the tasks others do not want to do)
- ✧ Be charming in their innocence
- ✧ Have difficulty being devious
- ✧ Have a strong sense of integrity
- ✧ Have an excellent sense of direction
- ✧ Be very compliant when expectations are clearly understood
- ✧ Be very genuine; may not understand the motive behind trying to impress others, and therefore don't bother

(CT Autism Spectrum Resource Center, 2003, p. 4)

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Outcomes for individuals on the spectrum are closely related to their overall level of ability. Thus, research and clinical experience have demonstrated a wide range of outcomes in adult life, from total dependence to independence in spite of residual disabilities (Wing, 2001). Even though there is no cure for autism, with appropriate treatment, some behaviors may change or diminish over time. Many individuals with autism enjoy their lives and contribute to their community in meaningful ways, and others have made extraordinary contributions to society in their fields of expertise including Temple Grandin, Stephen Shore, and Donna Williams, to name a few.

Origin

The origin of autism is generally agreed upon in the current research and literature. That is, autism is a developmental disorder of neurobiological origin that is defined on the basis of behavioral and developmental features. Recent biological research, such as genetics, points to important implications for families of children with autistic spectrum disorders (National Research Council, 2001). However, there is no clear evidence that autism is due to a single cause, and it is *not* a disorder caused by poor parenting or an unemotional “refrigerator mother” as posited by Bruno Bettelheim.

Uta Frith, a research scientist at the MRC Cognitive Development Unit in London, believes that the current research suggests “we should not just think about “the” cause for autism, but about a long causal chain” (Frith, 1991, p. 80) and proposes a “hazard, havoc, harm” model: ...The hazard can be of many kinds, including faulty genes, chromosome abnormality, metabolic disorder, viral agents, immune intolerance and anoxia from perinatal problems. We can assume that any of these hazards has the potential to create havoc in neural development. Owing to the upheaval, lasting harm may be done to the development of specific brain systems concerned with higher mental processes. The harm may be mild or severe, but always involves the developmental arrest of a critical system at a critical point in time. It is our hypothesis that only then will autism occur. (Frith, cited in Holmes, 1998, p. 24)

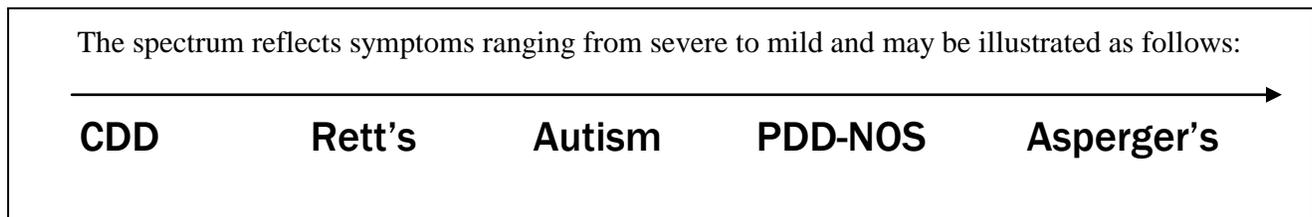
Finally, and most important, is the clear evidence in the research and the literature that *autism is not an emotional disturbance*.

Autistic spectrum disorders are defined more specifically in two internationally recognized systems: the International Statistical Classification of Diseases and Related Health Problems (ICD-10) published by the World Health Organization and the *Diagnostic and Statistical Manual (DSM IV)* of the American Psychiatric Association (1994). The name used in both systems to cover ASD is Pervasive Developmental Disorder (PDD). There is an increasing call from researchers and clinicians to use the term ASD instead of PDD. Based upon the DMS IV, the major characteristics of the subgroups within autistic spectrum disorders as of this time are as follows.

Autistic Spectrum Disorders

Childhood Disintegrative Disorder
Characterized by normal development for at least the first two years, significant loss of previously acquired skills.
Rett's Disorder
A progressive disorder which, to date, has been found only in girls. Period of normal development and then loss of previously acquired skills, loss of purposeful use of hands replaced with repetitive hand movements beginning at the age of 1-4 years.
Autistic Disorder
Impairments in social interaction, communication, and imaginative play prior to age 3 years. Stereotyped behaviors, interests and activities.
Pervasive Developmental Disorder – Not Otherwise Specified
Commonly referred to as atypical autism, a diagnosis of PDD-NOS may be made when a child does not meet the criteria for a specific diagnosis, but demonstrates a severe and pervasive impairment in specified behaviors.
Asperger's Disorder
Characterized by impairments in social interactions and the presence of restricted interests and activities, with no clinically significant general delay in language, and testing in the range of average to above average intelligence (American Psychiatric Association, 1994).

For a complete description of autistic spectrum disorders see DSM-IVR, Pervasive Developmental Disorders.



Rett's (below 1 in 10,000 children) and Childhood Disintegrative Disorders (1 in 50,000 children) are less common than Autism (Volkmar, Lord, Bailey, Schultz, & Klin, 2004).

Nonverbal learning disability (NLD) is not considered a classification on the spectrum. The research and literature regarding the inclusion of NLD on the spectrum is mixed. Opinions of experts in the field differ, with no preponderance of evidence showing that NLD belongs on the spectrum. While children with NLD have many of the same social and pragmatic language difficulties, they are less likely to exhibit the intense, single-minded focus that children with Asperger Syndrome do (Powers & Poland, 2002).

Prevalence Rates for Connecticut

The prevalence rate of children with autism in Connecticut has shown a dramatic increase since 1996 as illustrated in data collected by the Connecticut State Department of Education (see Figure 1). Specifically, the prevalence rate increased from 1.2 K-12 students per thousand in December 1996 to 3.7 K-12 students per thousand in December 2003.

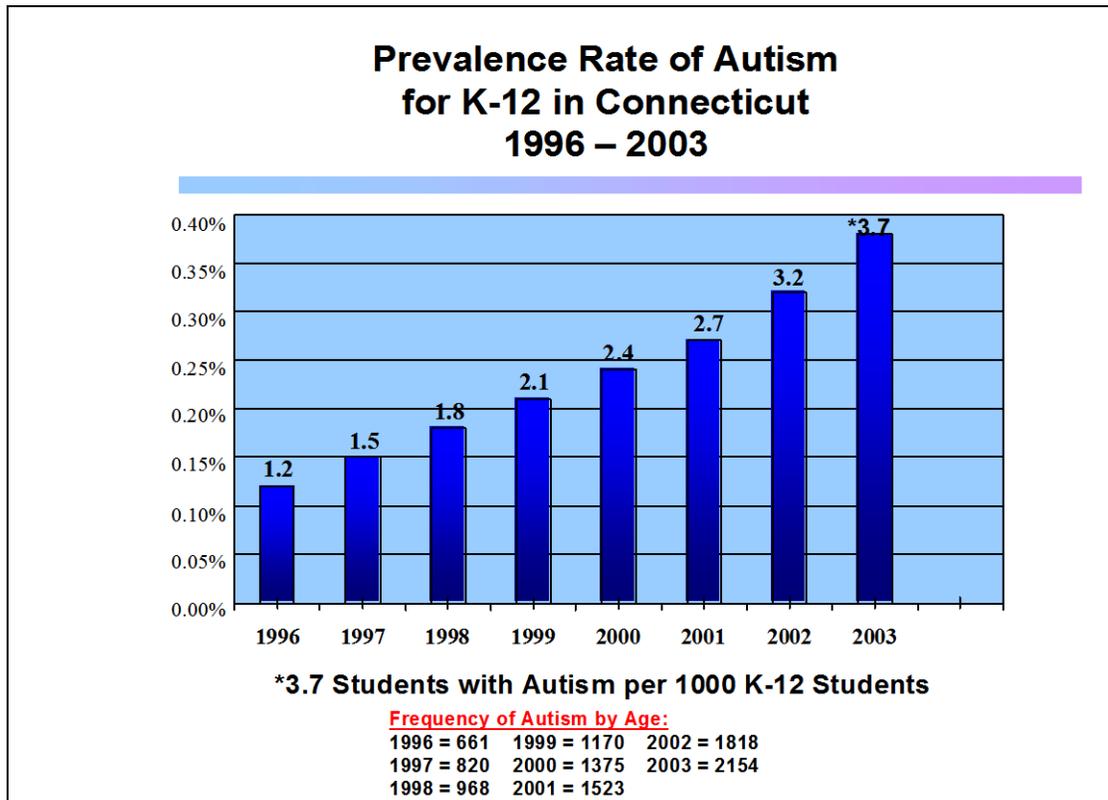
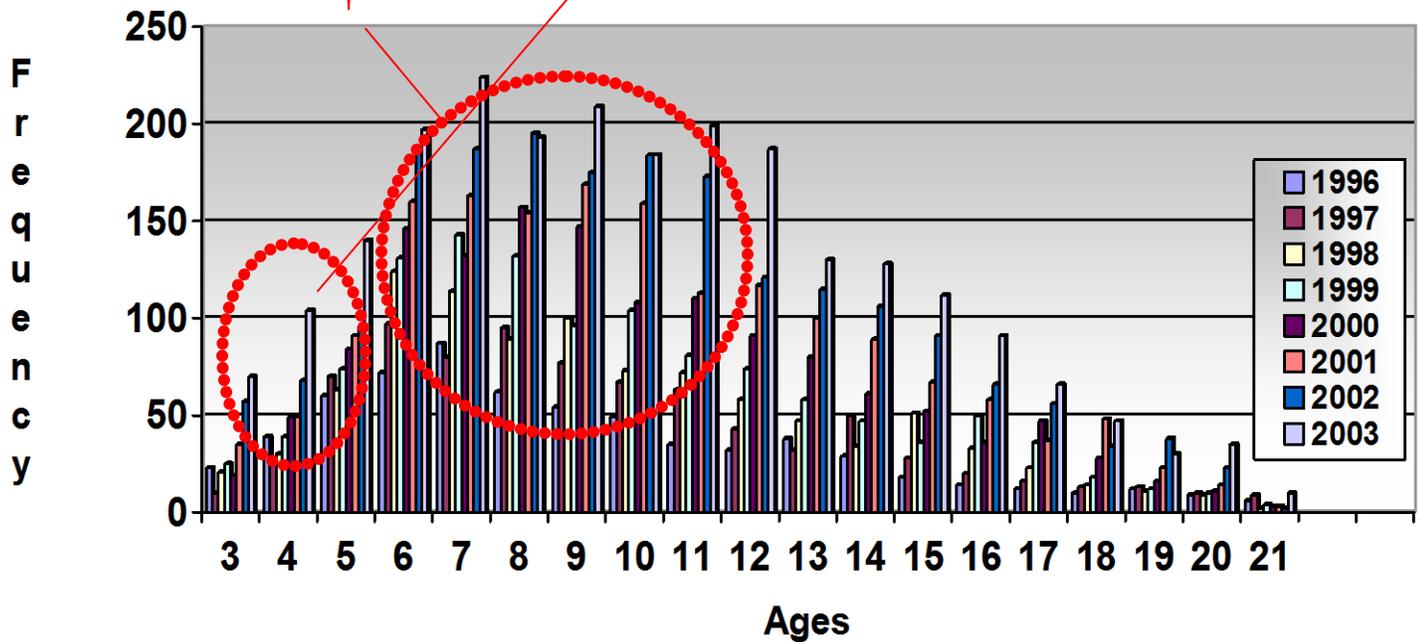
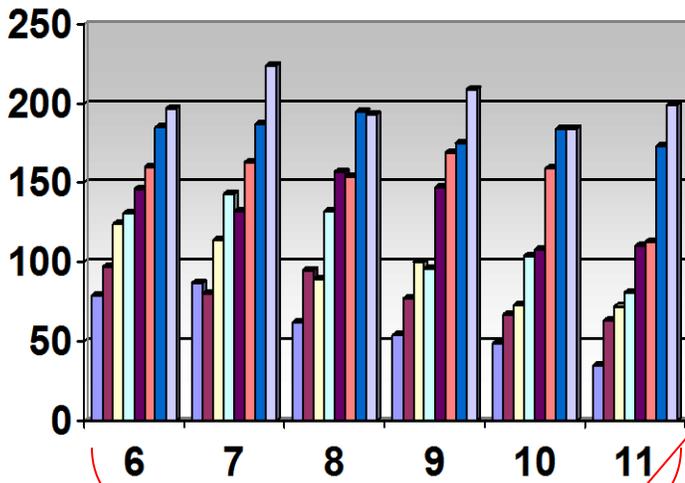
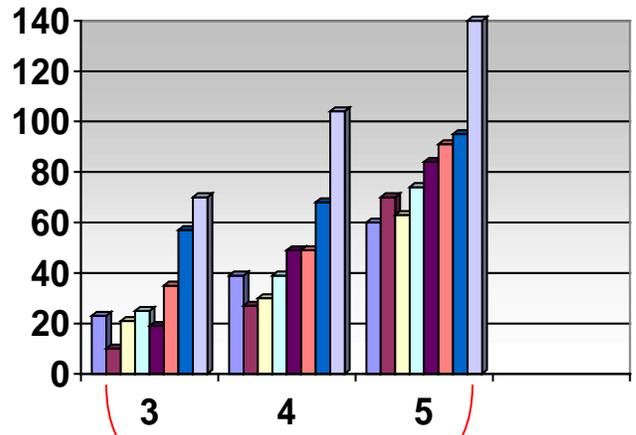


Figure 1. Prevalence rates of autism in the state of Connecticut 1996-2003

The data reveal certain trends in this increase of children on the spectrum (see Figure 2). Data for the 3- to 5-year-old age group indicate the trend of identifying a greater number of children with ASD at each respective age and successive year. This increase may suggest earlier identification of children on the spectrum who are receiving Birth to Three services and/or preschool special education services in the public schools.

The data for the 6- to 11-year-old age group indicate that a total of 359 children were identified in December 1996, whereas 1,206 children were identified in December 2003. Although this also illustrates an increase, it suggests a steady pattern of increase of approximately 100 children per year. When looking at specific ages in this category, a stabilization of the frequency trend appears. For example, the data for the middle school age group (ages 12 to 14 years) rose from 99 children on the spectrum in 1996 to 445 children in 2003, illustrating and mirroring a steady increase in numbers as the earlier identified children move on to the higher grades.

Frequency Trends



The increase of the frequency of autism in Connecticut mirrors the increases reported nationally (U. S. Department of Education, 2002). Indeed, nationally, the incidence of individuals on the spectrum is reported to be as many as six per thousand (Centers for Disease Control and Prevention, 2004, <http://www.cdc.gov/ncbddd/dd/aic/about/default.htm>, retrieved, March 2005).

Based on statistics from the U.S. Department of Education and other governmental agencies, autism is growing at a rate of 10-17 percent per year. At these rates, the Autism Society of America estimates the prevalence of autism could reach 4 million Americans in the next decade. These overall incidence rates of autism are consistent around the world, including autism being four times more prevalent in boys than in girls (Autism Society of America, 2000).

[In December 2009, the Centers for Disease Control and Prevention reported an average of 1 out of 110 children was classified with an autism spectrum disorder, including about 1 in 70 boys (2006 data, <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5810a1.htm>, retrieved July 18, 2011). The Autism Society of America estimates that the total number of Americans with ASD is 1.5 Million (<http://www.autism-society.org/abot-autism>, retrieved July 18, 2011).]

Educational Classifications

For an educational classification of autism, IDEA requires that the disability adversely affect a child's educational performance. IDEA does not use the word "academic" to describe education. However, it specifies that the purpose of education is to enable the child to develop skills toward independence and meaningful community involvement as an adult.

Within the state of Connecticut several documents address definition and outcome criteria related to autistic spectrum disorder, including the following.

The Connecticut State Board of Education's *Position Statement on the Education of Students with Disabilities* (adopted January 3, 2001) clearly states that the outcomes for students include the development of abilities that will enable them to be self-sufficient, productive and contributing members of society, able to make informed personal choices and function successfully as family members, workers, learners, citizens, friends and consumers.

Connecticut's Continuous Improvement Plan (CIP) (2003-2004) also defines outcomes related to access and participation as well as community participation and employment as an outcome of instruction.

The Connecticut Framework, K-12 Curricular Goals and Standards, published in 1998 by the Connecticut State Department of Education, also includes content standards that reflect a broader definition of education. These standards are designed to provide a framework for thinking about the knowledge, skills, and understandings that all students should demonstrate and what is important for students to know and be able to do. Specific examples within the curriculum goals and standards include:

- ✧ "Identify and use ways to reduce and/or avoid threatening situations, including sexual harassment, abuse and assault." (Injury and Disease Prevention, p. 5)
- ✧ "Participate with others, despite differences that may exist." (Respect for Differences, p. 7)
- ✧ "Exercise political participation by discussing public issues, building consensus, and becoming involved in politics." (Rights and Responsibilities of Citizens, p. 14)

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

These documents reflect a broader definition of education, which implies not only acquisition of academic skills but also acquisition of social competencies in order to be participating members of society. These views are also reflected in school district outcomes or mission statements that frequently encompass competencies in academics, social skills, and civic responsibilities (see actual school mission statement, Appendix I-A).

Summary

The current Guidelines, therefore, recognize a broad definition of education that includes academics, social/emotional growth, functional skill acquisition, communication, as well as generalization and maintenance of skills. To deny students eligibility under the disability category of autism based upon academic performance alone would not reflect the state's comprehensive definition of education or the comprehensive nature of autistic spectrum disorders.

Finally, in accordance with IDEA, least restrictive environment (LRE) must be defined according to the needs of individual students. Under the general principle of LRE, students must be educated with their non-disabled peers to the maximum extent appropriate so that they may have access to general curriculum, peer relationships and other experiences afforded to all children. While some students may need some instruction in separate settings and/or in non-inclusive environments, relationships and the social skills needed to maintain them are best developed with people in the home school and community of the student.

Given that the overall goal of public education is to prepare students for their role as productive members of their community and society in general, it is imperative that students with autism receive instruction in environments where they can master and generalize skills to help them be prepared for life.

Frequently Asked Questions

1. What is an autistic spectrum disorder and how does it apply to eligibility under IDEA?

The Connecticut State Department of Education supports the National Research Council's (2001) conclusion that a child who receives a diagnosis of autistic spectrum disorder (ASD) that adversely affects educational performance should be eligible for special educational programming under the educational category of autism. ASD are complex developmental disorders of neurobiological origin that are diagnosed on the basis of behavioral and developmental features. Specifically, ASD refers to the diagnosis given to those individuals identified as meeting the descriptive characteristics of either Asperger's Syndrome, Pervasive Developmental Disorder Not Otherwise Specified, Autism, Rett's Syndrome, or Childhood Disintegrative Disorder. ASD symptoms can occur in any combination and with varying degree of severity. A consistently accepted triad of deficits characterizing ASD consists of social interaction, communication, and repetitive behaviors. These behaviors may not become apparent in infancy, but usually become obvious during early childhood (18 months to 6 years).

2. What causes autistic spectrum disorders?

ASD have no single cause. Because ASD are complex, neurobiological disorders, they are believed to develop through a long chain of events that may involve genes, chromosomes, metabolic disorders, viral agents, immune intolerances, anoxia, or any combination of these factors. These contributing factors have the potential to affect neural development that may impact an individual's behavioral and developmental characteristics, resulting in a diagnosis of ASD. ASD is not caused by poor parenting or an unemotional "refrigerator mother" as commonly believed prior to 1964.

3. What are the characteristics of people with autistic spectrum disorders?

Individuals with ASD, like most others, exhibit highly individualized deficits and strengths. Impairments are primarily found in behavioral and developmental areas, specifically: social reciprocity and interaction, repetitive behaviors, and communication. Additionally, characteristics such as resistance to changes in routine or environment, sensitivity to sensory stimulation, and stereotyped movements may also be observed in varying degrees. Significant strengths in persons diagnosed with ASD may include rote memorization, visual thinking, long-term memory, and focused attention to detail in preferred tasks that are often complex in nature.

4. How do autistic spectrum disorders adversely impact education?

Since the central deficits in ASD (i.e., social reciprocity and interaction, communication, and repetitive behaviors) affect components that are key to the educational process, ASD may adversely impact a child's performance in one, several, or all of the following areas: academics, social/emotional growth, life-skills acquisition, communication, and the ability to use and maintain skills across a range of applications and settings. Regardless of the level of disability, persons with an ASD respond well to highly structured educational settings that include appropriate supports and accommodations tailored to meet their individual needs.

5. Is there a cure for autism?

In a medical sense there is no known cure for ASD. However, research continues in the neurobiological field of medicine. Such continued research has provided a clearer understanding of ASD and has led to more effective treatments and therapies. With an appropriate, comprehensive educational program, a child's behavior may change positively and to such an extent that his/her presentation may no longer meet ASD criteria. However, for the majority of children who make such gains, it does not necessarily mean that the challenges associated with ASD completely disappear. ASD is typically a lifelong developmental disability.

Appendix I-A

School District Mission and Expectations for Student Learning



Mission

The primary purpose of the school district is to provide comprehensive educational opportunities for all students. A safe, challenging learning environment that responds to the changing needs of the school community is the core of academic and social growth. Programs, services and activities work together to promote learning. By fostering academic excellence and addressing students' social, cultural, artistic, physical and vocational needs, the school encourages all students to develop the motivation and capacity for lifelong learning. All students are educated to adapt to a changing world, to grow as individuals, to value differences, and to become responsible members of society.

Academic Expectations

- ✧ Students will demonstrate basic skills in critical thinking and problem solving.
- ✧ Students will develop effective skills in speaking and listening.
- ✧ Students will develop effective reading skills.
- ✧ Students will develop effective writing skills.
- ✧ Students will demonstrate the ability to use technology needed to participate in our changing society.
- ✧ Students will develop the ability to work cooperatively with others.

Social Expectations

- ✧ Students will demonstrate respect for themselves, others and school property.
- ✧ Students will demonstrate an understanding of and respect for individual difference.
- ✧ Students will demonstrate honesty, integrity, and personal responsibility.

Civic Expectations

- ✧ Students will demonstrate knowledge of their civic rights, duties and responsibilities.
- ✧ Students will engage in civic activities connected to a variety of school programs which provide experience in leadership, decision-making and community service.

CHAPTER II

Assessment and Eligibility

Diagnosis vs. Eligibility Evaluation

Families of children suspected of having ASD often find themselves caught in the confusing interface between two very different systems of care: the health care system and the educational system. This happens because ASD are defined as both clinical disorders and an educational disability, typically making a child eligible for special education services. While there is considerable overlap between these two systems, there are also significant differences between them related to the diagnosis of ASD. It is helpful to understand these differences, in an effort to clarify the meanings attached to the various diagnostic labels used to describe the difficulties presented by children with ASD.

Assessment of a Clinical Disorder

Autism, or Autistic Disorder, is defined as a clinical disorder. It is one of a group of disorders called Pervasive Developmental Disorders (PDD), which includes Asperger's Disorder, Rett's Syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorders-Not Otherwise Specified (PDD-NOS). As mentioned, criteria for a diagnosis of autism, as well as other Pervasive Developmental Disorders are described in *Diagnostic and Statistical Manual, 4th Edition* (DSM-IV), published by the American Psychiatric Association (1994).

Clinical diagnosis is made by a professional with expertise in evaluating children with a variety of behavioral and emotional disorders, including ASD. Typically, such evaluations are conducted by child psychiatrists, clinical child psychologists, clinical neuropsychologists and specially trained neurologists and developmental pediatricians. In addition, many professionals may administer brief screening tools or parent report rating scales designed to identify children who may be at risk of a pervasive developmental disorder, or who may show early signs of the disorder.

Several screening tools are currently in use, and many of them serve the very important goal of improving early detection of these disorders, thereby permitting early and more effective intervention. These include, among others, The Checklist for Autism in Toddlers (CHAT) (Baron-Cohen, Allen, & Gillberg, 1992; Baron-Cohen et al., 1996); The Modified Checklist for Autism in Toddlers (MCHAT) (Robins, Fein, Barton, & Green, 2001); The Social Communication Questionnaire (Berument, Rutter, Lord, Pickles, & Bailey, 1999); and The Autism Screening Questionnaire (Ehlers, Gillberg, & Wing, 1999).

It is important to recognize that screening tools are not designed to establish a definitive diagnosis, and therefore should not be used to make a diagnosis. Instead, they are used to identify children in need of more detailed and comprehensive assessment, which may lead to a diagnosis. In short, screening tools are designed to be very brief and easy to administer, and to initiate a process of referral for more definitive evaluation.

Clinical Diagnosis

The evaluation of a child for a clinical diagnosis of ASD should include the following:

1. A detailed family interview in order to obtain a comprehensive medical, developmental and social history of the child.
2. An autism-specific measure, which enables a clinician to evaluate social and communicative skills in the context of observed social interactions.
3. Standardized assessments of (a) cognitive ability or developmental level; (b) motor development; (c) communication skills, including both verbal and nonverbal abilities; (d) adaptive skills; and (e) social interactive abilities. Standardized measures should be supplemented by the use of observational measures and by clinical judgment. Finally, assessment of sensory processing skills may also be helpful to program planning, but it is not required to make the diagnosis. A listing of well-validated measures for clinical diagnosis is included in Appendix II-B.

Parents, and others who know the child well, must be heavily involved in the evaluation process, and some assessment should be made of familial needs and resources regarding services for the child. The behavior of children with ASD may vary widely across settings and across skill domains. In addition, the behavioral features associated with ASD vary considerably with age. It is, therefore, critical that information be obtained about a child's functional abilities across multiple tasks and multiple settings, and that behavioral data be evaluated within the context of a child's developmental level.

All children should also receive a hearing screening to rule out hearing impairments, and based upon the results of the screening, a full hearing evaluation. In addition, many children are referred for a series of blood tests to determine lead levels, hemoglobin levels, and thyroid functioning, since abnormalities in these areas may be related to behaviors similar to those associated with ASD. Finally, children should be referred for chromosome studies to assess the possibility of Fragile X Syndrome, a genetic disorder with behavioral features similar to ASD. Since approximately 25 percent of children with autistic spectrum disorders also have a seizure disorder (Volkmar & Nelson, 1990), many children are referred for EEG studies; however, this is not done routinely.

The result of this process is the assignment of a clinical diagnosis, including any of the PDDs or a variety of related conditions (e.g., language disorder). Although clinical diagnosis is not required in order for a child to receive special education services, early diagnosis is often extremely helpful as a guide for educational planning and intervention.

Assessment of Eligibility for Special Education Services

According to the IDEA, a child is eligible for special education services if he/she meets criteria for classification in one of 13 categories outlined in the legislation, including autism. Autism is defined in IDEA as "a developmental disability significantly affecting verbal and nonverbal communication, generally evident before age 3 that adversely affects a child's educational performance" (IDEA 1997, § 300.7(c)(1)(i)). In Connecticut, the educational disability of autism is considered to encompass all of the pervasive developmental disorders.

In Connecticut, children under the age of 6 are not required to be classified into one disability category. Children aged 3 to 6 may be eligible for special education services if they have 1 of the 13

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

disabilities defined in IDEA or have a documented developmental delay in one of 5 areas (physical development, cognitive development, communication, social/emotional development, or adaptive skill) that adversely affects their education. Preschool-aged children may receive special education services based on a classification of developmental delay. By their sixth birthday, children who continue to require special education services must be assigned a classification from one of the 13 included in IDEA.

As mentioned, children are not required to have a clinical diagnosis to be eligible for special education services. Similarly, the educational classification of having autism is not necessarily synonymous with the clinical diagnosis of the same child. For example, a child might receive a clinical diagnosis of Asperger's Disorder, but be classified within the educational system as falling within the category of autism due to significant deficits in social interaction that affect his/her learning. A child does not meet criteria for autism, as defined by IDEA, if his/her education is adversely affected primarily because of an emotional disturbance.

The eligibility process for special education and related services is conducted by a multi-disciplinary Planning and Placement Team (PPT) for the sole purpose of determining if a child is eligible for special education services based on developmental delay in young children or the classification of a child as having one of the 13 disabilities outlined in IDEA, and if so, what services are necessary. Children may be referred to the PPT by teachers, parents, or educational staff to determine if an eligibility evaluation is appropriate. Once a child is referred to special education services, the school district must complete the evaluations and convene a PPT meeting to review the results within 45 school days.

34 C.F.R. § 300.532(g) requires that a child be assessed in all areas related to the suspected disability, including, if appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status and motor abilities. The multidisciplinary team that conducts the evaluation might include general and special educators, school psychologists, school nurses, speech and language pathologists, occupational therapists, physical therapists, and social workers. Professionals who conduct evaluations as part of an eligibility determination must meet professional criteria for assessment skills, and must have specific training and experience in evaluating children with ASD (34 C.F.R. 2004 § 614 (b)(3)(A)). Parents may invite additional team members as well (e.g., child advocates, specialists).

Eligibility evaluations should include the assessment of:

- ✧ cognitive skills or developmental level
- ✧ adaptive skills
- ✧ social interaction skills
- ✧ motor development
- ✧ communication skills
- ✧ social/emotional functioning
- ✧ academic achievement levels (when appropriate)
- ✧ vocational skills

All children should also receive a hearing screening to rule out hearing impairments, and based upon the results of the screening, a full hearing evaluation. Finally, many children with ASD demonstrate atypical responses to sensory input and may benefit from an assessment of sensory functioning.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Assessment measures include review of educational records, direct observation, parental interview, and administration of standardized or criterion-referenced tests. An educational evaluation, which typically refers to assessment of academic skills and achievement, may also be included as part of the eligibility determination process. While medical evaluations are not required as part of the eligibility evaluation, such evaluations may be necessary as part of a given district's evaluation when medical factors directly affect a child's ability to function in an educational setting.

When an evaluation is conducted to determine if a child meets the criteria for classification in the category of autism, autism-specific measures that include direct interaction with the child to observe social interactive behaviors must be part of the evaluation process. (Examples of well-validated measures for this purpose are included in Appendix II-B.)

Many children suspected of having a ASD exhibit challenging behaviors that make it difficult for them to function in a general education classroom. In such cases, a functional behavioral assessment should also be completed. In brief, a functional behavioral assessment should result in a behavioral support plan that identifies the function of challenging behaviors and outlines interventions to address those functions in more adaptive ways.

It is important that the assessment process include measures that will help identify specific goals and benchmarks for the individualized education program (IEP), and that help determine the need for specialized services (e.g., occupational therapy, language therapy). Additionally, assessment results should identify student strengths that can be used to develop a supportive learning environment.

If a PPT determines that additional evaluations outside of the team's competence are required to determine eligibility for services or to specify the nature of services required, the school district assumes responsibility for the cost of such evaluations. When an initial evaluation is completed by professionals outside of school district staff, it is in the child's best interest for school staff to participate actively in the evaluation process. School participation in the evaluation process can provide the evaluator with valuable academic and social performance data and assist the family and school in establishing common understandings and expectations for the development of a child's IEP.

If a parent disagrees with the results of an evaluation conducted by school staff, he/she may request that an independent evaluation be completed at public expense. The PPT may grant that request or follow due process guidelines. If a parent elects to obtain an independent evaluation at their own expense, the PPT is obligated to consider the results of such an evaluation.

Determination of a Disability

When all assessments are completed, the PPT determines whether the student demonstrates a disability based upon the available information. A disability may be measured by standardized instruments, in which case scores more than 1.5 standard deviations below the average in social interaction, communication skills, including receptive and expressive language and pragmatic skills (social language that involves three major communication skills: using language for different purposes, adapting or changing language according to the needs of the listener or situation, and following the rules for conversation and narrative (www.asha.org), and behavior (here defined as the presence of specific atypical behaviors) are considered evidence of significant disability.

Disabilities may also be measured by professional judgment, provided that individuals making such judgments have sufficient training and expertise in general assessment and autism-specific assessment. For example, children with a clinical diagnosis of Asperger's Disorder may demonstrate significant impairment as evidenced by their inability to form appropriate peer and adult relationships,

not due to emotional disturbance. These students may attain scores within normal limits on standardized cognitive tests or language measures, but observation of their social skills across multiple settings may reveal significant deficits in social interaction skills and pragmatics, and a variety of atypical behaviors that adversely affect their education.

When an impairment exists and adversely affects educational performance, it is considered a disability. An adverse effect on educational performance is defined as performance that falls significantly below average in any of the following areas:

(a) academic, (b) cognitive, (c) social, (d) behavioral, (e) communication, including pragmatics, (f) social skills, (g) fine and gross motor skills, and (h) self-help/adaptive skills. Skill deficits must be accompanied by “an inability to perform effectively most of the time despite the provision of general education modifications and supports”. (Connecticut, Department of Education, 1999, Guidelines for Speech and Language Programs: Volume II, p. 42)

A worksheet for the determining eligibility for special education services under the classification of autism is included in Appendix II-A. The worksheet is a work in progress and should be used as a “draft”. Based upon feedback the Bureau may adopt the worksheet as is or make modifications.

Children who are not found eligible for special education under the category of autism may be found to be eligible for special education services under another category, or as not eligible at all. Criteria have been developed by the Connecticut State Department of Education regarding the determination of eligibility for special education/ related support services under other classifications (e.g., Speech Language Impairment, Social-Emotional Disability, Learning Disability, Intellectual Disabilities).

Updating Initial Assessments

For children found eligible for special education services, the PPT develops an IEP. Once an IEP is developed, school staff must monitor the student’s progress toward goals on a schedule consistent with that of their peers. A formal review of progress must occur annually at a formal review meeting; however, any team member, including parents, may request a PPT meeting at any time if questions arise or changes happen that warrant special attention. In addition to the annual review, assessments must be updated no later than every three years (see 34 C.F.R. 2004, § 614 (a)(2)) to re-determine eligibility for services. The PPT designs such evaluations. The team may decide that the comprehensive assessment completed initially need not be repeated in its entirety; in that instance, only specific areas may be reassessed. Parents may also request further assessment. The results of any evaluations, including worksheets for the determination of eligibility for special education services (see Appendix II-A), must be shared with parents.

A list of measures appropriate for use in eligibility evaluations is included in Appendix II-B.

Frequently Asked Questions

1. What is the difference between a clinical diagnosis and an eligibility evaluation?

A clinical diagnosis is an effort to determine if an individual has a specific clinical disorder, such as autism or a PPD, as defined by DSM-IV and prevailing standards of clinical practice. An eligibility evaluation is an assessment conducted to determine if a student is eligible for special education and related services due to a disability as defined by state and federal statutes.

2. Is a clinical diagnosis required in order to receive special education services?

Children may be found eligible for special education services without a clinical diagnosis, if they meet the eligibility requirements delineated by state and federal statutes. However, clinical diagnoses are often helpful in describing the nature of a child's strengths and weaknesses, and for planning for effective intervention.

3. What are the appropriate qualifications of professionals who participate in an educational eligibility determination for ASD?

Professionals who conduct evaluations as part of an eligibility determination must be licensed and/or certified in their specialty area, and must meet professional criteria for assessment skills. In addition, at least one member of the team must have specific experience and training in the evaluation of children with ASD and the use of autism-specific instruments with established reliability and validity.

4. What are the appropriate qualifications of a professional who completes a clinical evaluation?

Individuals who complete clinical evaluations must be licensed and/or certified in their specialty, and must have training and expertise in the evaluation of children with a variety of behavioral and emotional disorders, including ASD. Individuals must have specific experience and training in the use of autism-specific instruments with established reliability and validity.

5. What should a comprehensive evaluation include for a child suspected as having autism?

- ✧ *Medical/developmental/social history*
- ✧ *Review of educational records*
- ✧ *Parent interview*
- ✧ *Hearing screening*
- ✧ *Direct observation of social interactive skills*
- ✧ *Standardized assessment of:*
 - ◆ *cognitive/academic skills*
 - ◆ *language, including receptive and expressive language and pragmatics*
 - ◆ *motor skills*
 - ◆ *adaptive/self-help skills*
 - ◆ *behavioral issues, including functional analysis of problem behaviors*

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ◆ *social skills including play and leisure skills and friendship patterns*
- ◆ *emotional/self-regulatory skills*
- ◆ *sensory issues, especially as they affect functional skills*
- ◆ *curriculum based assessment*
- ◆ *vocational skills, if appropriate*
- ◆ *strengths as well as weaknesses*

6. Is a medical evaluation required as part of the identification process?

A medical evaluation is not required as part of the eligibility determination process. However, since children with ASD have a relatively high incidence of medically related problems, it is prudent for families to consider obtaining medical evaluations (including chromosomal studies, metabolic studies and EEGs) outside of the PPT process to rule out the presence of related disorders.

Appendix II-A

Worksheet for Determination of Eligibility for Special Education Services under the Classification of Autism

The student should meet the criteria listed below (A-C) to be eligible for special education services due to autism:

The child:

- A.** has been evaluated by a professional with appropriate training, using an autism-specific instrument, and must be found to be functioning in the range of autistic spectrum disorders.
- B.** demonstrates a disability that adversely affects educational performance as evidenced by professional judgment and/or scores that fall significantly below average (-1.5 SDs) in all of the following areas: social interaction (*at least two of the items listed below*), verbal/nonverbal communication and atypical behaviors (*at least one of the items from each category listed below*).
- C.** does not perform effectively in the social or academic area most of the time, despite the provision of general education accommodations and supports.

Results of the Evaluation

*Indicate Yes, No, or NA for each item in the area evaluated if regarding impairment and how it was evidenced. Please also respond to the question at the end of each section.

Area	<u>Social Interaction*</u>		
	Impairment That Adversely Affects Educational Performance		
	Evidenced by Observation (O), Clinical Judgment (CJ), and/or Formal Testing (FT)		
Deficits in nonverbal communication (eye gaze, gesture)	Yes	No	NA
Limited efforts to establish joint attention or share experience	Yes	No	NA
Significant deficits in social/emotional reciprocity	Yes	No	NA
Lack of developmentally appropriate peer relations	Yes	No	NA
Lack of developmentally appropriate symbolic play/imagination	Yes	No	NA

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Inability to make functional adjustment to the social environment

Yes No NA

*Does the child meet the criteria of demonstrating at least two characteristics from this area? Yes No

Communication*

Area

Impairment That Adversely Affects Educational Performance

Evidenced by Observation (O), Clinical Judgment (CJ), and/or Formal Testing (FT)

Significant deficits in receptive language (e.g., acts as though doesn't hear although hearing is normal, doesn't respond to name, doesn't respond to verbal cues, concrete and literal comprehension)

Yes No NA

Significant deficits in expressive language (e.g., no babbling, pointing or use of gesture by 1 year of age, no single words by 16 months, doesn't combine words by 2 years, loss of language skills, echolalia, idiosyncratic use of words/phrases, pronoun reversals)

Yes No NA

Significant deficits in pragmatic skills (e.g., inability to initiate or sustain conversation, perseveration on topic, stereotypic intonation, difficulty interpreting what others think and feel, difficulty taking others' perspective, difficulty relating emotion) (Strock, 2004)

Yes No NA

*Does the child demonstrate at least one characteristic from this area? Yes No

Atypical Behaviors*

Area

	Impairment That Adversely Affects Educational Performance	Evidenced by Observation (O), Clinical Judgment (CJ), and/or Formal Testing (FT)
Restricted or repetitive interests	Yes No NA	
Stereotyped, repetitive movements	Yes No NA	
Adherence to nonfunctional routines	Yes No NA	

(Note: Children under the age of 5 who have ASD may not exhibit atypical behaviors, so the requirement that they exhibit one of the behaviors listed under that category may be waived for children aged 3-5 years.)

*Does the child demonstrate at least one characteristic from this area? Yes No

Ruling Out/Eliminating Other Factors

Have other causes/contributing factors such as medical problems, environmental or cultural factors, and emotional disturbance been ruled out as the primary cause of the student's educational difficulties?

Yes _____ No _____

Based on the above, does the child meet the criteria for classification under the category of autism?

Yes _____ No _____

Based on the above, does the child need special education and related services?

Yes _____ No _____

The PPT has reviewed the information presented and has made the determination that the child meets the criteria for eligibility for special education services as defined in IDEA and Connecticut statutes.

Date: _____

Appendix II-B Assessment Tools/Instruments

The following tables list measures in critical areas of development. The list is by no means exhaustive, but provides some information about measures commonly used when assessing a school-aged child. It is critical that evaluators be trained and experienced in the measures chosen. It is equally important that parents/caretakers be familiar with what the measures are attempting to identify and how that information will be used to help plan for their child.

Assessment Measures Specific to ASD

When a child is suspected of having an ASD, evaluators administer an instrument specifically geared to identifying ASD.

Name of Instrument	Ages Covered	Brief Description
Autism Diagnostic Interview-Revised (ADI-R) (Western Psychological Services)	12+ months	A standardized diagnostic interview that solicits detailed information from caregivers regarding social interaction, communication, and behavior. Yields classification as ASD or not. Requires training and extensive time to administer. Good evidence of reliability and validity.
Autism Diagnostic Observation Schedule – Revised (ADOS-R) (Western Psychological Services)	12+ months	Series of semi-structured tasks designed to elicit social communication, and social interactive skills and play. Trained clinicians provide ratings of reciprocal interaction and communication skills, which yield a classification as autism or ASD. Good evidence of reliability and validity.
Childhood Autism Rating Scale (CARS) (American Guidance Service)	2+ years	Widely used direct observational tool designed to be used by a trained clinician. A cutoff score identifies a child as falling within the autistic range (mild, moderate, severe) or not. Good evidence of reliability when based upon adequate sample of behavior.
Autism Screening Instrument for Educational Planning (ASIEP-2) (Pro-Ed)	18 months - adult	Screening instrument that can provide a profile of abilities in spontaneous verbal behavior, social interaction, education level, and learning characteristics. Typically administered by school psychologists or teachers, this tool is used for educational planning.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Name of Instrument	Ages Covered	Brief Description
Autism Behavior Checklist (ABC)	3 years - adult	This brief checklist is included in the ASIEP and is designed to be completed by parents or teachers. The ABC may be used to identify behaviors associated with autism, and may help structure observations. Its relationship to diagnosis is unclear.
Gilliam Autism Rating Scale (American Guidance Service)	3 - 22 years	Brief checklist of behaviors associated with autism. It is designed to be completed by parents and clinicians. Relationship to diagnosis remains unclear.

Intellectual Assessments—Standardized

Tests of intelligence yield information that give an estimation of an individual’s potential for learning based on verbal and nonverbal abilities. For standardized tests, a student’s scores may be compared to those of his/her peers. All of the tests listed below are standardized measures, which are administered individually by a certified school psychologist or licensed psychologist.

Name of Instrument	Ages Covered	Brief Description
Das-Naglieri: Cognitive Assessment System (Riverside Publishing)	5 – 17	A measure of cognitive processing that includes the following processes: planning, attention, simultaneous, and successive processing (PASS).
Differential Ability Scales (DAS) (Psychological Corporation)	2 – 17	A measure of cognitive abilities that include nonverbal reasoning, spatial ability, verbal ability, short-term memory, and speed of information processing.
Kaufman Assessment Battery for Children- 2 nd Ed. (American Guidance Service)	3 – 18	A measure that assesses cognitive functioning while minimizing verbal instructions.
Leiter International Performance Scale-Revised (Stoelting Company)	2 – 18	Measures the ability to problem solve without the use of language.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Name of Instrument	Ages Covered	Brief Description
Stanford-Binet Intelligence Scale-5 th Edition (Riverside Publishing Co.)	2 - 90+	Assessment of fluid reasoning, knowledge, quantitative reasoning, visual-spatial processing, and working memory. Compares verbal and nonverbal performance.
Test of Nonverbal Intelligence-3 (Pro-Ed)	6 through 89	A measure of aptitude, abstract reasoning, and problem solving without the use of language on the part of the administrator and the responder.
Universal Nonverbal Intelligence Test (UNIT) (Riverside Publishing)	5 through 17	A measure of cognitive ability that is entirely nonverbal. Contains six subtests that together assess memory and reasoning abilities.
Wechsler Intelligence Scale for Children- Fourth Edition (WISC-IV) (Psychological Corporation)	6 – 16	An updated version of a widely used test. It provides four index scores indicating a child’s abilities to reason with verbal and nonverbal information.
Wechsler Preschool and Primary Scale of Intelligence-III (WPPSI) (Psychological Corporation)	2 – 7	This is a downward extension of the WISC-IV. It measures verbal comprehension, perceptual organization, and processing speed.
Wechsler Adult Intelligence Scale III (Psychological Corporation)	16 - adult	This original Wechsler Scale designed for use with adults provides measures of verbal and nonverbal skills, working memory, and processing speed.
Woodcock-Johnson III Tests of Cognitive Abilities (Riverside Publishing)	2 – adult	Assesses verbal ability, thinking ability, and cognitive efficiency (information processing); consists of a standard battery and extended battery of 10 subtests each.

Academic Assessments

Academic (or achievement) tests assess how much material the student has mastered. Specific academic skills that have been mastered or are deficient may be identified using this type of evaluation.

Name of Instrument	Ages Covered	Brief Description
Brigance Comprehensive Inventory of Basic Skills-Revised (Curriculum Associates)	Grades pre-K to 9	Assesses key academic skill areas.
Kaufman Test of Educational Achievement (KTEA) (American Guidance Service)	Grades 1 - 12	Assesses academic achievement in reading, math and spelling.
Mullen Scales of Early Learning (American Guidance Service)	Birth to 5	Measures early development, which includes scales of gross motor, visual perception, fine-motor, expressive language and receptive language.
Peabody Individual Achievement Test-Revised (PIAT-R) (American Guidance Service)	Grades K - 12	Screens broad areas of achievement such as general information, reading recognition, reading comprehension, math, spelling, and written expression.
Test of Written Language 3 rd Edition (TOWL-3) (Pro-Ed)	Grades 3 - 12	Yields composite scores for overall writing, contrived writing and spontaneous writing.
Wide Range Achievement Test- 3 rd Ed. (Wide Range Inc.)	Grades K - 12	Focuses on coding skills of reading— recognizing and naming letters, pronouncing words, spelling, arithmetic, oral and written language.
Woodcock-Johnson III-Tests of Achievement (Riverside Publishing)	Grades K – adult	Includes a standard and extended battery of tests that assess all academic areas, including oral language.

Speech and Language Assessments

Name of Instrument	Ages Covered	Brief Description
Assessment of Basic Language and Learning Skills (ABLLS) (Behavior Analysts, Inc.)	Preschool level	Criterion-referenced skills assessment used to identify where to begin language intervention and potential objectives for an IEP. Assesses a wide range of language skills, including motivation to respond.
Clinical Evaluation of Language Fundamentals Preschool-2 (CELF Preschool-2) (The Psychological Corporation)	3 - 6	Norm-referenced instrument that assesses language skills, including preliteracy and phonological awareness subtests.
Clinical Evaluation of Language Fundamentals-4 (CELF-4) (The Psychological Corporation)	5 - 21	Norm-referenced comprehensive assessment that includes academic and social language learning.
Communication and Symbolic Behavior Scales Developmental Profile (Paul H. Brookes)	6 months - 6 years	Standardized assessment that provides early and accurate identification of communication and social behavior.
Comprehensive Assessment of Spoken Language (CASL) (American Guidance Service)	3 - 21	Standardized assessment of oral language with 15 stand-alone subtests.
Diagnostic Evaluation of Language Variation (DELV) (The Psychological Corporation)	3 - 21	Criterion-referenced instrument that distinguishes children who are developing speech and language skills normally from those who are not.
Functional Communication Profile-R (LinguiSystems)	4 - 9	Criterion-referenced instrument that allows for assessment of 11 major skill categories of communication and related aspects.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Name of Instrument	Ages Covered	Brief Description
The Language Processing Test-Revised (Pro-Ed)	5 - 11	Standardized assessment of the ability to process, organize, and attach meaning to auditory information.
The Listening Test (LinguiSystems)	6 - 11	Standardized measure that assesses a student's ability to attend, process, and respond to auditory information.
Preschool Language Assessment Instrument-2 (American Guidance Service)	3 - 5	Norm-referenced instrument that allows for assessment of cognitive, linguistic, and pragmatic skills necessary to understand and participate in classroom discourse as well as the child's ability to use concepts, vocabulary, and language to follow directions, think, and solve problems.
Preschool Language Scale-4 (The Psychological Corporation)	Birth through 6	Norm-referenced instrument that allows for assessment of a child's language skills, including items targeting attention, play, gesture, social communication, and integrative language skills.
Test of Auditory Reasoning and Processing Skills (Psychological and Educational Publications)	5 - 14	Standardized measure that assesses how children understand, interpret (process), draw conclusions, and make inferences from auditorially presented stimuli.
Test of Problem Solving-R (LinguiSystems)	6 - 11	Standardized assessment that measures strengths and weaknesses in several problem-solving areas.
Test of Problem Solving-Adolescent (LinguiSystems)	12 - 17	Standardized assessment that analyzes the student's ability to use language to think.
Test of Pragmatic Language (Pro-Ed)	5 - 13	Norm-referenced instrument that evaluates social language skills in six core components of pragmatic language.

Adaptive Behavior Assessments

Name of Instrument	Ages Covered	Brief Description
AAMR Adaptive Behavior Scales-School (ABS-S:2) (AAMR)	3 through 18	Quick-to-administer measure of adaptive behavior. Useful in identifying MR and behaviors associated with autism.
Adaptive Behavior Assessment System-2nd Edition (The Psychological Corporation)	Birth through 89	A measure of adaptive behaviors that can be used to develop treatment plans and set goals. Can also be linked to Wechsler scales in order to see relationship between intelligence and behavioral functioning.
Scales of Independent Behavior-Revised (SIB-R) (Riverside Publishing)	Infancy through 80+	A comprehensive norm-referenced assessment of adaptive and maladaptive behavior. Includes a recommendation form used to plan and track a person's supports, needs, and goals.
Vineland Adaptive Behavior Scales (VABS) (American Guidance Service)	Birth through 18 & low-functioning adults	Assessment through a semi-structured interview and classroom questionnaire of the following behavior domains: communication, daily living skills, socialization, and motor skills. An optional measure assesses maladaptive behaviors.

Functional Behavioral Assessment

A functional behavioral assessment attempts to identify the function of challenging behaviors in order to replace maladaptive behaviors with more adaptive efforts to serve the same function. A functional behavioral analysis leads to the development of a positive support plan to teach more adaptive communication and behavior.

Name of Instrument	Ages Covered	Brief Description
Functional Assessment and Program Development for Problem Behavior: A Practical Handbook, 2nd Edition (Wadsworth)	All ages	Outlines best-practice methods in conducting a functional behavioral assessment. Provides information on how to develop an effective behavior intervention plan.

Social Skills Assessments

Social skills are assessed by autism-specific measures, in many aspects of speech and language assessment and the assessment of adaptive skills. Recently there have been efforts to develop rating scales specific to social skills. Two of the most widely used are listed below.

Name of Instrument	Ages Covered	Brief Description
Social Skills Rating System (SSRS) (American Guidance Service)	3 – 18	Rating scale that measures an individual’s demonstration of social skills falling into subcategories (cooperation, empathy, assertion, self-control and responsibility). It suggests interventions for specific skill deficits.
Social Responsiveness Scale (Western Psychological Services)	4 – 18	Parent and teacher rating scale that assesses social impairments, including social reciprocity, pragmatics, and social information processing.

Vocational Assessments

As students with ASD transition into middle school, planning should begin for careers, jobs, or education beyond high school. While measures of adaptive behavior and social skills can provide data about where the student will function best and what level of support will be necessary after graduation, specific vocational measures may be used to provide further information.

Name of Instrument	Ages/Grades Covered	Brief Description
Brigance ® Diagnostic Employability Skills Inventory (Curriculum Associates, Inc.)	High school through adult	Comprised of six subtests measuring career-related concepts and skills. Students must be able to read and comprehend high-school level material.
Occupational Aptitude Survey and Interest Schedule- Third Edition (OASIS-3) (Pro-Ed)	Grade 8 through adult	Consists of two tests that measure six aptitude factors related to necessary job skills and 12 interest factors, such as Artistic, Humanitarian, and Selling.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Name of Instrument	Ages/Grades Covered	Brief Description
Reading-Free Vocational Interest Inventory-2 (Harcourt Psychological Corporation)	13 years and older	This nonverbal test contains pictures of job tasks related to the following interest areas: Automotive, Building Trades, Clerical, Animal Care, Food Service, Patient Care, Horticulture, Housekeeping, Personal Service, Laundry Service and Materials Handling.
Transition to Work Inventory (Harcourt Psychological Corporation)	Appropriate for all individuals with severe mental disabilities entering the workforce	This two-part inventory compares specific job demands with the worker's capabilities. This includes jobs that provide moderate to high levels of supervision are included such as Food Service, Building Maintenance, Housekeeping, Solid Waste Processing, Recycling, Production Line, Assembly Activities, Delivery, Office Support, and Auto Service.
Work Adjustment Inventory (WAI) (Pro-Ed)	12 – 22	This self-report format contains six scales measuring temperament traits: Activity, Empathy, Social Ability, Assertiveness, Adaptability, and Emotionality.

CHAPTER III

Characteristics of Effective Programs

Planning effective programs for children with ASD is both challenging and rewarding due to the variety of student characteristics and needs demonstrated by this population. Although the research base around effective practice for children with ASD is still growing, there is general consensus on the components of effective programs:

- ✧ Earliest Intervention
- ✧ Family Involvement & Cooperative Planning
- ✧ Individualized & Intensive Programming
- ✧ Comprehensive Curriculum
- ✧ Systematic Instruction & Ongoing Objective Assessment
- ✧ Structured/Predictable Learning Environment
- ✧ Specifically Trained Personnel
- ✧ Peer Relationships

This chapter provides a framework for developing, designing, and monitoring the effectiveness of programs for children with ASD.

Earliest Intervention

The National Research Council (2001) strongly recommends that a child enter into an intervention program as soon as an ASD is seriously considered. Thus, educational services, based on an IEP/IFSP (individualized family service plan) and systematic intervention plans, should begin as soon as the child is determined eligible for services. In Connecticut, services are available via the state's Birth to Three Systems for infants and toddlers and their families, and beginning at age 3 from the child's school district. Support for the earliest intervention is based upon the fact that better results are achieved when services start early.

Benefits of Early Intervention

- ✧ The opportunity for family members and educators to intervene prior to the development of behaviors that interfere with functioning.
- ✧ The opportunity for family members and educators to begin teaching functional communication strategies prior to the development of idiosyncratic communicative patterns and/or aberrant behaviors.
- ✧ The opportunity for educators to assist family members in the development of effective teaching strategies for use in the home and community where the need is often greatest, and the deficits are most acutely felt.
- ✧ The opportunity for family members and teachers, working together, to support the healthy adjustment of the family with respect to the child's autistic spectrum disorder, and to facilitate the formation and maintenance of social networks in the community.

(Report of the Connecticut Task Force on Issues for the Education of Children with Autism, 1998)

Family Involvement and Cooperative Planning

Effective programming for children with ASD requires a concerted team approach between agency/school district personnel and families. Federal and state laws require that parents and specific school personnel participate in the development of an IEP at a PPT meeting. People who have significant interactions with the child should work together throughout the year outside of the PPT process to implement, monitor, and evaluate the program and student progress at informal team meetings. The information gathered from this team will assist with future planning and implementation of the IEP.

In addition, according to 34 C.F.R. § 300.24, "... supportive services are required to assist a child with a disability to benefit from special education, and these supportive services include parent training." Thus, to the extent that parent training is appropriate to assist a child from benefiting from special education, it should be included in the IEP as a related service.

Consistency across members of both informal and formal teams is essential because, without consistency, children may fail to generalize and maintain gains. The child's family members are critical and must serve as core team members because they are able to provide unique insights about their child and can help support and maintain interventions beyond the school setting. In addition to issues of generalization, family members have opportunities to teach skills in a wide variety of non-school contexts (e.g., home, extracurricular activities, play dates, and other community settings/events).

Family Participation

Families are most impacted on a day-to-day level by the child's autism and know their child best. They bring to the team knowledge of their child and family that spans many years and environments. It is important that the program is respectful of the family's culture, values, and parenting styles. Further, throughout the educational process, parents should receive information regarding the types and range of service options available, including the advantages and disadvantages of each. When necessary, staff must be available to help parents interpret the scientific evidence about the effectiveness of a given intervention. In addition, families should have the opportunity to be involved in choosing outcomes that are relevant to the family and that reflect their values and culture. Finally, families must be continually apprised of their child's progress and program evaluation activities through regular and ongoing home-school communication.

Families' participation in home and school programs may vary depending on additional demands of work and siblings and extended family and community commitments. While some families are involved in all levels of intervention, including program oversight and direct therapy, to others this level of involvement may be prohibitive. Consequently, programs for children with ASD should take into consideration conditions impacting family involvement.

Parent Training

When families choose to implement interventions at home, they may seek the support of trained professionals. This is an effective means of helping family members embed new skills into routines that foster the child's independence at home and in the community. Family members also need to know how to carry over behavioral support plans for challenging behaviors that interfere with the child's functioning.

When helping families incorporate intervention strategies into family routines, the types of skills that are most conducive to fostering child independence include:

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ✧ Daily living skills (e.g., dressing, cooking, public transportation)
- ✧ Safety skills, such as teaching a child to stop when asked, walk with you without holding your hand, or how to recognize an emergency
- ✧ Simple one-step directions such as come here, sit down, stand up, and wait
- ✧ Functional communication skills such as requesting, protesting, and gaining attention
- ✧ Independent leisure skills

Parent training in these areas can reduce family stress and increase opportunities to become engaged in the community. All family members, including siblings and grandparents, can benefit from this type of support.

Team Approach

Strong team relationships are based on trust, cooperation, and open communication and positively impact outcomes for the child. A key to developing successful IEPs for children with ASD is the development of collaborative team relationships among school personnel and families. Teams that function collaboratively and meet regularly provide a mechanism for proactively developing, implementing, and monitoring the effectiveness of programs and interventions throughout the year. Teams should meet informally to analyze regularly gathered data and make timely adjustments in case of ineffective programming.

The following variables are key to team effectiveness:

- ✧ Shared team goal/vision;
- ✧ Team member roles are established and understood;
- ✧ Team members communicate effectively;
- ✧ Team members feel a sense of cohesion, unification, support and respect;
- ✧ Team logistics and procedures are in place; and
- ✧ Team outcomes are established through strategic decision making and monitoring.

(Fleming & Monda-Amaya, 2001)

The very nature of autism requires that to be most effective schools and parents work together toward a comprehensive, quality program that includes plans for generalization. It is essential to provide adequate meeting time for staff to be available to discuss all facets of the child's program in an effort to maintain consistency across school/home/community settings. Strategic decision-making and problem-solving processes should be used to guide decisions made by teams in designing, monitoring and adapting student programming.

The intervention team membership and team roles may vary. However, families and direct care providers should be consistent members. In addition the student should be an active member of the team whenever appropriate. Other team members may include, but are not limited to, the following:

- ✧ Administrators
- ✧ Teachers (general and special education)
- ✧ Student support service professionals (related services personnel)
- ✧ Other school staff (i.e. bus drivers, secretary, lunchroom personnel)
- ✧ School nurse
- ✧ Paraprofessionals
- ✧ Consultants

Appendix III-B is a list of websites that provide information related to autistic spectrum disorders. Appendix III-C includes a list of Connecticut resources.

Individualized and Intensive Programming

Children with autism represent a heterogeneous group requiring individualized and highly unique programs. Some approaches have been found to be more beneficial than others. According to Dunlap (1999), a critical key to success is to match specific practices, supports, and services with each student's unique profile and the individual family's characteristics. That is, "Educational personnel are required, through the Individuals with Disabilities Education Act (IDEA) Amendments of 1997, to provide a continuum of individualized supports, services, and placements to students, ranging from inclusion in general education with varying levels of supports to extremely specific services and instruction in specialized settings" (Iovannone, Dunlap, Huber, & Kincaid, 2003, p. 153).

Recent state and federal initiatives require planning and placement teams to consider general education classroom placement for children with disabilities. Many children with autism are successfully included in general education classrooms and are learning with typical peers (Wagner, 1998). Particularly, peers are often able to successfully model typical behavior in addition to assisting with generalization of skills taught.

The IDEA (20 U.S.C. § 1412 (a) (5) (A) of IDEA '97) requires school personnel to consider the LRE for children with disabilities. This means that students, to the maximum extent appropriate, be educated with their nondisabled peers. Special classes, separate schooling, or other removal of children with disabilities from the general education environment occurs only when the nature and severity of the disability is such that education in general education classes with the use of supplementary aids and services cannot be achieved satisfactorily.

However, for some students, the general education classroom is the least restrictive environment, while for others it may not afford an appropriate education. Thus, LRE is not always the general education classroom. Considerations for determining the least restrictive environment for an individual child, based on his or her unique characteristics, learning style, and needs, should include:

1. determining appropriate supports, accommodations and modifications to support the child's access to the general education curriculum;
2. collaborating with families to establish shared preferences for goals, methods, and placement settings (Iovannone et al., 2003);
3. embedding the child's special interest and preferences in the program methods (Hurth et al., 1999, cited in Iovannone et al., 2003), and
4. clearly identifying the child's strengths and weaknesses (student profile) to determine intensity of instructional level (National Research Council, 2001, cited in Iovannone et al., 2003).

In brief, placement decisions should not be based on the student's disability, but on where the child's needs may be appropriately addressed. That is, having a diagnosis of autism should not automatically place the student in the school's or district's "autism class or program." No one program, support, or service is likely to meet the needs of all children identified with autism. Schools should

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

provide flexible placement and support options to meet student's individual goals (Dunlap & Fox, 2002), including consideration of assistive technology (AT).

It is important to note that inclusion, mainstreaming, and LRE are not synonymous. *Mainstreaming*, a practice that originated in the 1970s, refers to students spending portions of their school day with typical peers. This is generally based on students having achieved the expected behavior and/or academic goals necessary to participate. *Inclusion* refers to a belief system that drives educational practice and is not merely an issue of a student's educational placement (McGregor & Vogelsberg, 1998). More recent thinking advocates an inclusive philosophy that entails the student having a sense of belonging to the education community versus inclusion being a place or program (i.e., the inclusion room).

The bottom line throughout the mainstreaming movement has been that the student will adapt and be ready to participate in the general education classroom, and that the general education classroom will not change. In contrast to this perspective, the current inclusion movement assumes that major changes will occur in the general education classroom, ensuring that students with disabilities will 'fit into' these classes. Thus, general education classroom curriculum, instructional practices, organization, and so forth are changed to better meet the needs of the students, rather than expecting students to adapt to the classroom. (McLeskey & Waldron, 2000, p. 14)

Successful inclusion in general education settings for children with autism requires careful planning and implementation of program components to address students' social and academic needs (Kamps, Barbetta, Leonard, & Delquardi, 1994). Responsible inclusive practice refers to ensuring and maximizing student success in general education classrooms by providing teachers support to meet students' needs. Such support may involve training, materials and time to collaborate with colleagues. Responsible inclusive practice calls for educators and parents to reflect on the following questions:

- ✧ What are the educational benefits to the student in the general education classroom, with supplementary aids and services, compared with the educational benefits of a special education classroom? [or other placement options along the continuum]
- ✧ What will be the nonacademic or personal benefits to the student in interactions with nondisabled peers?
- ✧ What will be the effect on the teacher and other students in the general education classroom?
- ✧ How will the team define and measure the success of inclusion?

(National Research Council, 2001, p. 179)

Responsible inclusive practice does not mean providing one-to-one instruction in the back of a general education classroom without meaningful interaction with nondisabled peers. This is often referred to as a *class-within-a-class*. Instead, students need opportunities for interaction with nondisabled peers through both informal and planned activities. Children with autism should receive instruction and support to maximize successful interaction with nondisabled peers (New York State Education Department, Office of Vocational and Educational Services for Individuals with Disabilities, 2001).

Intensive Programming

Intensity is another individualized component of educational programming that must be considered on many levels, including duration of education (e.g., the number of hours per day or week that services are provided; the number of weeks of educational intervention per year); the number and/or type of environments in which the teaching occurs (e.g., classroom, general school environment, home, community); and the educational validity of the interventions provided (Report of the Connecticut Task Force on Issues for the Education of children with Autism, 1998).

Considerable debate has surrounded the number of hours per day considered appropriate for educating children with ASD in the public schools. Although there is great variability in the numbers of hours per week (20-45 hours) across comprehensive model programs for children with ASD, it is the conclusion of the National Research Council Report for Educating Children with Autism (2001) that active engagement in intensive instructional programming for at least 25 hours per week [full school days, five days a week] is critical for the majority of children with ASD. This includes a combination of specialized instruction, related services and general education as appropriate. Regardless of the number of hours of formal school programming, it is suggested that families should supplement programming in the home and the community by incorporating intervention strategies into the family routines.

In determining the number of hours of formal instruction the student should receive in the school setting, the PPT should take into account the following:

- ✧ the degree and severity of the child's needs
- ✧ the child's ability to engage in the natural environment with little or no support
- ✧ the child's developmental level
- ✧ the child's related service needs
- ✧ the child's ability to learn through imitation and observation
- ✧ the child's ability to generalize skills in multiple settings
- ✧ the child's rate of progress toward goals

By the very nature of their disorder, most children with ASD, particularly young children, spend little of their own time engaged in purposeful, appropriate, goal-directed behavior. Instead, they tend to be either disconnected from their surroundings or fixated on specific aspects of objects or people. Since most children learn from interacting with their environment through observation and imitation, these opportunities may be lost to children with ASD (Connecticut Birth to Three System, 2002).

Engagement, as a measure of intensity, refers to the amount of time a child is attending to and actively interacting with others. A key aspect of individualization for students with ASD involves approaches for supporting high rates of engagement. Engaged time can be provided at different levels of intensity and in a variety of settings using a range of strategies, including one-to-one instruction, independent work time, small-group instruction, and instruction in the general education environment. Thus, across all of these settings, the goal of intervention for the child with ASD is to increase the amount of time he or she is engaged throughout the day in order to achieve outcomes identified on the IEP. The most intensive intervention program is of limited benefit if it does not result in active engagement when the child is not receiving services (Connecticut Birth to Three System, 2002).

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Consistent with guidance provided by the Connecticut State Department of Education's Bureau of Special Education, the PPT must consider extended school year (ESY) for all students with disabilities, including students with ASD. The state has provided guidelines based on case law decisions for determining ESY services (see Appendix III-A). Students with autism who are high functioning may require no ESY services or a different type of ESY service than students who are very challenged by their disability and/or who are more cognitively impaired.

A final note: Full-day programs occurring across a full year do not necessarily ensure effective educational services for students with autism. That is, merely increasing the number of hours served does not ensure a quality program. In order for instruction to be effective, educators must understand the learning styles and unique needs of students with autism. Further, teaching must consist of high-quality instructional interactions, individualized to meet the child's learning style and needs.

Comprehensive Curriculum

The suggested curriculum for children with ASD should focus on:

- ✧ maximizing success in school settings
- ✧ developing independent functioning in home, vocational, and community settings
- ✧ increasing the ability to make informed choices, becoming their own advocates, and controlling their environment in an effort to improve overall quality of life.

It is important for families and professionals to remember that children with ASD display extremely wide and unique patterns of development and learning styles. Therefore, the curriculum must be individualized and adapted to each child, rather than driven by a lock-step scope and sequence of skills that assumes a typical sequence of learning. As such, "...no single curriculum has been shown universally effective" (Olley, 1999, p. 604).

All children, including those with ASD, must have access to the Connecticut Preschool & K-12 Curricular Frameworks (1999) and the school district's core curriculum. However, for children on the spectrum, curricular accommodations and modifications may be necessary to help ensure access. Thus, additional areas may need to be addressed due to challenges arising from the core deficits of ASD. These include social-emotional reciprocity, communication skills, attending skills, cognitive processing, observational learning and severe problem behaviors. Educators and families need to consider balancing functional skill development (e.g., tying shoes or using the bathroom) with the general education curricular components (e.g., math, science, etc.).

As discussed in Chapter II, the individualized curriculum should be designed and driven by formal and informal assessments that identify student strengths, preferences, motivational characteristics, skill deficits, and behavior issues. Results from ongoing assessments provide a baseline from which progress can be measured and future curricular goals determined.

Children with ASD are required to participate in all state- and district-level assessments. The PPT must consider whether the child takes the Connecticut Mastery Test (CMT), the CT Academic Performance Test (CAPT), with or without accommodations or the CMT/CAPT Skills Checklist.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

The following are considerations for developing or selecting a comprehensive curriculum:

1. Use a developmental sequence to teach skills in an effort to improve student skill acquisition and generalization rates (Dyer & Peck, 1987; Lifter, Sulzer-Azaroff, Anderson, & Cowdery, 1993).
2. Incorporate student's areas of strength to compensate for areas of difficulty (National Research Council, 2001).
3. Make curricular selections based on an assessment of the individual child and family preferences.
4. Teach specific functional skills derived from a task analysis of current and future LRE demands (Brown, Branston, Hamre-Nietupki, Pumpian, Certo, & Gruenwald, 1979).
5. Use a structured approach to determine the communicative function of problem behaviors and teach alternative socially desirable communicative responses.
6. Directly address core deficits such as selective attention, spontaneous communicative intent, and abstract reasoning (Prizant & Rubin, 1999).
7. Emphasize approaches that are backed by research (Collaborative Work Group, 1997).
8. Base content and sequence on individual progress, with adjustments made according to ongoing evaluation (Olley, 1999).

Specialized curriculum areas, based on the child's developmental level, should also emphasize the basic triad of central ASD deficits in communication, social reciprocity and interaction, and repetitive patterns of behaviors. Target skills included in each of these areas are described below. It should be noted that while the curricular targets in each of the areas are described separately, they are often addressed simultaneously when planning for and working with a child

Areas of Curricular Emphasis

For students with ASD, the curriculum focuses on the major areas of deficits, including communication, social skills and repetitive, stereotypical behavior patterns. In addition, the curriculum may also target specific areas in cognitive, motor, academics, sensory motor, and daily living skills.

Communication

Individuals with ASD have needs in all areas of communication, including pragmatics, semantics, syntax, and phonology. In the area of *pragmatics*, it is critical to focus on skills that provide functional equivalence for problem behavior. For example, teaching students to request and protest with appropriate conventional communicative forms can help them get their needs met without resorting to problem behavior. In the area of *semantics* students are taught receptive and expressive vocabulary, so they can comprehend language and use conventional symbols (words/pictures) to talk about persons, actions, places, and things. Emphasis on *syntax* involves teaching children to put words or other symbols in the appropriate order to reflect the correct meaning. Finally, teaching *phonology* involves teaching children how to form the individual sounds of words so that they are intelligible to all listeners.

It is also important to address the cognitive skills that relate to communicative development. These include foundational skills such as cause-effect, imitation of verbal and nonverbal behavior, object permanence, and matching. In addition, teaching children to attend to relevant cues in all communicative interactions is critical. This includes attention to communicative partners, objects, and actions. Finally, because some children with ASD are unable to fully develop the use of speech as their

primary mode of communication, augmentative or alternative systems must be considered, including AT devices and equipment, picture communication systems, visual supports, and/or sign language.

Social Reciprocity and Interaction

ASD affect essential human behaviors such as social interaction and the establishment of relationships. Consequently, an emphasis on social skills with peers and adults is essential in all curricula for students with ASD. In building social relationships target areas include joint attention, initiating and responding, turn taking, sharing, and conversational skills. For younger children skills such as suggesting play ideas, transitioning between play activities, and initiation of play activities are targeted. For older students recreation/leisure skills involving other people should be a main focus of instruction. Finally, the ability to express needs and use appropriate communication with peers and adults in realistic situations is critical to the overall goal of enhancing the quality of life for individuals with ASD.

Repetitive Behavior Patterns

Many behaviors displayed by typically developing children are also observed in children with ASD. However, they often differ in intensity, frequency, duration, and persistence. This is true for repetitive stereotyped behaviors that provide kinesthetic input such as body rocking, posturing, and finger flicking. Also included are movements that provide visual input such as gazing at fingers, patterns, or printed matter, and auditory input such as repetitive vocalizations, words, or statements. Many students with autism have narrow food preferences or insist on eating the same foods at the same time, sitting at precisely the same place at the table every day. Similarly, some children persevere on the same conversational topics even when nobody appears to be listening or provide feedback.

Such repetitive, stereotyped behaviors may be stigmatizing in addition to competing with the development of new skills. Further, if left untreated, they persist, usually becoming the dominant behavior. Thus, curriculum that emphasizes treatment of these behaviors is critical.

When a student with ASD is engaged in appropriate activities, stereotyped behavior becomes less evident. Thus, curricula designed to teach new skills is recommended (Luce & Dyer, 1996). New skills can involve teaching the child to play with toys. This works especially well if the play activity provides the child with the same type of stimulation that he receives through stereotypic behavior. Sometimes children engage in stereotyped behavior when confronted with a difficult situation. In these situations functional communication training designed to teaching children to ask for help can be useful (Durand & Carr, 1987).

It is important to remember that some repetitive, stereotyped behaviors appear to serve the function of self-regulation and, therefore, should not automatically be discouraged. These behaviors can occur under various conditions (e.g., bored, frustrated, anxious, happy, nervous). Therefore, it is important to assess the function of these behaviors, including level of interference and extent/degree to which a behavior is stigmatizing, in order to determine if interventions are necessary.

Other Curricular Targets

Children with ASD also display deficits in cognitive, motor, academics, sensory motor, and daily living skills. Curricular targets in these areas may include:

- ✧ Academic skills, including mathematics, reading and writing
- ✧ Daily living skills
- ✧ Gross-, fine-, and sensory motor skills
- ✧ Vocational skills that are based on the students' strengths and preferences
- ✧ Transition skills from activity to activity
- ✧ Community participation skills to the maximal level possible
- ✧ Self-regulation strategies
- ✧ Self-advocacy skills
- ✧ Higher-order cognitive processes (e.g., symbolic play, imagination, making inferences and predictions)
- ✧ Skills for tolerating and dealing with unexpected changes and emergencies

Reducing Challenging Behavior

A comprehensive curriculum designed to develop positive, prosocial behavior is pivotal in the treatment of problem behaviors such as self-injury, aggression, property destruction, and tantrums. According to the National Research Council (2001), "... the most effective form of prevention of problem behaviors is the provision and implementation of an appropriate individualized education plan (IEP) based on proven interventions that have some scientific evidence supporting their value" (p. 118).

Functional Behavioral Assessment

Functional behavioral assessment is a scientifically supported strategy. As such it is required in certain cases of discipline under IDEA, but may also be beneficial even when not required. With this approach, the function(s) of a problem behavior are identified. Using hypotheses about antecedents and consequences likely to trigger and sustain problem behaviors are identified. For example, a given problem behavior (e.g., yelling out) may serve to help students avoid difficult tasks, gain attention, acquire preferred items, or meet sensory needs.

After variables are identified, intervention strategies can be developed that are linked to the contributing factors. These strategies are incorporated into a written behavior plan that becomes part of the child's IEP. This plan is developed for the individual child, and the child's behavior is monitored to evaluate the effectiveness of the plan. The procedures can involve the following:

Modifying antecedent/setting events

This may include:

- ✧ reducing environmental distractions
- ✧ providing engaging materials
- ✧ ensuring a good night's sleep
- ✧ providing visual supports
- ✧ providing predictable routines
- ✧ providing a quick or slower instructional pace
- ✧ providing choices and preferences
- ✧ reducing boring, repetitious tasks with task variation
- ✧ engaging in physical exercise

Teaching alternative skills

This may include:

- ✧ functional communication
- ✧ incompatible, alternative behaviors
- ✧ academic skills
- ✧ self-regulation skills
- ✧ independent leisure skills
- ✧ social skills
- ✧ communicating information about change to the child

Delivering consequences for problem behavior

This may include:

- ✧ ignoring and redirecting the behavior
- ✧ removing the reinforcing consequences of a behavior
- ✧ providing verbal feedback
- ✧ removing the opportunity to receive reinforcement
- ✧ engaging in positive practice of alternative skills

Providing crisis management to protect people and property from harm

- ✧ Should a situation occur whereby a student is endangering the physical well-being of him/herself or others, intervention must occur immediately. To ensure such intervention will occur appropriately, programs for children with ASD must develop crisis intervention guidelines and ensure that staff has appropriate training and supervision, and that parents are informed. If, over time, the behavior is more frequently occurring, a more comprehensive, individual behavior plan must be developed.

While it is important to teach alternative skills to meet immediate needs, long-term prevention strategies are also important. These include teaching academic skills to reduce avoidance of school, connecting with community supports, building social relationships, providing a comprehensive communication program so students can express their needs in many situations, and teaching alternative, appropriate leisure skills so students have something to do with their down time.

Finally, efforts should be made to address potential behavior problems in a preventive manner by emphasizing social communication skills that allow students more self-control and by offering supports that help and guide students to stay calm and appropriately handle emotional upheaval. To that end, instructors should learn to recognize signs of a student's impending emotional responses and offer various supports (e.g., offering choices, adjusting their demeanor and proximity, reading and responding to intent, offering sensory diets).

Systematic Instruction and Ongoing Objective Assessment

Instructional practices for children with ASD can be used to decrease problem behaviors such as self-injury, aggression, self-stimulation, and tantrums, as well as increase skill acquisition across curricular areas (i.e., cognitive, communication, academic, social, motor, and community access skills). To be effective, these practices must occur in the context of a systematic and carefully planned framework (National Research Council, 2001; Hurth et al., 1999; Iovannone et al., 2003). This framework includes the following the following activities:

Framework for On-going Assessment

1. Conduct assessments to identify students' strengths, area of needs, and previously acquired skills.

These assessments:

- ✧ Measure clearly defined, observable skills/behaviors;
- ✧ Are specific to the individual and the context in which the skill/behavior occurs; and
- ✧ Provide information that assists in planning, intervention, and evaluation.

2. Use assessment results to develop goals and objectives.

These include:

- ✧ The context within which the skill/behavior occurs; and
- ✧ The criteria for mastery (expressed in dimensions such as frequency, duration, topography, and accuracy).

3. Collect baseline measures of desired goals and objectives.

4. Implement intervention procedures (see Chapter IV).

5. Evaluate and carefully document the effectiveness of each educational practice.

This:

- ✧ requires regular, ongoing data collection;
- ✧ uses objective, valid, and reliable measures;
- ✧ determines whether skill/behavior is changing in the desired direction;
- ✧ regularly compares data against baseline to permit assessment of progress;
- ✧ tracks unexpected outcomes of intervention;
- ✧ determines whether adjustments of the intervention are necessary if skill/behavior is not progressing. Questions to ask when making program revision include:

Is the objective too difficult?

Is the program being implemented as designed?

Are components of the procedures, (e.g., instructions, materials, reinforcers) appropriate?

6. Program for generalization across home, community and classroom by:

- ✧ *Teaching across people*: This includes multiple teachers, family members, and community members.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ✧ *Teaching across settings:* It is optimal to conduct teaching in a multitude of settings, where the skills are to be eventually used.
- ✧ *Teaching across materials:* Because of their selective attention, students with ASD may attend to irrelevant aspects of teaching materials. Therefore, vary shape, size, form, and function of instructional materials.
- ✧ *Teaching across language forms:* When teaching the student to respond to language cues, make sure that all relevant forms of the cue are presented.
- ✧ *Teaching fluency:* Teach the student to make the response easily and automatically.
- ✧ *Using natural reinforcers:* Use reinforcers that are available in the natural environment.
- ✧ *Incorporating functional mediators into novel situations:* Incorporate material, language cues, and expectations that are present in the teaching situation into novel settings to enhance generalization.
- ✧ *Fading reinforcement:* Gradually increase the student's tolerance for accepting natural access to reinforcers.
- ✧ *Using a continuum of intervention as the child progresses:* Begin programming in predictable and structured environments and then move into increasingly more complex environments.

The above framework is customarily used with evidenced-based practices. However, it is important not to discard novel procedures that appear promising just because they have not been empirically validated yet. Due to the diversity of practices, Simpson (2004) suggests that teams incorporate a variety of evidenced-based practices into individualized programs, while at the same time weaving promising experimental approaches into the fabric of these programs using the above framework. By doing so, teams can systematically implement current best practices for children with autism in programs that are individualized, flexible, and comprehensive.

Structured Predictable Learning Environments

Establishing supportive school, classroom, and home study environments is a critical step in the delivery of an appropriate education for students with ASD (Heflin & Alberto, 2001). Due to their attention problems, children with autism often require highly supportive settings to achieve optimal levels of performance. Creating a predictable environment that supports students' identified learning needs is basic to instruction. For students with ASD, a supportive environment generally means that it is structured and predictable and that the curriculum (activities, schedule, and environment) is clear (comprehensible) to both the students and the educational personnel (Iovannone et al., 2003). Such an environment can be achieved in a variety of ways within a highly predictable and routine setting that can be made more complex as the student masters and maintains new skills (Dawson & Osterling, 1996).

Variables that can be used to provide a supportive environment for students with ASD include:

- ✧ the physical arrangement of the classroom
- ✧ the nature of the materials used
- ✧ the teaching strategies used
- ✧ the visual/organizational tools used
- ✧ the behavioral support strategies used

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ✧ time allocation and sequence of activities
- ✧ staff-to-student ratios
- ✧ staff teaming and interactive styles

These variables can promote active engagement, recognized as one of the best predictors for positive student outcomes (Heflin & Alberto, 2001). They must be continually assessed and modified to meet individual and changing student needs. This should optimally occur prior to major setting changes or when a student is exhibiting difficulty in the current setting.

Structured and predictable environments allow students to anticipate task requirements and expectations. They also foster student learning of a variety of skills across content areas in the natural environment, enhancing the likelihood of generalization. Dalrymple (1995) defined environmental supports as aspects of the environment other than interactions with people that affect the learning that takes place. These supports or strategies may include the use of labels, boundary settings, visual schedules, behaviorally based communication tools, activity-completion signals, choice boards, and waiting supports. These strategies allow students to respond more appropriately in day-to-day activities by increasing independence and by stimulating language development (Earles, Carlson, & Bock, 1998).

The arrangement of the physical space, inclusive of uncluttered and clearly defined areas of instruction, and consideration of adaptations needed for individual students who are bothered by noise, lights, movement, etc., are components of creating a highly supportive and predictable environment (Dalrymple, 1995). This may be accomplished by establishing event structures (e.g., defining each activity, using a sequence of steps), using predictable routines (marking the opening/close of activities), and designing physical space and schedules to promote transitions. Specific strategies to help children transition from one activity to another are also important, as they minimize stress and confusion and provide temporal support. Transitioning strategies can also include providing visual aids/depictions of daily schedules, use of transitional objects, providing ample warning prior to a transition, and guiding a child through the transition (Dawson & Osterling, 1996).

Visual and organizational/concrete supports are essential components of a highly predictable and supportive environment. Children with ASD often have difficulty processing auditory information and may have a strength in the area of visual-spatial processing. Indeed, the use of visual supports has been cited as best practice for children with ASD (Prizant & Rubin 1999). Visual systems facilitate transitions and provide temporal relations, behavioral supports, choice-making opportunities, and organization/definition to settings (Iovannone et al., 2003). Visual systems also support a child's sense of organization, activity structure and time, language comprehension and expressive communications, and the development of emotional regulatory strategies (Prizant, Wetherby, Rubin & Laurent, 2003), and also facilitate a student's ability to predict events and activities, anticipate change, and understand expectations.

Dalrymple (1995) organizes visually oriented supports into four categories: *temporal* (organizing sequences of time inclusive of schedules, waiting supports, completion guidelines and strategies to accept change); *procedural* (organizing steps of activities, to signify possession); *spatial* (signifying location, personal space); and *assertion* (making choices, self-management).

Time allocation and sequencing of particular tasks and activities during the day should be considered when creating predictable environments. Planning a variety of activities over the course of the day generally helps to reduce disruptive behaviors. It may also be necessary to intersperse sedentary and movement activities and schedule sensory activities throughout the day to help children stay focused and engaged (Prizant & Rubin, 1999). In doing so, the environment should be evaluated to accommodate individual students' sensory preferences and needs as a means of making it more conducive to engagement (Heflin & Alberto, 2001).

Optimal staff-to-student ratios (i.e., 1:1, 1:2, 1:3, or whole group) are also an integral component of intensive teaching. These ratios can be systematically and intentionally adjusted across time in order to prepare children to function more independently in future settings (National Research Council, 2001). Intensive teaching incorporates the concepts of systematic instruction and scaffolding, which means parents and teachers naturally help to structure children's environments in order to maximize their attention to relevant information for learning and success (Dawson & Osterling, 1996). Some models teach in 1:1 settings before fading the support and systematically generalizing skills to more complex environments (Dawson & Osterling, 1996). Other models, like SCERTS, prioritize teaching children in a variety of settings from the outset, since generalization of skills is most successful when children learn skills in settings that occur naturally as part of their daily routine (Prizant et al., 2003).

Staff teaming and interactive style are also important. Effective programs for children with ASD also incorporate well-designed small-group instruction. This requires well-trained teaching teams that use a teaming model that clarifies the role of lead teacher and support personnel (paraprofessionals') so students always have a lead teacher to attend to while also having support staff to prompt them and provide guidance and assistance during behavioral or task difficulties. This design also supports children's optimal active participation in group activities (Wood, Davis, Swindle, & Quirk, 1996). Small-group instruction should also incorporate motivating and preferred materials, capitalizing on children's interests (Iovannone et al., 2003). Utilizing thematic units that provide recurring ideas is one way to tie together and help generalize skills to these types of group activities (Earles et al., 1998).

Students with ASD present unique challenges to educators trying to plan effective instructional programs. A comprehensible/structured/highly predictable and supportive environment is a core element of a comprehensive instructional program for those students with ASD.

Specifically Trained Personnel

General and special education teachers, clinical and support staff, and paraprofessional personnel must be specifically trained to understand and teach students with ASD and to implement their IEPs. In addition, teaching efforts, as measured by student behavior and outcomes, must be continuously monitored. Family members also need training so they can effectively provide consistency and generalization of learned skills. While there is not a standard training protocol to prepare professionals to work with children with ASD, it is generally agreed that for intervention to be effective, the team should have a collective core of knowledge about autism. This core of working knowledge should include the following.

Knowledge of ASD, including etiology, incidence, range of symptoms and characteristics, strengths, possible medical concerns, and assessment tools.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Knowledge of early intervention, including its rationale, the importance of family involvement, and suggested treatment strategies.

Knowledge of cooperative planning and family involvement, including team roles and responsibilities, the importance of teamwork and how to plan for generalization, and regularly scheduled meetings.

Knowledge of individualized and intensive programming, including how to match educational approaches to the unique learning styles of students in the child's IEP, principles of responsible inclusive practice, the importance of ensuring high levels of engagement, and optimal treatment hours.

Knowledge of comprehensive curriculum, including emphasis on the importance of individualized curricula to improve quality of life, addressing core deficits in ASD how to provide access to Connecticut's curricular frameworks and the school district's core curriculum, and how to facilitate generalization.

Knowledge of systematic instruction and ongoing objective assessment, including how to conduct assessments, develop goals and objectives, implement and evaluate the effectiveness of intervention procedures with systematic data collection, program for generalization, and validate new procedures.

Knowledge of how to provide structured predictable learning environments, including how to use visual supports, physical arrangement of the classroom, time allocation and sequence of activities, and optimal staff-to-student ratios.

Knowledge of evidenced-based instructional strategies, including:

- (a) Strategies to teach new behaviors that fall on a continuum of child-directed activities in natural contexts to adult-directed activities in structured, distraction-free contexts (Anderson & Romanczyk, 1999), and are provided through repeated, planned teaching opportunities (National Research Council, 2001). These include pivotal response training, incidental teaching, peer-mediated strategies, and discrete trial training. Also included are strategies to decrease or alter existing behaviors such as functional analysis, differential reinforcement of other behaviors, extinction, and antecedent manipulation.
- (b) Developmental strategies such as developmental sequencing curricula, child-centered teaching, and the use of natural internal consequences.
- (c) Augmentative and alternative communication strategies, such as the Picture Exchange Communication System (PECS), sign language, and vocal output communication devices.

Knowledge of how to facilitate peer relationships, including assessment of social behavior, development of play and leisure skills, and intervention resources, such as Circle of Friends, the Lunch Bunch, Social Stories and Sixth Sense.

Knowledge of transition planning, including person-centered planning, legal requirements, practices to promote home-to-school, school-to school, and school-to-adulthood transitions.

School districts that do not have staff specifically trained in the above areas should consider bringing in outside consultants to provide that expertise or to support staff in professional development activities. It is recommended that these efforts be aimed at promoting a transfer of knowledge and skills to district staff necessary to develop, implement and evaluate specific student IEPs. This strategy over time will build capacity for district personnel to sustain high levels of shared expertise. In order to achieve competency in the above skill areas, training must move beyond initial awareness orientation and progress towards ensuring that staff members are able to demonstrate skill proficiency in addition to implementing the IEP. Staff with less experience will require support from personnel who have more experience in autism and effective practices for such students. Ongoing training and supervision should be made available to enhance the competencies of such novice teachers.

Peer Relationships

Most children with ASD do not learn interaction skills, nor do they build relationships by simply being placed in social environments. Therefore, they need to learn these skills in the same way they learn academic or self-help skills through direct instruction in social skills and how to develop and maintain peer relationships. Since “we live in a world where relationships are primary” (Wheatley, 1999), it is imperative that effective programs for students with ASD include this critical area of development as a primary focus of instruction.

Relationships

Developing social relationships is a core deficit area for children with ASD. “Peer interactions and indeed social interactions in general, are characterized by low rates of both initiation and response” (National Research Council, 2001, p. 69). Typical children acquire play skills (including peer play), language and communication, and cognitive skills through reciprocal social interactions. Children with ASD often lack these foundational skills because of their impaired ability to form social relationships. Since the ability to develop social relationships adversely impacts a child’s overall educational performance, it should be a focus of teaching children with ASD, even though it is not traditionally considered an academic area.

When developing goals for relationship building, it is important to take into consideration the child’s:

- ✧ Current ability to interact:
 - ◆ with adults, including parents, community professionals (police, emergency responders, doctors, etc.)
 - ◆ with familiar peers the student likes (including siblings)
 - ◆ with peers who like the student with ASD
 - ◆ with unfamiliar peers
 - ◆ in structured settings
 - ◆ in unstructured settings

(adapted from Myles & Adreon, 2001)

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ✧ Deficits and strengths across peers (disabled and nondisabled), adults (school and community), and family (parents and siblings)
- ✧ Age and developmentally appropriate expectations and settings
- ✧ Interests/hobbies

Within the realm of social relationships, a major concern for students with ASD is their vulnerability to bullying. According to Little (2002), 94 percent of parents of children ages 4-17 report their child has been bullied. Children with ASD are four times more likely to be bullied than students in the general population and twice as likely to be hit or kicked. Due to communication issues associated with the disorder, students on the autism spectrum may not be able to report or access help in bullying/teasing situations, making them highly desirable targets. School personnel should proactively address bullying and teasing through goal development (how to report bullying, how to recognize bullying, etc.). Often, student bullying and teasing is subtle and happens when there is little supervision (locker room, hallway, cafeteria, stairways, bathroom, etc.). Therefore, attempts should be made to supervise these areas for students with ASD. In summary, school personnel need to make every attempt to address the seriousness of bullying incidents as prescribed in Connecticut's Public Law 02-119.

Play and Leisure

Play skills are the building blocks for learning turn taking, verbal and nonverbal interaction, and recognizing social cues. Children use play to: (a) develop common interests with others, which fosters relationship building skills; (b) explore their surroundings to get information about their environment and the people around them; and (c) develop and expand upon language and communication. All of these areas are inherently difficult for children with ASD, but are critical for greater learning and independence. Play and leisure time, therefore, should not be viewed as simply relaxation or fun, but as important components of the instructional program.

Because of the importance of play and leisure skills for future life success and adjustment, these skills should be assessed and incorporated into students' programs throughout their schooling. Play and leisure activities vary depending upon developmental level, age, and social context. Goals should be developed and included in a student's IEP that incorporate play and leisure time effectively (Quill, 2000).

Typical Peers

It is important to teach disability-specific issues to typical peers starting in the early grades and continuing through secondary school. In general, school personnel should establish a culture of acceptance regardless of differences. "... typical students can learn to not only accept these students as their friends, but also how to help the target student with learning new social behaviors" (Wagner, 1998, p. 47). Peers can assist in a mentoring capacity, can serve as models for appropriate skills, can provide opportunities for children with ASD to practice and generalize skills, and can intervene in bullying and teasing situations. (It is important to be mindful of confidentiality when using typical peers in mentoring or instructional initiatives.)

Friendships

The concept of friendship is difficult for many children to understand. This is especially true for children with ASD because of their social/communication deficits. Social relationships for children on the spectrum are often stressful and anxiety-provoking and are made particularly challenging because the development and demands of friendships differ, depending on age, grade, gender, and social group.

Making friends is a very complicated undertaking for children with ASD, whether with typical peers or with other children with disabilities. Although most children with ASD demonstrate some social interest in other children, they are likely to show weak friend-making and friend-keeping skills (Bauer, 1996). For example, even when they demonstrate a particular interest in one or a few children around them, their interactions are generally relatively superficial.

As is the case with all characteristics of ASD, friendships making will vary based on the degree of the social deficits and strengths displayed by the individual child and his/her age. For instance, as they move into middle school where the pressures for conformity are greatest and tolerance for difference the least, most children with ASD, including those with greater social and communication skills, are left out, misunderstood, or teased. Even when they want to make friends and fit in, their efforts to do so typically meet with little success (Bauer, 1996). And although tolerance for individual variations and eccentricity often increase at the high school level, the formation of friendships by older adolescents with ASD continues to be complex and generally centers most around shared interests via avenues such as computer or math clubs, science fairs, etc. This is less likely to be the case for children with ASD whose social and communication skills are severely impaired. However, many schools have successfully launched high school initiatives like “Best Buddies,” which match typical peers with students with disabilities for various social activities.

According to McCracken (2004), “the key to friendships for children with ASD is to build awareness, understanding and empathy in their peers, siblings and classmates in an age-appropriate and sensitive manner” (p. 1). While the ability for social play is one of their primary deficits of ASD, and clearly impacts their ability to build friendships through play, their lack of skills should not be confused with lack of desire. “All children, regardless of their unique characteristics or gifts, have the intrinsic need to play and make friends. Children with ASD are no different – they just express this need differently” (McCracken, 2004, p. 1).

Since children with ASD typically have difficulty with friendship skills, it is important that school programs and after-school opportunities are structured to support and build awareness for children to:

- ✧ Recognize and accept the differences of invisible disabilities like ASD
- ✧ Recognize children with ASD as valuable friends
- ✧ Recognize the importance of asking questions and expressing their feelings about differences between themselves and peers with ASD
- ✧ Recognize the unique challenges of ASD and empathize with what it may feel like to be a child with ASD
- ✧ Learn how to promote relations with peers

Fostering friendships with other children need not be restricted to typical peers. Orchestrating opportunities for children with ASD to have play dates with other children with similar developmental disabilities can serve as very helpful experiences to teach relationship building skills. Such

opportunities with other students with ASD or with other disabilities who have similar interests may also reduce some of the stress related to establishing and maintaining relationships. Activities such as those found in Relationship Development Intervention (Gutstein & Sheely, 2002) are helpful resources in planning opportunities for children with ASD with typical peers as well as peers with other disabilities.

Frequently Asked Questions

1. How many hours of service should a child with ASD receive?

As all students with ASD are different, the answer to this question varies, depending upon the individual needs of the child. In general, according to the National Research Council report, students with ASD should receive a minimum of 25 hours of educational services per week, bearing in mind that the law entitles children with autism to at least the same amount of educational time as their typically developing peers. It is important to note that this refers to hours of active engagement in focused instruction and social activities.

2. Should school personnel working with children with ASD have experience and/or additional training beyond their certification? If so, what should this training consist of?

Any professional working with a child with any disability must have enough training, knowledge and experience to effectively develop and carry out the child's IEP. This level of expertise may not typically be provided in a standard certification program. As each team member comes with different certifications, experiences, and training, it is important to assess the ability of the collective team to provide appropriate services to the child with autism rather than individual team members. As a group, team members require knowledge in the areas of characteristics of autism, appropriate assessments and the wide range of teaching methods and strategies available to address the social, behavioral and academic needs of these students.

Training can be accomplished through professional development opportunities or through ongoing supervision. It is expected that the knowledge will transfer to the team, which will eventually have the ability to work with the student independently and build internal school district instructional capacity.

3. How do we determine if a child with ASD requires ESY?

This determination should be based on the specific needs of the student. Although it is always an individual PPT decision, the state has provided guidelines based on case law decisions for determining ESY services (see Appendix III-A). There is a likelihood that ESY services will be needed during the summer months, due to the very nature of ASD. Some factors to consider when making this decision include: regression, the severity of the child's disability, the existence of behaviors that might interfere with the student's ability to benefit in the educational setting during

the school year, and the student's progress of learning self-help skills critical to attaining independence.

4. Should a child with ASD solely receive 1:1 instruction?

While optimal staff-to-student ratios help to provide the intensive teaching that children with ASD require, it is important that as the child's skills increase teaching ratios vary from 1:1 to small-group activities in order to promote independent functioning. As long as learning experiences are well designed, it is best for children with ASD to be taught in a variety of settings and within a combination of staff-to-student ratios (1:1, 1:2, 1:3, whole class). Since generalization of skills is such a critical area of need for children with ASD, opportunities to learn skills in settings that occur naturally as part of their daily routine can be best promoted when students receive group as well as individual instruction.

5. Is there a curriculum for students with ASD?

There is not one curriculum for autism. A comprehensive program consists of multiple curricular areas including but going beyond the required access to the general education curriculum of the school district. An individualized curriculum should include goals based upon ongoing assessments that identify the student's individual strengths and deficit areas within the general education curriculum as well as other needs of the child.

6. Is the school system responsible for providing training for families?

The IEP should include a statement of the special education and related services to be provided to the child (34 CFR § 300.347(a)(3) to assist the child in benefiting from his/her education. Parent counseling and training are considered related services (34 CFR § 300.24). Thus, to the extent that parent counseling and training are appropriate to assist parents in understanding the special needs of their child, to provide parents with information about child development and to help parents to acquire the necessary skills that will allow them to support the implementation of their child's IEP or IFSP, it should be included in the IEP as a related service (34 CFR § 300.24 (7)). Families' ability to carry out programming goals and interventions in the home and community will vary. The diversity that marks the needs of families of children with ASD calls for a highly individualized approach. Parent training may range from teaching parents effective ways to integrate their child into community settings, to reducing problem behaviors at home, to helping siblings cope with a brother's or sister's disability. Parent involvement activities provide an ideal framework to enhance the partnership between home and school.

Appendix III-A Extended School Year Services (ESY)

TO: Directors of Special Education and Pupil Services

FROM: Tom B. Gillung, Chief
Bureau of Special Education and Pupil Services

DATE: June 1, 1996

SUBJECT: Extended School Year Services

Students who require the provision of an extended school year (ESY) program in order to receive a free appropriate public education must receive necessary instruction and support services during periods when school is not in session. Whether an individual disabled student will receive ESY services must be determined on an individual basis through the individualized education program (IEP) process. The amount of special education and related services to be provided to an individual disabled students in an ESY program must be determined by the planning and placement team (PPT) convened to review the IEP and must be reflected in the student's IEP, and any changes in the amount of services cannot be made without holding another PPT meeting to revise the IEP.

A review of the applicable case law establishes the following parameters for review. First, in the case of *Armstrong v. Kline* (EHLR 551:258, 1979), the court established five criteria for determining whether or not ESY services were necessary to provide students with a free appropriate public education. Those criteria are:

- ✧ the nature of the student's disability;
- ✧ the severity of the disabling conditions;
- ✧ the areas of learning crucial to attaining the goal of self-sufficiency and independence from caretakers;
- ✧ the extent of regression caused by interruption in educational programming; and
- ✧ the rate of recoupment following interruption in educational programming.

The regression/recoupment analysis seems to cause the most confusion and is the most frequently cited of the above criteria. A review of other cases indicates several things with respect to the *Armstrong* criteria: First, the cases have explicitly rejected the regression analysis as the sole basis for determining the necessity of ESY services, and second, an actual experience of regression with significant recoupment time is not necessary to establish a child's need for ESY services. It would seem, then, that the PPT may anticipate a child's needs for ESY services based on the other criteria without having any actual data on regression/recoupment.

Extended School Year Services

In *Crawford v. Pittman* (1983-94 EHLR DEC. 555:107), it was asked whether the benefits accrued to the child during the regular school year would be significantly jeopardized if he/she were not provided an educational program during the summer months. Other criteria noted were: ability of child's parents to provide the educational structure at home; availability of alternative resources; ability of the child to interact with nondisabled children; areas of child's curriculum which need continuous attention; the child's vocational needs; and, whether the requested service was extraordinary to the child's condition, as opposed to an integral part of a program for those with the child's condition.

In summary, while the *Armstrong* criteria may be used as a guideline for determining ESY eligibility, it is clear that other criteria should also be reviewed. It is critical that the review of the appropriateness of offering ESY services must be individualized to the child.

If you have any questions regarding this memo, please contact Terri DeFrancis at 638-4275.

UPDATE #28

January 10, 2002

Page 6

EXTENDED SCHOOL YEAR SERVICES

A clarification note regarding the provision of extended school year services is necessary at this time. Parents are reporting to the Bureau that some school districts limit the analysis of a child's eligibility for extended school year services to a regression/recoupment criterion. This is not a correct application of the June 1, 1996 memo distributed to school districts or of the current case law that addresses this issue. See for example, *Reusch v. Fountain*, 21 IDELR 1107 (1994)*. There are both regression and nonregression factors which must be considered in determining whether or not a child may be eligible for extended school year services. They are:

- ✧ The nature or severity of the student's disability (nonregression);
- ✧ The student is likely to lose critical skills or fail to recover these skills within a reasonable time as compared to typical students (regression/recoupment);
- ✧ The student's progress in the areas of learning crucial to attaining self-sufficiency and independence from caretakers (nonregression);
- ✧ The student's stereotypic, ritualistic, aggressive or self-injurious interfering behaviors prevent the student from receiving some educational benefit from the program during the school year (nonregression); or
- ✧ Other special circumstances identified by the IEP team such as: the ability of the student to interact with other non-disabled students; the areas of the student's curriculum that need continuous attention; the student's vocational needs; or the availability of alternative resources.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

The provision of extended school year services is the exception and not the rule for students receiving special education and related services. Extended school year means services provided beyond the length of the regular school year as described in the IEP and is provided at no cost to the parents. Eligibility for ESY must be determined each year for individual students who may be eligible to receive these services.

The determination of whether or not a child will be eligible for an extended school year program and the content and location of the program are generally discussed at the annual review for the child. This should be done early enough and a program of services offered to allow sufficient time for any dispute regarding the provision of the services to be resolved before the start of the extended school year program. All parents should be advised of the availability of extended school year services for eligible children in any parent or student manual, or other description of services provided by the district to parents. The Bureau has a District brochure on the provision of extended school year services that we would be happy to share with you.

In summary, it is important to remember that both regression and nonregression criteria should be reviewed to determine a child's eligibility for services and that discussions regarding a child's eligibility for ESY and what that program should look like should take place early enough to allow any dispute to be resolved before the beginning of the ESY program.

If you have any questions, please contact Theresa C. DeFrancis at (860) 807-2018.

**Reusch* is out of the District Court in Maryland. Although the findings and decision of the court are not binding in Connecticut, it is illustrative of the questions the courts are asking about extended school year services and raises some important issues for our consideration. A copy is available from the bureau.

Appendix III-B Websites

Resource	Website
Attwood, Tony	http://www.tonyattwood.com.au
Autism Arts	http://www.autismarts.com
Autism Society of America	http://www.autism-society.org
Autism Treatment Network	http://www.autismtreatmentnetwork.org
Center for Disease Control (CDC)	http://www.cdc.gov
Council for Exceptional Children (CEC)	http://www.cec.sped.org
CT Association for Children and Adults with Learning Disabilities (CACLD)	http://www.caclld.org
CT Autism Spectrum Resource Center, Inc.	http://www.ct-asrc.org
CT Birth to Three System	http://www.birth23.org
CT Children’s Medical Center	http://www.connecticutchildrens.org
CT Office of Protection and Advocacy	http://www.ct.gov/opapd
CT Parent Advocacy Center	http://www.cpacinc.org
CT Regional Education Service Center (RESC) Alliance	http://www.ctrescalliance.org/
Families for Early Autism Treatment (FEAT)	http://www.feat.org
FEAT of CT	http://www.ctfeat.org
Friends of Autistic People	http://www.autisticadults.com
Gray Center	http://www.thegraycenter.org
Interactive Collaborative Autism Network (ICAN)	http://www.autismnetwork.org
National Alliance for the Mentally Ill (NAMI)	http://www.nami.org
National Autism Association	http://www.nationalautismassociation.org
National Center on Secondary Education and Transition (NCSET)	http://www.ncset.org

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

National Dissemination Center for Children and with Disabilities	http://www.nichcy.org
Office of Special Education Programs (OSEP)	http://www.ed.gov/about/offices/list/osers/osep/index.html
Online Asperger Syndrome Information and Support	http://www.aspergersyndrome.org
Sibling Support Project	http://www.siblingsupport.org
Sped Net	http://www.spednet.org
Special Education Resource Center (SERC)	http://www.ctserc.org
Tourette Syndrome	http://www.tsa-usa.org
U.S. Department of Education	http://www.ed.gov
Wrightslaw	http://www.wrightslaw.com
Yale Child Study Center	http://info.med.yale.edu/chldstdy/autism/

Connecticut Parent Resources

Autism Society of Connecticut (ASCONN)
P.O. Box 1404
Guilford, CT 06437
(888) 453-4975
E-Mail: asconn@sbcglobal.net
Website: <http://www.autismsocietyofct.org>

Autism Spectrum Disorders
Support Group
Southeastern Connecticut
20 Hopkins Drive
Niantic, CT 06357
(860) 739-9342
Patricia Moody/Pat Owens/Pet Kemsack

Child Development Infoline
Information & Referral for Children with
Developmental Disabilities
(800) 505-7000
Website: <http://www.birth23.org/>

CARE Alliance
Connecticut Autism Resource & Education
P. O. Box 5
Marlborough, CT 06447
(860) 267-5733
E-Mail: www.ctautism.org
margaret_d_jordan@sbcglobal.net

Connecticut Families for Effective Autism
Treatment (CT FEAT)
P. O. Box 370352
West Hartford, CT 06137-0352
Hotline: (860) 571-3888
Contact: Rosanne Shea, President
E-Mail: ctfeat@ctfeat.org
Website: <http://www.ctfeat.org/>

CT Autism Spectrum Resource Center
1978 Whitney Avenue
Hamden, CT 06517
(203) 248-5222
Lois Rosenwald/Stacy Hultgren
E-Mail: stacy.asrc@sbcglobal.net

CT Parent Advocacy Center (CPAC)
338 Main Street
Niantic, CT 06357
(800) 445-2722
Nancy Prescott

Farmington Valley Asperger's Network
(860) 589-0097
Lee McFadden

Friends of Autistic People (FAP)
(203) 661-8510
E-Mail: bridaranyi@aol.com
Website: <http://ww.autisticadults.com>

Greenwich Autism Project
ARC Youth Division
132 East Putnam Avenue
Cos Cob, CT 06807
(203) 629-1880, x 327
Fax: (203) 629-4390
Director, Susan G. Izeman, Ph.D., BCBA
E-Mail: izeman@arcgreenwich.org

Parents and Caregivers of Autistic Children
6 Johnny Cake Road
Niantic, CT 06357
Contact: Danielle Green-Barnard
(860) 739-2410
E-Mail: dkg64@sbcglobal.net

Special Education Resource Center (SERC)
25 Industrial Park Road
Middletown, CT 06457
(800) 842-8678
Website: <http://www.ctserc.org>

Litchfield County Autism Spectrum
Association, Inc. (LACASA)
P.O. Box 2026
Torrington, CT 06796
(860) 489-2790
E-Mail: lacasa@optonline.com
Website: <http://uhaweb.hartford.edu/lacasa/>

CHAPTER IV

Interventions

Once a child has been identified as eligible for special education and related services in the autism category, the most frequent question asked by parents is, “What do we do now?” It is important to remember that children with autism are a heterogeneous group of individuals with unique abilities, talents, and needs. As a result, a variety of interventions may be necessary. Treatment programs should never lose sight of the long-term goal to improve the quality of life indicators for children with ASD. That is, empowerment to live, work, learn (be educated), be mobile, and have fun, in natural settings with family, friends, and coworkers. Any evaluation of treatment programs must focus on outcomes, not program specifics (Freeman, 1997).

In a review of 10 representative model programs, the National Research Council (2001) found that each derived from either a behavioral or a developmental approach. While conceptual differences between developmental and behavioral approaches to intervention are real, the differences in practice appear to be narrowing (National Research Council, 2001). That is, the developmental/relationship model is increasingly paying attention to environmental variables, including the provision of consistent structure, adult attention, and the use of reinforcement. At the same time, current behavioral approaches look at antecedents, teaching in the natural environment, and direct instruction of social behaviors. Thus, there has been a “shift from viewing behavior support as a process by which individuals are changed to fit environments, to one in which environments are changed to fit the behavior patterns of people in the environments” (Horner, Carr, Strain, Todd, & Reed, 2000, p. 6). These types of changes incorporate positive practices from each framework.

As advanced in the 1998 “Report of the Connecticut Task Force on Issues for the Education of Children with Autism,” no single method guarantees success in the education of children with autism. The diverse needs of this population often dictate a more blended approach. “Blended” is not meant to sanction haphazard, watered-down methodology. Instead, it is intended to underscore the need to tailor programming to the individual needs of the child by selecting techniques from different approaches that have known effectiveness for children with autism (Connecticut State Department of Education, 1998).

The PPT must make instructional decisions based upon the needs of the individual child while keeping in mind evidence-based practices. The key to any child’s educational program lies in the contents specified in the IEP, intervention strategies matched to objectives and student profile, and appropriate instructional accommodations. More important than the conceptual framework of the program is how the environment and educational strategies allow the goals for the child and family to be implemented. Effective services will vary considerably across individual children, depending on a child’s age, cognitive and language levels, behavioral needs, and family priorities (National Research Council, 2001).

Direct medical interventions are not the responsibility of the public schools, but need to be considered by families. However, some medically related issues may need to be brought to the attention of school staff if they affect educational programming.

Behavioral Approach

The traditional behavioral approach (Lovaas, 1981) is based on applied behavioral analysis (ABA) and emphasizes precision and organization during instruction. This includes the adult taking responsibility for structuring the learning environment; utilizing chaining, prompting and shaping techniques; and using reinforcement contingent upon the child's responses. In brief, the systematic behavioral approach may be summarized as follows:

For each learner, skills to be increased and problem behaviors to be decreased are clearly defined in observable terms and measured carefully by direct observation...Selection of treatment goals for each individual is guided by data from initial assessment, and a curriculum scope and sequence that lists skills in all domains (learning to learn, communication, social, academic, self-care, motor, play and leisure, etc.), broken into smaller component skills and sequenced developmentally from simple to complex. The overall goal is to help each learner develop skills that will enable him or her to be as independent as independent and successful in the long run. (Green, 2005; <http://behavior.org/autism/> retrieved April 7, 2005)

Developmental/Relationship Approach

The developmental/relationship approach is based on typical child development. This type of intervention emphasizes the development of skills while engaging in personally meaningful action-based activities within a variety of groupings. Based on the idea that children acquire skills through interactions (Quill, 2000), an emphasis is placed on child-centered activities facilitated by an adult in the natural setting. The rationale for using a developmental approach to enhance learning in children with ASD is the belief that developmental growth is the same for all children, and that using more natural environments can motivate a child to engage in the learning process (Greenspan, 1992).

Interventions

The intent of this section is to present information related to interventions that are frequently used and discussed within educational programs for children with ASD. This listing of interventions is neither exhaustive nor an endorsement. The descriptions are intended to provide teams with a starting point and direction to further explore resources if an intervention is being considered.

Interventions have been classified and organized in alphabetical order as either an approach or a strategy. An *approach* utilizes a set of organizing principles underlying the rules and procedures used; it describes how the child's learning is approached. A *strategy* is a careful plan or method; it is a tool that can be used to support the child's learning. An approach may incorporate a variety of strategies.

Determining if an intervention is appropriate for an individual child is a difficult task. As the incidence of autism has increased, many new treatments, therapies, and approaches have emerged. When considering a treatment, it is important to keep in mind that there are no quick fixes and that it is critical to investigate an approach before implementing with an individual child. Evidence-based knowledge regarding the efficacy of specific ASD-related interventions changes over time. Since our body of knowledge and information changes rapidly, parents and school staff must ask relevant questions and make some personal determination.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

The following questions help evaluate interventions presented in this section as well as others that will continue to appear.

Questions to Ask When Evaluating the Appropriateness of Interventions

1. How does this intervention fit with the current approach being used to educate the child?
2. How does this intervention fit with the profile of the child's strengths, needs and learning style?
3. Is this intervention consistent with what we know about child development, the development of children with ASD and effective treatments?
4. How does this intervention fit with the long-term goals for the child?
5. How will you measure if the intervention is successful? What type of data can be collected and how will the data be used to make decisions regarding the effectiveness of the intervention?
6. How long will you try the intervention before reviewing its effectiveness and determining whether to continue the intervention?
7. What may the child be losing in terms of current programming in order to find time to implement this intervention?
8. What, if any, are the negative effects of trying the intervention?
9. Is there any empirical research on the effectiveness of the intervention?
10. What may be the costs in terms of time, emotionally and financially, of the intervention for the child, family, and educational community?
11. Do those whom you trust and respect with regard to understanding the child support your belief that trying this intervention is the right thing for the child?

Additional references to be accessed in developing sets of questions to ask related to ASD intervention strategies include the following:

Freeman, B.J. (1997). Guidelines for evaluating intervention programs for children with autism.

Journal of Autism and Developmental Disorders, 27(6), 641-659.

National Institute of Mental Health. (2004). *Autism spectrum disorders (pervasive developmental disorders)*, <http://www.nimh.nih.gov/health/publications/autism>.

In closing it may be helpful to consider the words of B. J. Freeman:

“Approach any new treatment with hopeful skepticism. Remember the goal of any treatment should be to help the person with autism become a fully functioning member of society.”
(1997, p. 647)

Approaches

In this context an approach is defined as a set of organizing principles underlying the rules and procedures used; it describes how the child's learning is approached.

Applied Behavior Analysis

Applied behavior analysis, or ABA, is the science of applying “principles of behavior” to shape and change behavior in measurable ways. ABA is “the science in which procedures derived from the principles of behavior are systematically applied to improve socially significant behavior to a meaningful degree and to demonstrate experimentally that the procedures employed were responsible for the improvement in behavior” (Cooper, Heron, & Howard, 1989, p. 15).

Functional behavioral assessment is a process for gathering information that can be used to build effective behavioral support plans to reduce challenging behaviors. The outcome of a functional behavioral assessment helps predict when observable behaviors will and will not occur in daily routines and provides hypotheses about the function(s) that the undesirable behaviors serve for a child (O’Neill, Horner, Albin, Storey, & Sprague, 1990). Based upon the results of the analysis, interventions are designed and implemented systematically to change the targeted behaviors.

The “principles of behavior” are used as strategies to teach skills in a specialized sequence to increase socialization, communication, and adaptive functioning skills. For students with ASD, behavior analytic treatment for ASD focuses on intense training of small, discrete skills through multiple training and practice or trials referred to as discrete trial instruction (DTI). A skills series is taught using reinforcement until the student has mastered all the appropriate skills and can link them together and use them in the generalized natural environment. An important component of ABA is reinforcement procedures. A reinforcer is any event that follows a behavior and increases the probability of the behavior changing. Data are continuously collected and analyzed to determine intervention effectiveness in changing the defined behaviors.

However, ABA is not limited to just DTI. Other components of ABA include generalization training, shaping, prompting and prompt fading, programming, imitation and instruction, task analysis, differential reinforcement, and extinction.

Developmental Intervention Model (Floor Time)

The Developmental Intervention Model (DIM) is an intervention model commonly referred to as Floor Time, developed by Stanley Greenspan. The model is based upon the assumption that a child’s symptoms reflect unique biologically based processing difficulties that may involve affect, sensory modulation and processing, motor planning, and symbol formation (Greenspan & Wieder, 1998). Relationships and affective interactions may go awry secondarily, so intervention is aimed at helping a child to work around the processing difficulties to reestablish affective contact (National Research Council, 2001).

“Floor time” is an important component of DIM, whereby the caregivers (parents, teachers, etc.) enter the child’s activities and follow the child’s lead. Through mutual, shared engagement, the caregiver uses techniques, known as opening and closing circles of communication, to engage the child into more complex interactions. “Of course, the larger and very serious game being played by the parent is to turn even what looks like random behavior into intentional acts that get a specific response, and thereby become the means of nudging the child’s crucial affective development back on track” (Autism National Committee, p. 4, retrieved on April 12, 2005, from <http://www.autcom.org/behaviorism.html>). This developmental model seeks to address the deficit area of social communicative relationships found in children with autism.

LEAP (Learning Experiences Alternative Program)

LEAP was one of the first programs designed to educate children with autism with typical peers based on the premise that social isolation is the single most powerful predictor of adjustment problems (Strain, 1982). The curriculum uses peer-mediated social skill intervention taught in an integrated preschool environment. “The curriculum blends a behavioral approach with developmentally appropriate practices” (National Research Council, 2001, p. 144)

The LEAP curriculum targets goals in social, emotional, language, and adaptive behavior, as well as language and cognitive and physical development. The program includes a parent-training component aimed at teaching parents behavior management and educational skills to utilize in the home and community. The overall goal of the program is to assist children reach their optimum level of development and assist families in being effective as their children are integrated fully into their respective communities.

SCERTS™ (Social Communication, Emotional Regulation, Transactional Support)

This model, developed by Prizant, Wetherby, Rubin, and Laurent, is intended to provide a flexible, yet comprehensive framework for designing a multidisciplinary plan for children with ASD. The SCERTS™ model contains a core set of stated values and beliefs that become a filter for prioritizing educational decisions (Prizant, Wetherby, Rubin, Rydell, Laurent, & Quinn, 2003). Goals, specific objectives, progress ratings and evaluation procedures are recommended with an emphasis on developing goals that address the core deficit areas of children with ASD.

Social **C**ommunication goals address the two major areas that present challenges to children with ASD, the capacity for joint attention and the capacity for symbol use (Prizant et al., 2003). Further, **E**motional **R**egulation is addressed as an essential component necessary for developing communication and social skills. The support of a child’s arousal, through environmental modifications and sensory techniques, builds adaptive and coping strategies, making the child more available for learning and positive social exchange.

Finally, natural settings with flexible grouping is desired, with individualized planning for the necessary supports and modifications. These **T**ransactional **S**upports include the visual and organizational supports children with ASD commonly need, support to families and staff, and the supports necessary to facilitate social interactions with partners.

TEACCH (Treatment and Education of Autistic and related Communication handicapped Children)

Treatment and **E**ducation of **A**utistic and **C**ommunication related handicapped **C**Hildren at the University of North Carolina School of Medicine at Chapel Hill was founded in 1972 as a statewide program to provides educational services to children with ASD of all ages. A structured teaching approach developed by Dr. Eric Schopler utilizes both naturalistic and behavioral procedures.

The foundation for structured teaching is the principle of modifying the environment to accommodate the needs of individuals with ASD (Schopler, Mesibov, & Hearsey, 1995). Structured teaching involves organizing the environment through the use of clear visual information and programming that is geared towards the student’s strengths, learning style, and interest. The four main components integrated of the approach are the physical organization of the environment, visual schedules, work systems, and organization of the tasks. Finally, structured teaching uses individualized assessments, establishment of proactive and adaptive routines and systematic use of

visual supports. This increases the learning of new skills, independence and reduces behaviors that stem from confusion, anxiety and over stimulation.

Verbal Behavior

Verbal Behavior is an intervention that is focused on language as a skill that can be analyzed and targeted according to behavioral principles (Sundberg & Partington, 1998). That is, language is a behavior and can, therefore, be influenced by reinforcement and maintained through motivation. The use of language is directly related to the value of the reinforcement that follows the communication attempt. Carbone, Sundberg, and Partington have used these teaching procedures to achieve spontaneous language in children with autism.

The intervention is behaviorally based, using applied behavioral principles as articulated by B. F. Skinner (Skinner, 1957). It promotes language skills through intensive teaching and naturalistic environment training. Utilizing the Assessment of Basic Language and Learning Skills (ABLLS) (Partington & Sundberg, 1998), an assessment is conducted to determine what skills needed to be taught to the child of basic language and learning across 26 different domains. It is anticipated that by teaching the missing skills identified by the language assessment the child will develop more appropriate functional language skills. The emphasis is on teaching the function of language through teaching procedures that focus on transferring the child's ability to respond across all environments.

Strategies

In this context a strategy is defined as a careful plan or method; a tool that can be used to support the child's learning.

Assistive Technology

Assistive technology (AT) can be useful and necessary for children with autism who have difficulty with communication, processing, cognitive development and/or motor skills. All children with disabilities who are eligible to receive special education services must be provided with AT, if appropriate, as part of their IEP (34 C.F.R. § 300.308(b)).

The federal definition of AT includes both assistive technology devices and assistive technology services (34 C.F.R. § 300.308(a)). An *assistive technology device* is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities (34 C.F.R. § 300.5). An *assistive technology service* can include assistance in the selection, acquisition, coordination of the use of assistive technology by the child and training of the professionals and parents (34 C.F.R. § 300.6).

AT covers many different types of devices, including cognitive or educational devices such as switch-operated toys, computer hardware, or software relating to different academic areas. For some children it includes software for reading, writing and organizational skills, such as word prediction, text readers, and/or graphic organizers. It may also include mobility devices that assist children to move through and interact with their environment.

AT is not an end in itself. It is intended to support the child's in achieving his or her goals. Therefore, it is critical to determine what the team wants the child to do before considering how and what AT can help facilitate.

Augmentative Alternative Communication (AAC)

Some children with ASD have difficulty making their needs known verbally. Augmentative alternative communication devices such as communication boards, vocal output communication systems, and assistive listening devices, including FM systems, may also be considered for a child. The Picture Exchange Communication System (see page 76) is one application of AAC. A continuum of choices from simple to complex should be considered when trying to find the best possible assistive technology to use with a particular student or child for different tasks in different settings. AAC can be useful for many, and may be necessary for some. Augmentative communication incorporates strategies that augment or supplement speech as a strategy to increase communication skills. AAC includes the use of visual language systems such as visual icons or words representing specific communication units, which capitalize on strong visual processing of many children with autism. AAC provides a motorically simple way to communicate needs and may preempt the development of challenging coping behaviors (National Research Council, 2001).

According to the American Speech Language Hearing Association (ASHA) (1991), an AAC system is:

an integrated group of components, including the symbols, aids, strategies, and techniques used by individuals to enhance communication. This definition of a system also emphasizes the use of multiple components or modes for communication. The term symbol refers to the methods used for 'visual, auditory, and/or tactile representation of conventional concepts (e.g., gestures, photographs, manual signs sets/ systems, pictoideographs, printed words, objects, spoken words, Braille).' The use of gestural communication, including facial expressions, eye gazing, and body postures, in addition to hand gestures, falls within the overall definition of AAC. AAC can be unaided (sign language) or aided. Aided refers to a physical object or devices used to transmit or receive messages (e.g. communication book, board, chart, mechanical or electronic device, computer). (p. 10)

Research examining the impact of AAC on speech has found that the former does not impede the latter. To the contrary, AAC has been shown to facilitate speech in many cases (ASHA, 2004).

Person-Centered Planning

Person-centered planning can be used to create a rich and meaningful life for an individual with ASD. The focus is on integrating the student's capacities, abilities, and interests through meaningful activities in the places where he or she spends time (e.g., school, home, neighborhood).

The primary goal of person-centered planning is to lead the team, which includes the family, through a series of questions that elicit information that can subsequently be used to plan an effective education program to meet the student's current and future needs. The process addresses the past, the present, and the future by typically considering the following: attributes, history, preferences, skills, environments, relationships, future outcomes, and areas of support (Forest & Pearpoint, 1992). Person-centered planning is an important step in developing a cohesive team and establishing a shared vision for the student with ASD.

Picture Exchange Communication System (PECS)

PECS, originally developed for preschoolers with autism (Bondy & Frost, 1994), is a behaviorally based augmentative/alternative communication approach that uses pictures, photographs, or other visual symbols. Requesting is taught as the first skill without requiring the student to demonstrate prerequisite skills such as eye contact, imitation, facial orientation, match to sample, or

labeling. Thus, children do not need to be able to know or understand a picture prior to learning to use it to request desired items or events. Instruction in PECS begins after potential reinforcers for the individual have been determined.

In the first phase of PECS, the student learns to pick up a single symbol (e.g., photograph, line drawing) and place it in the open hand of a facilitator, who gives the student the associated item (e.g., food, drink, toy). Initially, an assistant to the facilitator provides physical and gestural prompts but no verbal prompts. As the student begins to make the picture exchange, the assistant moves away so that the student learns to take the picture to the facilitator to exchange it for the desired item. Gradually, the number of symbols is increased to teach symbol discrimination (Bondy & Frost, 1994). The facilitator conducts comprehension checks by asking the student to select the requested item from an array after offering the symbol and by providing natural consequences and/or corrective feedback, as appropriate. The program also builds in the use of various attributes as a way of expanding vocabulary and introducing responding to simple questions as well as commenting about items and events (Frost & Bondy, 2002).

Pivotal Response Training (PRT)

PRT was developed by Dr. Robert Koegel and Dr. Laura Schreibman at the University of California, San Diego. Although the model is based on ABA, it supports a more naturalistic approach to behavior that (a) excludes negative interactions, (b) incorporates the use of natural prompts in inclusive environments, and (c) is family-centered (Koegel, Koegel, Harrower, & Carter, 1999).

Targeted at language skills, play skills, and social behaviors in children, pivotal behaviors within PRT include responding to multiple cues or stimuli, motivation, self-management, and self-initiation. Components of PRT used to increase motivation in language training include (a) incorporating child choice and preference in selection of activities and reinforces; (b) reinforcing all attempts to respond; (c) using direct, natural reinforcers that are functionally related to the child's response; (d) using stimulus variation to teach generalized responses; (e) interspersing easy tasks with more difficult tasks; and (f) turn taking. When attention and motivation are improved, students start to experience more success in educational situations, resulting in generalized improvement and the ability to function independently in inclusive settings (Koegel, Koegel, & Carter, 1999).

Positive Behavioral Intervention and Support

Positive behavioral intervention and support is an ongoing proactive, problem-solving approach that looks at the child's behavior in relationship to the context of his/her life. Based on an underlying belief that individuals are doing something for a reason, referred to as communicative intent (Dunlap & Fox, 1999) positive behavioral support changes the focus from trying to manage or eliminate negative behaviors to looking at how to proactively support the child so the negative behaviors are no longer necessary. The goal of positive behavioral support is to increase the individual's competence as well as creating positive environments and outcomes (LaVigna & Donnellan, 1986). Finally, there is also an expectation that positive behavioral support involves system change that includes changes in the behavior of others as part of creating a supportive environment.

Positive behavioral support includes the use of a team approach, functional assessment, data-based decisions and supports that enhance the quality of life for the student. Briefly, functional assessment is as a means of determining what the intent of a given behavior is, why the individual is

behaving in a certain way, and what function the behavior is serving. Once the functions of the target behavior(s) are determined, this information is considered when developing a positive behavioral support plan.

Relationship Development Intervention (RDI)

RDI is based on research that identified the inability to share experiences as the primary factor in limiting individuals with ASD in developing meaningful social relationships. RDI focuses on remediating relationship abilities rather than on teaching specific social skills. The intervention is based on the premise that the core deficits of ASD, rigid thinking, aversion to change, inability to understand other's perspective, failure to empathize, and absolute, "black-and-white" thinking, must be addressed (Gutstein & Sheely, 2004) to improve the quality of the individual's life.

The goals and objectives for a child engaged in RDI address developing the ability to socially reference and rapidly adapt, co-regulate, and coordinate actions, perceptions, feelings, and ideas with social partners. Six key factors are emphasized: (a) teaching skills in a developmental, stepwise progression, where rudimentary skills form the foundation for their more sophisticated counterparts; (b) initially providing instruction from more competent adults, who act as both guides and participants; (c) developing simple, ritualized frameworks that allow for a degree of predictability without limiting the potential introduction of novelty and variation; (d) initially working in simple, nondistracting environment; (e) spotlighting and amplifying the important actions and communication of adult coaches so that they are easier to read by the novice learner; and (f) moving gradually from adult guides to evenly matched peers and from simple to more complex settings (Gutstein & Whitney, 2002).

Sensory Integration (SI)

Many individuals with ASD have difficulty processing sensory information. Dr. A. Jean Ayers, occupational therapist (1979) defined sensory integration as:

the organization of sensation for use. Our senses (touch, movement, smell, taste, vision & hearing) give us information about the physical conditions of our body in the environment around us. ... Countless bits of sensory information enter our brain at every moment, not only from our ears and eyes, but also from every place in our bodies. (p. 5)

Sensory integration is based on the premise that addressing these difficulties through therapeutic intervention can lessen symptoms and increase adaptive behaviors so the child is able to be more comfortable and will function more effectively. According to Ayers (1979),

There are three aspects of poor sensory processing that we see in autistic children. One, sensory input is not being "registered" correctly in the child's brain, and so he pays very little attention to most things, while at other times he overreacts. Two, he may not modulate sensory input well especially vestibular and tactile sensations, and so he maybe gravitationally insecure or tactilely defensive. Three, the part of his brain that makes him want to do things, especially new or different things, is not operating normally, and so the child has little or no interest in doing things that are purposeful or constructive. (p. 124)

Sensory integration therapy provides children with activities that challenge and support children's ability to process sensory input in a way that allows and develops organized and successful adaptive responses to sensory stimuli.

Social Strategies

Research and clinical and educational practice over the past 40 years has focused on the difficulties that children with ASD have with social relationships and human interactions in order to design effective treatment method for this deficit. "Several theoretical and developmental approaches to the social difficulties in autism have had significant effects on intervention strategies offered over the years" (National Research Council, 2001, p. 66).

Social skills are taught in a variety of ways using many modes of instruction. It is important that these skills not only be taught through direct instruction but also in their natural environments to support generalization of the learned skills. Further, social skills training should focus on both initiation and reaction in social situations. The following list, although by no means exhaustive, includes several ways in which social skill training is currently being presented.

✧ **Comic Strip Conversations (CSC)** developed by Gray (1994, p.1) "... are a conversation between two or more people using simple drawings. These drawings serve to illustrate the ongoing communication, providing additional support to the individual who struggles to comprehend the quick exchange of information that typically occurs in conversations."

✧ **Social Stories**™, also developed by Gray, consist of short stories that describe a situation in terms of relevant social cues and common responses, thereby providing a student with accurate and specific information regarding what occurs in a situation and why. "CSC and Social Stories are based on the belief that visualization and social supports found useful in structuring the learning of student with autism" (Gray, 1994, p. 1).

✧ **The Situation, Options, Consequences, Choices, Strategies, Simulation (SOCCSS)** strategy was developed to help student with social interaction problem put social and behavioral issues into sequential form. According to Myles and Southwick (1999), this strategy helps students understand problem situations and lets them see that they have to make choices about a given situation and that each choice has a consequence.

✧ **Home base** is another way to help students with ASD cope with social situations by arranging for a place where they can go when they become overwhelmed and feel a need to regain control (Myles & Southwick, 1999). When students feel the need to leave the classroom, they may take their assignment to "home base," a less stressful environment in order to maintain control and avoid a meltdown. Thus, having a home base can provide a child with the security of an escape plan when taking a risk in social situations.

✧ **The Circle of Friends** is a method of developing friendships between people with and without disabilities (Perske, 1988). Circle of friends "... provides an excellent venue for students to

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

practice social skills that they may have learned from adults in direct instruction situations (Myles & Southwick, 1999, p. 89).

✧ **Power Cards** are visual aids that assist children with ASD in understanding social situations, such as routines, the meaning of language, or what is referred to as the “hidden curriculum.” “A brief scenario is used to explain how the hero or special interest has encountered and solved the problem. Then a Power Card (typically the size of a tracing card or business card) is created that summarizes the strategy and contains a picture of the special interest” (Gagnon, 2001, p. 2). The student then uses the card as a reference or reminder about how to understand and work through difficult situations as they arise.

✧ **Peer tutoring** involves “socially competent peers learning how to use effective teaching techniques and positive reinforcement to teach academic subjects to classmates with autism” (Simpson, 1991, p. 10). In peer tutoring students with autism work in structured pairs or groups with trained tutors who are aware of the characteristics of autism.

Frequently Asked Questions

1. Does the IEP have to specifically address methodology?

Federal law does not require that a child's IEP identify specific methodology. The IEP must address measurable annual goals and benchmarks, including criteria and evaluation procedures. Additionally, it must delineate the supports necessary to implement the IEP. Such supports may be specific to certain methodologies while ensuring that progress is determined by the criteria set in the IEP.

2. Does a school district have to provide a specific instructional methodology requested by a parent (picture exchange system, discrete trial instruction, etc.)?

A school district is required to provide a child with an appropriate education program as determined by the PPT. The PPT must discuss the request within the context of the child's overall program goals and benchmarks. Often, a specific instructional methodology is identified as a recommendation and written into the goals and objectives as one component of a program. The PPT can determine that an alternative instructional methodology is appropriate to meet the requirements of a child's IEP. Actions that have been proposed or refused by the PPT must be recorded and indicated on page 2 of the current IEP form, "Prior Written Notice." Recommendations may be listed on page 1 of the IEP.

3. If a school district is implementing programs that primarily use the principles of applied behavior analysis, are staff members required to have completed national board or other state (e.g., Florida, Pennsylvania or Texas) certification in applied behavior analysis?

There is currently no Connecticut state certification or credential in applied behavior analysis or requirements that school staff implementing programs based upon the principles of applied behavior analysis obtain national board or other state certification in applied behavior analysis. School districts are responsible for making sure that school staff has the skills, training, and experience necessary to implement the goals, benchmarks and any instructional strategies proposed on a child's IEP. Specifically, school staff should have experience and training in implementing programs based upon the principles of applied behavior analysis, positive behavioral supports, completion of functional behavioral assessments and developing behavioral intervention plans.

4. Is there a “best” instructional approach for a student with ASD?

Many school programs offer components of both research-based behavioral techniques and sound developmental practices. Although it is generally agreed that certain core deficit areas are common in children with ASD, the need for particular methods varies by age level, degree of social communication impairment, and severity of maladaptive behaviors. Educational programs should address needs that are unique to children with ASD as well as accompanying disabilities. Environmental factors and family needs must also be considered in choosing particular interventions.

Although there is evidence that interventions lead to improvements, there does not appear to be a clear, direct relationship between any particular intervention and children’s progress. Thus, while substantial evidence exists that treatments can reach short-term goals in many areas, gaps remain in addressing larger questions of the relationships between particular techniques and specific changes (National Research Council, 2001, p. 5).

Appendix IV-A Resources and Web Addresses

Sources Related to Efficacy of ASD Intervention Strategies

Autism Society of America: <http://www.autism-society.org>

Freeman, B. J. (1997). Guidelines for evaluating intervention programs for children with autism. *Journal of Autism and Developmental Disorders*, 27(6), 641-659.

National Institute of Mental Health. (2004). Autism spectrum disorders (pervasive developmental disorders). Retrieved July 22, 2011, from <http://www.nimh.nih.gov/health/publications/autism>.

Approaches

Applied Behavior Analysis

Resources

Fovel, J. T. (2002). *The ABA program companion: Organizing quality programs for children with autism and PDD*. New York: DRL Books

Harris, S., & Weiss, M. J. (1998). *Right from the start: Intensive behavioral intervention for young children with autism*. MD: Woodbine

Lovaas, O. I. (1981). *Teaching developmentally disabled children: The me book*. Austin, TX: Pro-Ed.

Lovaas, O. I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 3-9

Maurice, C. (1993). *Let me hear your voice. A family's triumph over autism*. New York: Knopf.

Maurice, C.R., Foxx, R.M., & Greene, G. (2001). *Making a difference: Behavioral intervention for children with autism*. Austin, TX: Pro-Ed.

Maurice, C., Green, G., & Luce, S.C. (1996). *Behavioral intervention for young children with autism – A manual for parents and professionals*. Austin, TX: Pro-Ed.

Michael, J. (1994). *Concepts and principles of behavior analysis*. Kalamazoo, MI: Society for the Advancement of Behavior Analysis.

Powers, M. (1989). *Children with autism: A parent's guide*. Bethesda, MD: Woodbine House.

Smith, T., & Lovaas, O. I. (1998). *Intensive and early behavioral intervention for autism: The UCLA Young Autism Project, Infants and Young Children*, 67-68.

Developmental Intervention Model (Floor Time)

Web Addresses

<http://www.stanleygreenspan.com>

LEAP

Resources

- Strain, P. S., & Cordisco, L. (1993). The LEAP preschool model: Description and outcomes. In S. Harris & J. Handleman (Eds.), *Preschool education programs for children with autism* (pp. 224-244). Austin, TX: Pro-Ed.
- Strain, P. S., & Kohler, F. W. (1998). Peer mediated social intervention for young children with autism. *Seminars in Speech and Language, 19*, 391-405.

SCERTS

Resources

- Prizant, B., Wetherby, A., Rubin, E., & Laurent, A. (in preparation). *THE SCERTS™ model manual: Enhancing communication and socioemotional abilities of young children with ASD*. Baltimore: Paul Brookes Publishing Company.
- Prizant, B. (2004). *Autism Spectrum Disorders and the SCERTS™ Model (Training Video Tapes)*. Port Chester, NY: National Professional Resources. (<http://www.nprinc.com>)

Web Addresses

<http://www.barryprizant.com>

TEACCH

Web Addresses

<http://www.teach.com>

Verbal Behavior

Web Addresses

<http://www.behavioranalysts.com>

<http://www.dr-carbone.net>

Strategies

Assistive Technology

Resources

- Chambers, A.C. (1997). *Has technology been considered? A guide for IEP teams*. Albuquerque: CASE/TAM.

Web Addresses

Assistive Technology Alliance

<http://www.ataccess.org>

New England Assistive Technology Marketplace

<http://www.neatmarketplace.org>

Quality Indicators in Assistive Technology

<http://www.qiat.org>

Wisconsin Assistive Technology Initiative

<http://www.wati.org>

Augmentative Alternative Communication

Resources

Beukelman, D., & Mirenda, P. (1998). *Augmentative and alternative communication: Management of severe communication disorders in children and adults*. Baltimore: Paul H. Brookes Publishing Co.

Web Addresses

AAC Institute <http://www.aac institute.org>
AAC Intervention <http://www.aacintervention.com>
AAC Links <http://aac.unl.edu>
Amer. Speech/Language/Hearing Assoc. <http://www.asha.org>
Int. Society for AAC (ISAAC) <http://www.Isaac-online.org>
YAACK: AAC Resource Guide <http://aac.unl.edu/yaack/toc.html>

Person-Centered Planning

Resources

Amado, A.N. & McBride, M. (2001). *Training Person-Centered Planning Facilitators: A Compendium of Ideas*. Minneapolis, MN: University of Minnesota, Institute on community integration.

Beeman, P., Kehrhahn, M., & Pancsofar, E. (1994). *Building the foundation for person-directed supports*. Manchester, CT: Communitas, Inc.

Mount, B. (1995). *Capacity works: Finding windows for change using personal futures planning*. Manchester, CT: Communitas, Inc.

Pearpoint, J., O'Brien, J., & Forest, M. (1994). *PATH: A workbook for planning positive possible futures*. Toronto: Inclusion Press.

Smull, M., & Harrison, S. (1992). *Supporting people with severe reputations in the community*. Alexandria, VA: NASMRPD.

Web Addresses

<http://www.inclusion.com>

Picture Exchange Communication System

Resources

Beukelman, D., & Mirenda, P. (1998). *Augmentative and alternative communication: Management of severe communication disorders in children and adults*. Baltimore: Paul H. Brookes Publishing Company.

Ganz, J., & Simpson, R. (2004). Effects on communicative requesting and speech development of the Picture Exchange Communication System in children with characteristics of autism. *Journal of Autism and Developmental Disabilities*, 34, 395-409.

Magiati, I., & Howlin P. (2003). A pilot evaluation study of the Picture Exchange Communication System (PECS) for children with autistic spectrum disorders, *The International Journal of Autism*, 7.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- Kravits, T.R., Kamps, D.M., & Kemmerer, K. (2002). Brief report: Increasing communication skills for an elementary-aged student with autism using the picture exchange communication system. *Journal of Autism and Developmental Disorders*, 32, 225-230.
- Mirenda, P. (2003). Toward functional augmentative and alternative communication for students with autism: Manual signs, graphic symbols, and voice output communication aids. *Language, Speech, and Hearing Services in Schools*, 34, 203-216.

Web Addresses

<http://www.pecs.com>

Pivotal Response Training

Resources

- Koegel, R. I., Schreffirnan, L., Good, A., Cerniglia, L., Murphy, C., & Koegel, L. K. (n.d.). *How to teach pivotal behaviors to children with autism: A training manual*. Retrieved March 9, 2005. from www.users.qwest.net/~tbharris/prt.htm.

Web Addresses

<http://www.users.qwest.net/~tbharris/prt.htm>

Positive Behavioral Intervention and Support

Resources

- Crone, D.A., & Horner, R.H., and Hawken, L.S. (2004). *Responding to problem behavior in schools: The behavior education program*. New York: The Guilford Press.
- Crone, D.A., & Horner, R.H. (2003). *Building positive behavior support systems in schools: Functional behavior assessment*. New York: The Guilford Press.
- O'Neill, R.E., Horner, R.H., Albin, R.W., Sprague, J.R., Storey, K., & Newton, J.S. (1997). *Functional assessment and program development for problem behavior (2nd ed.)*. Pacific Grove, CA: Brooks/Coles Publishing Company.

Web Addresses

<http://www.pbis.org>

<http://flpbs.fmhi.usf.edu>

<http://www.pbis.ctserc.co>

Relationship Development Intervention

Resources

- Gutstein, S.E. (in press). Preliminary evaluation of the relationship development intervention program. *The Journal of Autism and Developmental Disorders*.
- Gutstein, S. E., & Sheely, R. K. (2002). *Autism/Asperger's: Solving the relationship puzzle. A new developmental program that opens the door to lifelong social and emotional growth*. London: Jessica Kingsley Publishers.
- Gutstein, S. E., & Sheely, R. K. (2002). *The relationship development intervention with young children: Social and emotional development activities for Asperger syndrome, autism and PDD and NLD*. London: Jessica Kingsley.

Web Addresses

<http://www.rdiconnect.com>

Sensory Integration

Resources

Kranowitz, C.S., Szklut, S., Balzer-Martin, L., Elizabeth Haber, E., & Sava, D.I. (2001). *Answers to questions teachers ask about sensory integration*. Las Vegas, NV: Sensory Resources LLC.

Web Addresses

Association for Science in Autism Treatment: Description of Sensory Integration

http://www.asaonline.org/about_autism/autism_info12.html

Sensory Integration Network <http://www.sinetwork.org>

Social Strategies

Resources

Freeman, S. (1996). *Teach me language*. Langley, B.C., Canada: SKF Books.

Gray, C. (2000). *The new social stories book*. Arlington, TX: Future Horizons.

McAfee J. (2001). *Navigating the social world*. Arlington, TX: Future Horizons.

Myles, B. S. (1999). *Asperger Syndrome and difficult moments. Practical solutions for tantrums, rage, and meltdowns*. KS: Autism Asperger Publishing Co.

Appendix IV-B Comparative Resources

- Heflin, L. J., & Simpson, R. L. (1998). Interventions for children and youth with autism: Prudent choices in a world of exaggerated claims and empty promises. Part I: Intervention and treatment option review. *Focus on Autism and Other Developmental Disabilities, 13*(4), 194-211.
- Heflin, L. J., & Simpson, R. L. (1998). Interventions for children and youth with autism: Prudent choices in a world of exaggerated claims and empty promises. Part II: Legal/Policy analysis and recommendations for selecting interventions and treatments. *Focus on Autism and other Developmental Disabilities, 13*(4), 212-220.
- Iovannone, R., Dunlap, G., Huber, H., & Kincaid, D. (2003). Effective educational practices for students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 18*(3).
- Journal of the Association for Persons with Severe Handicaps*. Special Series on Interventions for Young Children with Autism. Fall 1999. Volume 24, Number 3.
- Richard, G. J. (2000). *The source for treatment methodologies in autism*. East Moline, IL: LinguiSystems.
- Simpson, R. L. (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. Thousand Oaks, CA: Corwin Press.

Appendix IV-C Research Resources

- Exceptional Children [Special issue]. (2005, Winter). *Criteria for evidence-based practice in special education*. Volume 71, Number 2.
- Organization for Autism Research (OAR). (2003). *Life journey through autism: A parent's guide to research*. Arlington, VA: Author.
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. (2003, December). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide*. Washington, DC: Author.

Appendix IV-D

Finding Education and Research Information in Academic Libraries

A wide variety of scholarly, professional, and popular resources and Web sites are useful for locating research and professional information about educational interventions and related issues.

Academic libraries,* and some public libraries, subscribe to electronic resources that contain scholarly information. Databases such as ERIC (provided by the Department of Education) and PsycInfo (provided by the American Psychological Association) are examples of resources that contain bibliographic references and, in some instances, full-text information about education and psychological issues related to teaching and learning.

ERIC

The Education Resource Information Center (ERIC) is the premier research database in education. According to the ERIC website, “ERIC is a national information system funded by the U.S. Department of Education's Institute of Education Sciences to provide access to education literature and resources. The database contains citations to journal articles as well as references to non-journal information such as research reports, curriculum guides, and information digests. Database operations are currently under revision. However, the ERIC database is currently available to the public for free searching via the link at: <http://www.eric.ed.gov/searchdb/index.html>. For details and more information go to <http://www.eric.ed.gov>.

PsycInfo

PsycInfo, the American Psychological Association's database, contains over 1.5 million records, and is the comprehensive international database of psychology. It covers the academic, research, and practice literature in psychology from over 45 countries in more than 30 languages. PsycINFO includes relevant materials from related disciplines such as medicine, psychiatry, education, social work, law, criminology, social science, and organizational behavior. It is an essential tool for researchers, practitioners, and students in psychology and related disciplines. PsycINFO provides access to journal articles, dissertations, book chapters, books, technical reports, and other documents from 1887 to the present. This database is available by subscription only and may be available locally at college and university libraries.*

General Academic Databases

InfoTrac and WilsonWeb are general academic databases that provide access to research and professional literature, as well as popular information. These databases, available via many academic and public libraries, provide information, much of it is full text, from a wide variety of sources such as scholarly and professional journals, newspapers, and magazines.

* Some college and university libraries may restrict on-site use of research databases to outside users. Check with library staff before accessing these databases. Access to research databases from remote sites (home or office) is generally restricted by the vendor's contractual agreement to faculty and currently enrolled students.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

InfoTrac is also available to public library users and schools via the iConn Digital Library. IConn "... is part of the Connecticut Education Network. It provides all students, faculty and residents with online access to essential library and information resources. It is administered by the Connecticut State Library in conjunction with the Department of Higher Education. Through iConn, a core level of information resources including secured access to licensed databases is available to every citizen in Connecticut. In addition, specialized research information is available to college students and faculty" (retrieved March 10, 2005 from <http://www2.iconn.org/PressRelease0202.aspx>). To learn more about this resource go to: <http://www.cslib.org/iconn.htm>.

Note. Appendix IV-D was prepared specifically for this report by Francine M. DeFranco, Director for Collections Services and Liaison to the Neag School of Education, The University of Connecticut Libraries, Storrs, CT 06269. francine.defranco@uconn.edu.

CHAPTER V

Transitions and Transition Planning

Children with ASD progress through the same developmental stages as all other children, and are expected to adapt to a variety of changes within the educational system (changes in teachers, classmates, schedules, buildings, grade levels, etc.) and beyond (from school to the work force, etc.). The transitions between these stages, that is, the adjustment that must be made to different environments and expectations of society, can be extremely challenging for individuals with ASD due to their innate preference for sameness and routine.

Careful planning and preparation can facilitate smooth transitions, which will help individuals with ASD to participate fully in society. Because of the unique challenges with transitions that many students with ASD experience, it is often essential to begin to plan transitions further in advance than is typically done for other students with disabilities. Besides, the steps in transitions should be small. Transitions should not be restricted to one program, but should be driven by individual needs and requirements to maintain a high quality of life, whatever the developmental stage. An individual timeline for the transition process needs to be developed.

Children with ASD make major transitions at specific, predictable times throughout their schooling. The major of these include:

- ✧ For children who receive Birth to Three services, there is a transition to the public school system at the age of 3;
- ✧ Within the public school system, major program and program location transitions take place from elementary to middle, middle to high school and from high school to postsecondary services.

Each stage and the adjoining transitions present unique circumstances and challenges to individual students, families, and school staff. Other transitions in school also greatly impact students and families such as the transition from grade to grade, from teacher (or paraprofessional) to teacher (or paraprofessional), and from setting to setting (e.g., classroom, cafeteria, bus, classmates and playground). As part of their education, all children are encouraged to participate in extracurricular activities, and school districts are required by the state to report participation rates for children with special needs.

This section primarily addresses the transitions from school to school. The discussion also draws a distinction between and explores both planning for transitions from school to school and the “transition planning process” as required as part of the IDEA requirements for young children prior to the age of 3 and the for young adults following their 15th birthday (beginning July 1, 2005).

From Connecticut Birth to Three System to Preschool Special Education

A child’s transition from the Connecticut Birth to Three System to special education services provided by the public schools can be challenging, as the focus shifts from a home-based early intervention model designed to help families support the developmental needs of their child to an instructional program focused on the child and his/her development in an educational setting.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Helping parents to understand this shift in focus is a crucial part of transition planning at this stage. For young children with ASD, change can be particularly difficult, and careful transition planning is essential in helping to reduce anxiety for both the child and their family in order to ensure a successful start to a child and family's educational experience.

In Connecticut, school districts are responsible for providing special education and related services to eligible children no later than the child's third birthday. In order to be eligible for special education a child must fall within one of the designated special education disability categories.

When a child is referred by the Connecticut Birth to Three System to a school district, IDEA 2004 guides transition activities in both Part C and Part B of the law:

✧ IDEA, Part C, § 637(9)(A)(i)(I-II)

(A) ... including a description of how:

- i. the families of such toddlers will be included in the transition plans required under subparagraph (C); and
- ii. the lead agency designated or established under section 635(a)(10) (Connecticut Birth to Three System) will –
 - (I) notify the local educational agency (school district) for the area in which such a child resides that the child will shortly reach the age of eligibility for preschool services under part B (special education), as determined in accordance with state law.
 - (II) in the case of a child who may be eligible for such preschool services, with the approval of the family of the child, convene a conference among the lead agency (Connecticut Birth to Three System) the family, and the local educational agency (school district) not less than 90 days (and at the discretion of all such parties, not more than 9 months) before the child is eligible for the preschool services, to discuss any such services that the child may receive; and ...

✧ IDEA, Part B, § 612(9)

(9) TRANSITION FROM PART C TO PRESCHOOL PROGRAMS – Children participating in early intervention programs assisted under part C, and who will participate in preschool programs assisted under this part (special education), experience a smooth and effective transition to those preschool programs in a manner consistent with section 637(a)(9). By the third birthday of a child, an individualized education program or, if consistent with sections 614(d)(2)(b) and 636(d), an individualized family service plan, has been developed and is being implemented for the child. The local educational agency (school district) will participate in transition planning conferences arranged by the designated lead agency (Connecticut Birth to Three System) ...

The IDEA 2004 reauthorization places a greater emphasis than past legislation on a seamless service system, recognizing a smooth transition is vital to a child's school success. The intent is that during the child's initial IEP meeting, the types of services the child received in Part C as part of the IFSP are discussed and considered. Special education services may change in frequency, duration, and environment, and the expectation is that such changes should be explained at the child's IEP meeting.

In order to facilitate as smooth a transition as possible, the transition planning conference must be held and a transition plan must be developed as early 9 months before, but no later than

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

90 days before, a child's third birthday. For children with ASD early transition planning with the child's early intervention providers and the child's family is a critical first step. The transition meeting is convened by the child's early intervention providers and must include the participation of school district personnel. The transition meeting may include:

- ✧ Sharing of relevant information about the child, including developmental levels, current programming and services and supports being provided, as well as any other pertinent information (e.g., prior evaluations) that can be made available by the Connecticut Birth to Three System.
- ✧ Identification of supports that are needed to prepare the child for the transition to the public school program. Such supports may include a period of combined and/or jointly delivered services provided by personnel from the Connecticut Birth to Three System and the school district if deemed necessary.
- ✧ Provision of information, on how eligibility for special education will be determined by the school district and the IEP process in general.
- ✧ Identification of parent supports and information necessary to facilitate transition to the child's new program and personnel. This may include discussion about the similarities and differences between the Connecticut Birth to Three System and special education.
- ✧ Providing parents written information about their rights under the IDEA prior to and at the child's first PPT meeting.

(Additional information on the Connecticut Birth to Three System may be found at www.birth23.org.)

Following the child's transition planning conference the school district is required to schedule a PPT meeting to discuss the referral from the Connecticut Birth to Three System, determine if an evaluation is necessary to gather additional information, determine the child's eligibility for special education and related services and, if eligible, plan an appropriate program for the child. Being found eligible for the Connecticut Birth to Three System does not mean that a child will be eligible for special education and related services. That decision is made by the child's PPT based upon an individual evaluation that determines that the child has a disability and, therefore, requires special education and related services. The PPT may use an evaluation conducted by the child's Birth to Three providers to determine the child's eligibility under Part B of IDEA if the evaluation was recent and comprehensive. In order to ensure that no interruption in services occurs, all school district activities must occur such that a child's eligibility and IEP are in place by the child's third birthday. More than one PPT meeting may be necessary to accomplish this.

At PPT meetings, the child's school team and early intervention providers should engage in the following activities:

- ✧ discuss the child's referral to special education
- ✧ review the child's present levels of functioning
- ✧ review relevant information provided by the child's Birth to Three provider(s), such as previous and current evaluations, previous and current goals and objectives, etc., in order

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

to determine if additional evaluations are necessary and, if so, obtain written parental consent to conduct the evaluations

- ✧ conduct and/or review evaluations as required to determine a child's eligibility for special education and related services
- ✧ determine a child's eligibility for special education and related services
- ✧ if a child is determined eligible for special education and related services, develop the child's IEP by identifying the child's goals and benchmarks, and the services to be provided, and identifying the program components and the hours of service and personnel
- ✧ plan continued transition activities as appropriate to assist the child and family in moving from one service system to another (e.g., teacher may visit home, parent/child may visit the classroom, teacher may join an early intervention visit, and other activities appropriate to the individual needs of the child as suggested by the child's family)

Transition into Preschool Special Education

When a young child has not been receiving services through the Connecticut Birth to Three System and a referral is being made to the child's school district, the following is recommended.

1. The referral source (parent, pediatrician, etc.) contacts the child find coordinator or the director of special education in the child's school district.
2. The school district contacts the family, discusses the referral, and schedules and convenes a PPT meeting if appropriate.
3. If the PPT recommends an evaluation, an evaluation is conducted, and a PPT reconvenes to discuss the evaluation results and determines if the child is eligible for special education and related services.
4. If the PPT determines that a child is eligible for special education and related services, the team develops an IEP. The school district must complete the evaluation, determination of eligibility and development and implementation of a child's IEP within 45 school days of the referral.
5. If a child is referred to the school district prior to age three and the parents opt not to be referred to the Connecticut Birth to Three System, the school district will need to pursue identification, location, and evaluation activities for children under age three for the purpose of determining whether a child will be eligible for special education at age three. Evaluation activities should be taking place that assure that special education is available by the child's third birthday. (Synodi, 2005)

Transition from Elementary to Middle/Intermediate and Middle/Intermediate to High School

The unique social, communication and behavioral problems that are associated with autism make transition from school location to school location difficult. These include severe language deficits, difficulty establishing and maintaining relationships with others, atypical responses to the environment, abnormal responses to sensory stimuli, difficulty adjusting to change, and behavior problems such as aggression and self-injury. Systematic and advanced transition planning should begin as much as one year prior to an anticipated move and include the development of specific transition goals as part of the IEP.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

In planning for the transitions from school to school, the following areas should be considered by the PPT:

1. Identification of specific accommodations necessary to assist the student in transitioning to a new building (e.g. peer assistants, frequent trips to the receiving school to familiarize the student with the location of the classrooms, student meeting with new teachers prior to the beginning of the school year, visual organizers, picture schedules, etc.).
2. Sharing of information between present and future programs. The teams should schedule planning meetings to address the positive behavioral supports and expectations the student may need in order to be successful in the new setting.
3. Accommodations and supports necessary for the student to successfully participate in the broader school community. The student should be encouraged to participate in activities that he may be interested in or might develop an interest in.
4. Facilitation of social interaction and friendships. The team should consider school environments that naturally lend themselves to social interactions such as lunchtime, cooperative school projects, and sports activities. School districts may need to identify alternative communication systems that facilitate effective communication with peer groups. This is particularly important as the student now has to interact with an expanded team that may include more than one teacher, speech-language pathologist, physical therapist, paraprofessional, occupational therapist, special education teacher, etc.

Delivering services to the student in the LRE will facilitate the transition to later adult life. Consideration should be given to supporting students' participation in after-school and extracurricular activities, which affords the opportunity for students to establish relationships with persons other than parents and professionals. Through these relationships students become viewed as valued members of the school and community, rather than as special education students. Established and routine contact in the school with peers in both academic and social settings promotes integration and valued membership in community and adult life.

(Appendix VI-A includes topics that may be considered when planning for transitions.)

15 to 21 Years and Beyond

One of the most challenging times for students with ASD and their families is when the young adult must transition from a setting with federally mandated services through the public school to adult services. Questions about postsecondary education, vocational training, and employment and residential options must be addressed ([www.autism-society.org/Life after High School](http://www.autism-society.org/Life%20after%20High%20School))

While entitlement to public special education ends at the school year in which the student turns 21, or when a student receives a *regular education* diploma, IDEA 2004 requires "... beginning not later than the first IEP to be in effect when the child turns 16, and updated annually thereafter – appropriate measurable postsecondary goals based upon age-appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills" (IDEA 2004 § 614 (d)(1)(A)(vii)(aa)). For students with the most significant disabilities (typically those students who take the alternative state assessment), benchmarks and short-term objectives for each postsecondary goal must be developed.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Transition planning should involve the student, parents, and members of the PPT to work together to help the student make decisions about his/her path. This includes involving the student to participate in the PPT at age 15. The school district is required to facilitate the transition planning process. A student receiving special education services in public schools should have regular meetings with family and school staff to address the student's IEP. Once a student is in high school, PPTs must plan for the transition from high school to adult life. ([www.autism-society.org/Life after High School](http://www.autism-society.org/Life%20after%20High%20School))

Connecticut's Transition Training Manual & Resource Directory, developed by the CT Interagency Transition Task Force, is a valuable resource for information and quality programming with regard to transition planning. [As of July 2011, the task force is developing an updated transition manual. The previously published directory, dated September 2004, is posted online at http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Transition_Manual.pdf (As of July 2011)].

Individuals with Disabilities Education Act (IDEA) and Transition Services

IDEA 2004 defines “transition services” as a coordinated set of activities for a child with a disability that is designed to be within a results-oriented process, focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including:

- ✧ postsecondary education
- ✧ vocational education
- ✧ integrated employment (including supported employment)
- ✧ continuing and adult education
- ✧ adult services
- ✧ independent living, or
- ✧ community participation

The coordinated set of activities developed for the individual student must be based on his or her needs, taking into account strengths, preferences and interests, and including needed activities in the areas of:

- ✧ instruction
- ✧ related services
- ✧ community experiences
- ✧ the development of employment and other post-school adult living objectives, and
- ✧ acquisition of daily living skills and function vocational evaluation

It is important that families and schools start planning early to ease the transition and thereby increase the likelihood of success and independence in adult life ([www.autism-society.org/ Life after High School](http://www.autism-society.org/Life%20after%20High%20School)).

Quality transition planning:

- ✧ guides the development of the IEP and focuses on the dreams, preferences and strengths of student
- ✧ is an outcome-oriented process focused on independent living, employment/postsecondary planning and community participation

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- ✧ is student-centered
- ✧ is a coordinated effort relying on services within and outside the school setting (i.e. interagency linkages)
(www.transitioncoalition.org/bestpractices)

Students who have fulfilled academic requirements for graduation, yet may not have met their IEP transition goals and continue to need further support, may be eligible to participate in additional educational programming. A decision to consider additional educational programming should be reviewed annually up until age 21 and based on an individual student's development in the following skill areas that facilitate a successful transition:

- ✧ self-advocacy skills
- ✧ social skills
- ✧ vocational skills
- ✧ community skills
- ✧ independent living skills
- ✧ leisure and recreational skills

Participation in High School Graduation Ceremonies and Related Activities

Both state and federal laws are clear about the awarding of a high school diploma. The following represent pertinent sections from state and federal statute/regulations in that regard.

- ✧ The LEA [local education agency] is not obligated to make a free and appropriate public education (FAPE) available to students who have graduated from high school with a regular education diploma (34 C.F.R. § 300.122 (a) (3) (i)).
- ✧ Graduation from high school with a regular diploma constitutes a change in placement, therefore requiring written prior notice (34 C.F.R. § 300.122 (a) (3) (iii)).
- ✧ If students are not awarded a regular high school diploma, they maintain their eligibility for special education services until they age out or they receive a regular education diploma. If students have not received a regular high school diploma, Connecticut General Statutes (CGS), § 10-76d-1 (a) (7), states that students continue to be eligible for special education and related services until the end of the school year that the student turns twenty-one (21) years of age.
- ✧ All requirements of CGS § 10-221 (High School Graduation Requirements) apply to any student requiring special education pursuant to CGS § 10-76a, except when the PPT for such student determines the requirements not to be appropriate.

(Dowaliby, 2000)

Both state and federal law is silent on the specific issue of allowing students to participate in graduation ceremonies and related activities when they are not receiving a regular education diploma.

The Connecticut State Department of Education Bureau of Special Education hold the following position on the graduation issue:

- ✧ The state requirements for graduation or the awarding of a diploma are the successful completion of certain credit requirements, per Section 10-221(a) of the Connecticut General Statutes. Each district may also have adopted the successful completion of

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- certain credit requirements as a prerequisite for earning a diploma or graduating from its high school program.
- ✧ The Planning and Placement Team (PPT), pursuant to the authority granted it under Section 10-221(a), may modify the state requirements for students with disabilities when the PPT determines such requirements are not appropriate for an individual student.
 - ✧ Discussion surrounding these requirements and the anticipated date of graduation should be discussed with the parent and/or student, as may be appropriate, well in advance of the graduation date.
 - ✧ Likewise, participation in graduation ceremonies and related activities is a decision to be made by the PPT and should be discussed well before a student is planning on graduating. This decision should be based on the individual needs of each student and the social and emotional importance of allowing a student to participate in graduation ceremonies with age appropriate peers.

(Dowaliby, 2000)

While the Bureau cannot mandate a district to allow participation in graduation ceremonies without the awarding of a diploma, both federal and state law indicates that this would be allowable, and in many instances may be in the best interest for some students.

The Bureau recommends that each LEA establish a policy statement regarding the circumstances under which students might participate in graduation ceremonies, not receive a high school diploma and, therefore still maintain their eligibility for special education and related services (Dowaliby, 2000).

Characteristics of Effective Transition Planning

The transition from school to the adult world is often a maze of misinformation, limited opportunities, insufficient resources, and inappropriate, time-limited services. Despite these barriers, persons with autism continue to grow and develop in adulthood and when provided opportunities and supports, increase their skills and abilities.

Until relatively recently, the vast majority of literature on autism focused on children and explored such topics as causes of autism, therapeutic interventions, training and educational programs, and implications for families. In contrast, there is remarkably little written about outcomes in adulthood (Howlin, 1997). However, information does exist from studies of children as they reach adolescence and adulthood, which may help to allay some anxieties and can help families plan more effectively for the future. Findings, although variable due to a number of factors (e.g., cost of long-term research, small numbers in study, and different types of questions), do provide important information useful in improving outcomes for the future (Howlin, 1997).

Effective transition planning can arm students and their families with information and skills that will help them cope with the issues and challenges of adulthood. The outcomes for people with ASD are extremely variable, ranging from educational and residential accommodation to more independent functioning (e.g., university, jobs, and marriage) (Howlin, 1997).

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Common issues and recommended strategies include the following.

ISSUES	DESIRED OUTCOMES	STRATEGIES
* Availability of post-21 (post-IDEA) funding/waiting list for post graduation services	<ul style="list-style-type: none"> ◆ Agencies identified and contacted by age 16 ◆ Sufficient funds to support identified needs 	<ul style="list-style-type: none"> ◆ Collaborate with an adult service agencies ◆ Develop a statewide interagency transition committee ◆ Contact state legislators for increased funding sources
* Poor employment outcomes/retention issues	<ul style="list-style-type: none"> ◆ Comprehensive assessment, job development and job matching to promote movement toward successful employment comparable to nondisabled youth 	<ul style="list-style-type: none"> ◆ Implement at the secondary level a continuum of community-based career exploration and job skills training. ◆ Conduct social skills training ◆ Implement behavior management programs ◆ Train support personnel in how to work with individuals with ASD
Ψ Lack of self-drive and initiative	<ul style="list-style-type: none"> ◆ Fostering self-drive and initiative to achieve at the student's highest level of potential 	<ul style="list-style-type: none"> ◆ Push for action, achievement and success ◆ Provide opportunity/direction to utilize gifts and capitalize on the interests ◆ Build choice and decision-making via exposure and experience
* Lack of individualized services and supports that acknowledge the diversity within individuals with ASD	<ul style="list-style-type: none"> ◆ Provision of appropriate individual support ◆ Training of providers in the field of ASD 	<ul style="list-style-type: none"> ◆ Conduct individualized assessment and transition planning ◆ Develop annual plan that is truly individualized
* Lack of active parental involvement in transition planning	<ul style="list-style-type: none"> ◆ Increased parental involvement and advocacy in interagency cooperative planning 	<ul style="list-style-type: none"> ◆ Provide parents with written information about the transition process ◆ Encourage active participation at PPT meeting ◆ Conduct parent training on transition planning ◆ Increase home-school communication via a communication log book, phone contacts, etc. ◆ Implement person-centered planning

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

ISSUES	DESIRED OUTCOMES	STRATEGIES
Ω Need for lifelong supports	<ul style="list-style-type: none"> ◆ Access to the necessary lifelong supports 	<ul style="list-style-type: none"> ◆ Investigate adult services, agency supports ◆ Investigate eligibility for government benefits (e.g., Social Security benefits) ◆ Investigate estate planning/ guardianship
<ul style="list-style-type: none"> ● Disclosure and accommodations 	<ul style="list-style-type: none"> ◆ Fostering self-advocacy skills 	<ul style="list-style-type: none"> ◆ Develop knowledge of strengths and acceptance of needs for support ◆ Provide training related to disability rights ◆ Provide opportunities to practice communicating strengths and needs for support
Ψ Increased risk factors for psychiatric disturbances	<ul style="list-style-type: none"> ◆ Early detection, vigilance, and provision of treatment 	<ul style="list-style-type: none"> ◆ Educate service providers and families regarding early warning signs and risk factors ◆ Offer counseling services
φ Legal issues	<ul style="list-style-type: none"> ◆ Compliance with social/legal expectations of the community 	<ul style="list-style-type: none"> ◆ Establish consistent rules of behavior ◆ Provide social skills training ◆ Communicate with law enforcement community, as appropriate
Lack of social relationships	<ul style="list-style-type: none"> ◆ Forming social relationships with peers 	<ul style="list-style-type: none"> ◆ Identify school environments that naturally lend themselves to times when teenagers interact ◆ Ensure student has necessary communication devices ◆ Seek student peer buddies
φ Sexual issues	<ul style="list-style-type: none"> ◆ Healthy relationships and appropriate sexual conduct 	<ul style="list-style-type: none"> ◆ Foster self-awareness ◆ Provide sex and relationship education
Social issues	<ul style="list-style-type: none"> ◆ Social peers ◆ Variety of satisfying recreational and leisure options 	<ul style="list-style-type: none"> ◆ Identify interests and community groups appropriate to those interests ◆ Teach social skills as needed

* (Gerhardt & Holmes, 1997, p. 650)

Ψ (Howlin, 1997, pp. 217-235, p. 257)

φ (Basche & Kirby, 2001, pp. 420-424)

Ω (Powers, 2000, p. 41)

● (Ozonoff, Dawson, & McPartlanad, 2002, p. 221)

Family Involvement in Planning for the Future

Families of individuals with disabilities need to plan for their child’s future as do any parents. Agencies may not provide all the supports and services parents desire for their adult son/daughter with ASD. Planning and making decisions for persons with disabilities regarding school, training, independent living, and leisure and recreation is easier with the support of family, friends, and professionals. Much of what is discussed in this section relates to young adults who may need lifelong support. In addition to planning with school districts, families may need to plan independently for the future—financial and otherwise—as all needs may not be funded by schools or other agencies. Although agencies and school districts can support families with planning, the responsibility remains with the family. Person-centered planning is an ongoing, individual planning process that is designed to capture the individual’s dreams and desires and translate them into a plan of action.

Self-Determination

Self-determination is an approach to service delivery that supports people with disabilities in living the lives they desire. Self-determination helps people with disabilities, their families, and friends determine their future, design their own support plans, and choose the assistance they need to live full lives. “Self-determination can be defined as knowing oneself, one’s goals and how to achieve those goals” (Fullerton & Coyne, 1999, p. 42).

An individual who is self-determined acts from awareness of personal needs and preferences, sets goals and works toward them, creates solutions to problems, self-advocates, identifies needed supports and regularly evaluates and adjusts performance (Eisman & Chamberlin, 2001). Youth with ASD, who think differently and are challenged with regard to communication skills, require specific instruction about life planning and self-determination (Fullerton & Coyne, 1999).

When working with students to develop self-determination, the following should receive special attention:

- ✧ Self awareness/acceptance of one’s disability (i.e., strengths, weaknesses and needed accommodations)
 - ✧ Understanding one’s rights under disability law
 - ✧ Developing self-advocacy skills (assertive style of communication, describing accommodations, knowing when to disclose, etc.)
 - ✧ Goal setting and decision making
 - ✧ Career exploration
 - ✧ Participation in PPT meetings
- (Presbie, 2003, p. iii)

Person-Centered Planning

Person-centered planning is valuable for helping persons with a disability explore their dreams and visions and set goals for the future. Two of the many such models of person-centered planning include the following.

MAPS (McGill Action Planning System)—Through the MAPS process, a person with a disability, along with a circle of support (family members, friends, neighbors, employers, teachers, other professionals etc.), identifies his/her interests, strengths and weaknesses. Eight key questions are raised that are critical to the planning process. When addressed with honesty, these questions, as

well as creativity and a positive approach, lead to an action plan focused on satisfaction and accomplishment in many life activities.

PATH (Planning Alternative Tomorrows with Hope)—The PATH process also helps to identify dreams and goals for the future, action plans and timelines. Similar to MAPS, this model focuses on positive attributes and dreams for participation in work and community life.

Estate Planning

Parents of children with ASD must also attend to estate planning. Addressing such issues as cost of care liability, government benefits, competency concerns, life insurance, retirement plans, *intervivos*, also know as a living special needs trust, and planning a will are critical so that resources are not wasted. Proper estate planning differs for each family. Consulting with professionals experienced in estate planning (i.e., trusts, wills, and guardianship) is important to secure the future of a person with a disability (Powers, 2000).

Guardianship/Conservatorship

A guardian or conservator is an individual or organization named by order of the court to exercise any and all powers and rights over the person and/or estate of an individual. In Connecticut, when students turn 18, they are considered to be adults even if they have a disability. This means that rights formally belonging to parents now transfer to students. Therefore, unless rights have specifically been awarded by the court system to someone else, school districts are required to assign rights to students at age 18. If students are not able to make important legal, medical, or other decisions, they may need a legal guardian. Parents must file for guardianship if they wish to continue to maintain decision-making rights with their child. Good legal guardians include parents, brothers, sisters, other relatives or any other adult who cares about the person with a disability. Guardianship is determined in the probate court system (<http://www.jud.state.ct.us/probate>).

NOTE: As students with disabilities transition from school districts to adult service system, they move from a system of entitlement (school districts) to a system of eligibility (adult services). As a result, students and young adults with disabilities need to be determined eligible for services within the adult service system. Not all students and young adults with ASD will qualify for adult services. No single state agency responsible for providing adult services to people with autistic spectrum disorders. Also, even if students are determined eligible, adult services may not be available due to lack of funding.

Government Agencies

Agencies designed to provide support services to families and individuals with ASD may include the following:

Social Security Administration (<http://www.ssa.gov>)

Two federal programs are funded by the Social Security Administration.

- ✧ **Social Security Disability Income** (SSDI) may be paid to persons with disabilities whose disability has lasted or can be expected to last for a continuous period of not less than 12 months, or whose disability will result in death. Certain children, adult children with disabilities, and widows/widowers may be eligible to collect SSDI.
- ✧ **Supplemental Security Income** (SSI) is a federal income assistance program for people who are elderly, blind, and/or disabled. (Check the blue pages of your phone book under "Social Security Administration" for the local Social Security office.)

**Office of Protection and Advocacy for Persons with Disabilities,
State of Connecticut (860) 297-4300;**

<http://www.state.ct.us/opapd>

This is an independent state agency created to safeguard and advance the civil and human rights of people with disabilities in Connecticut.

Bureau of Rehabilitation Services, State of Connecticut (BRS) (860) 424-4844;

<http://www.brs.state.ct.us>

This agency began a merger with the newly created Bureau of Rehabilitative Services in July 2011. A part of the State Department of Social Services, BRS oversees the following programs, which may help some individuals with autism:

- ✧ **Vocational Rehabilitation**, helps individuals with physical and mental disabilities prepare for, obtain, and maintain employment.
- ✧ **Independent Living** supports a statewide network of community-based, consumer-controlled centers for independent living that provide services to assist persons with disabilities to live more independently.
- ✧ **Connecticut Tech Act Project** assists all citizens with disabilities in gaining access to necessary assistive technology.

Department of Developmental Services, State of Connecticut (DDS) (860) 418-6000;

<http://www.ct.gov/dds>

DDS (formerly the Department of Mental Retardation) has a Division of Autism Services. DDS provides comprehensive case management; early intervention for infants and toddlers; community-based residential programs; supported living for people in their own residences; job training and supported employment; respite and other family support; and rehabilitative day programs. All services are subject to the availability of resources and may require a waiting period. Services and referrals to community resources are available through three regions.

**Department of Mental Health and Addiction Services,
State of Connecticut (DMHAS) (860) 418-7000;**

<http://www.dmhas.state.ct.us/>

DMHAS promotes and administers comprehensive, recovery-oriented services in the areas of mental health treatment and substance abuse prevention and treatment throughout Connecticut. Its mandate is to serve adults (over 18 years of age) with psychiatric or substance use disorders, or both, who lack the financial means to obtain such services on their own (see DMHAS eligibility criteria).

Employment and Day Services

Agencies that you may provide employment or day supports include the Department of Social Services, Bureau of Rehabilitation Services (BRS) (which began merging with new Department of Rehabilitative Services in July 2011) and the Department of Developmental Services (DDS). To receive services, eligibility criteria must be met. Supports are provided within the available resources of the agency. Families must begin planning (including financially) to supplement supports and services not available by schools or other agencies. Employment opportunities may include competitive employment, supported or sheltered employment, day support programs or vocational training.

Competitive Employment

Some people who with ASD find jobs through typical means. That is, they answer ads and ask friends and family to help them put an application into the local employer. They work in their communities at jobs suited to their personal preferences, capabilities, and needs (contact DMR/BRS for information).

Supported Employment

Supported employment is a job option for people with disabilities who require assistance in order to be gainfully employed. A job coach works side by side with the person and trains him/her. As the worker's skills increase, the job coach does less of the actual job. People who work in supported employment situations may hold individual jobs or may work as part of a group. In each instance, a person in a supported employment job works in a regular place of employment such as a factory, store, hotel, restaurant, or hospital where there are other employees who do not have disabilities (contact DDS/BRS for information).

Sheltered Employment

Sheltered workshops are settings where people with disabilities work in production-line fashion on projects that the workshop contracts to perform. This type of setting is intended for those with more severe impairments (contact DDS for information).

Day Support Options

Located at many provider agencies, day support programs arrange trips to natural settings in the community—stores, libraries, community centers, restaurants, theaters, and recreational facilities—where other people typically go to enjoy community events and activities. These settings

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

increase participants' opportunities to interact and develop relationships with other people in their communities.

The kinds of activities include a variety of community experiences and opportunities such as volunteer work, sports and exercise, recreational events, membership in clubs and organizations, and other activities that allow participants to experience and enjoy adult recreation and leisure activities in the community. For people who require therapeutic services and support, specialized services and therapies are provided (contact DDS for information).

Vocational Training

The Bureau of Rehabilitation Services (BRS) in the Department of Social Services provides vocational evaluation, training, and other supports to people with disabilities so that they can learn skills, get jobs, earn paychecks, and experience self-respect. These programs include individualized job training, placement, and limited follow-up as people move into the community and the working world. People with severe disabilities get special help. To find the district office nearest you, look in the blue pages of your telephone book under State of Connecticut, Department of Social Services Rehabilitation Services, <http://www.ct.gov/brs>. (In July 2011, BRS began merging with the newly created Bureau of Rehabilitative Services. Check the website for updates.)

Residential Services

Centers for Independent Living

Centers for Independent Living, often referred to as CILs, are places of action and coalition that promote empowerment and self-reliance for persons with disabilities (<http://www.vadrs.org/cbs/cils.htm>). They receive funding from a variety of sources such as the federal Department of Education, the U.S. Department of Justice, the Connecticut Association of Centers for Independent Living (CACIL), the State of Connecticut, Department of Social Services/BRS (state funds; not federal), the National Institute on Disability Research and Dissemination, the Connecticut Council on Developmental Disabilities, Corporate and Foundation grants, and membership dues and individual contributions.

There are currently five CILs in Connecticut (Contact INFOLINE 211 for more information). Each is community-based, nonresidential, and controlled and directed by people with disabilities. CILs are cross-disability, that is, they provide advocacy and services to all people with disabilities regardless of the nature or type. The four core services provided by a CIL include: peer support, information and referral, individual and systems advocacy, and independent living skills training. CILs help with issues arising from IDEA, ADA, and Section 504, and advocate with students and their families at PPTs to develop educational and vocational transition plans. They also advocate at local, state and federal levels to change policies and laws that inhibit the self-autonomy of people with disabilities.

Frequently Asked Questions

1. Can a Birth to Three provider continue to provide services as part of my child's IEP?

The school district is required to provide an IEP delivered by qualified personnel. The local school district is under no obligation to hire the Birth to Three provider as part of the child's IEP. The Birth to Three provider is under no obligation to contract with the school district, even if the district would like to do so.

2. If a particular intervention methodology was used by the Birth to Three provider, is the school district obligated to use the same?

The district is required to provide an appropriate educational program to meet the individual needs of the child. The methodology selected to implement the IEP may or may not be the same as the one used by the Birth to Three provider. However, the PPT should consider the success of the methodology used by Birth to Three provider when developing the IEP.

3. If a student is going to continue to receive special education and related services past 18 years of age or after his class graduates, can he/she participate in graduation ceremonies at age 18 with his/her classmates?

Students who will not receive a regular education diploma at the time their class graduates can participate in graduation ceremonies. The State Department of Education's (SDE) position regarding graduation participation is as follows: Participation in graduation ceremonies and related activities is a decision to be made by the PPT and should be discussed carefully before a student is planning on graduating. While the SDE cannot require a district to allow participation in graduation ceremonies without awarding a diploma, both federal and state law indicates that this would be allowable, and in many instances may be in the best interest for some students.

4. If students have completed the required academics as identified in the IEP, must they graduate and exit special education?

If students have completed their academic requirements, but have not met the transition goals (self-help, social, community participation, etc.), they may continue to receive special education services up to age 21 as determined by the PPT provided they do not receive a regular education diploma. Once students receive a regular education diploma, they are no longer eligible for special education services.

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

- 5. Are school districts required to find jobs that follow the young adult into the community following age 21 or completion of school?**

No. However, school districts are required to develop activities that are designed to promote movement toward employment but not actually secure jobs.

- 6. When should parents begin the process of seeking guardianship for their child?**

Although parents cannot formally apply for guardianship until their child is 18 years of age, they are encouraged to begin the process as early as age 17. School districts are encouraged to inform the parent of guardianship at the student's PPT when he/she is 17.

- 7. Are adult services based on a system of entitlement similar to IDEA services?**

No. Beyond the public schools, there are no mandated services similar to those required by IDEA. Although adult service options are available via state and federal agencies, not all students or young adults with ASD qualify for such services.

Appendix V-A

Planning for Transition: Suggested Areas to Consider for the Middle School to High School Transition

As students transition from building to building, the following are suggested topics for discussion:

Middle School/High School at First Glance

- ✧ Building (map of the school)
- ✧ Teachers, staff and their roles

Everyday Routines

- ✧ Lockers
- ✧ Homeroom
- ✧ A, B, C, D days (schedule)/block scheduling
- ✧ Classroom (extended resource room, regular education, etc.)
- ✧ Lunch choice (sample menu to be included)
- ✧ Lunch time/cafeteria routines
- ✧ Unified arts (description and class choices)

Changes in Routine

- ✧ Fire drills
- ✧ Assemblies
- ✧ Schedule of rotations (lunch and unified arts times)
- ✧ Schedule changes (half days, late openings, etc.)

Possible Supports Needed

1. Teacher training (both general and special education staff) related to the student's disability
 - ✧ Related service providers may need additional training
 - ✧ General education teachers will need training specific to the needs of the individual student
 - ✧ Staff must learn to manage the complex behaviors of the students with ASD

2. Information to student and parents about the new school, including:
 - ✧ Teachers
 - ✧ Classmates
 - ✧ Administration
 - ✧ Guidance
 - ✧ Related service personnel
 - ✧ Other school personnel (cafeteria workers, secretaries, custodians, etc.)

Middle School/High School Expectations

Students entering the middle school/high school are expected to engage in the following activities independently:

- ✧ enter building, locate locker
- ✧ open locker (using combination lock and/or key)
- ✧ place backpacks, coats etc. into lockers and prepare for school day
- ✧ go to homeroom – listen to announcements
- ✧ change classes
- ✧ use lunch card
- ✧ order from cafeteria menu
- ✧ rotate classes on a daily basis
- ✧ use schedules

Priorities of Instruction in Planning Transitions

1. Survey current and potential future environments
2. Assess skills needed across environments in terms of work, social, and navigation skills
3. Prioritize skills that occur across multiple environments
4. Attend to safety skills
5. Attend to skills that reduce dependence

Basic Transition Skills Relevant to All Students

1. The ability to assess themselves, including skills and abilities and the needs associated with their disability
2. Awareness of the accommodations students might need
3. Knowledge of rights to accommodations
4. The advocacy skills necessary to express needs across multiple environments

Strategies to Promote Effective Advocacy

1. Choice-making instruction
2. Role play
3. Functional “No” training
4. Provision of feedback
5. Repeated practice
6. Generalization training
7. Asking “why?”
8. Social Stories™ or scripts
9. Self-monitoring
10. Risk/benefit analysis

Appendix V-B Resources

Books and Other Materials

- Attwood, T. (1998). *Asperger's Syndrome: A guide for parents and professionals*. Philadelphia, PA: Jessica Kingsley Publishers Ltd.
- Connecticut Interagency Transition Task Force. (2004). *Connecticut's transition training manual & resource directory* [Manual]. Hartford: Author.
- Connecticut Transition Task Force/Parent Student Subcommittee. (2001). *Building a bridge* [Manual]. Hartford: Author.
- Myles, B. S., & Adreon, D. (2001). *Asperger Syndrome and adolescence: Practical solutions for school success*. Shawnee Mission, KS: Autism Asperger Publishing Co.
- Smith, M. D., Belcher, R. G., & Juhrs, P. D. (1995). *A guide to successful employment for individuals with autism*. Baltimore: Paul Brookes Publishing Co.
- Vandercook, T., & York, J. (1989). The McGill Action Planning System (MAPS: A strategy for building the vision. *JASH*, 14(3), 205-215.

Transition Web Resources

- Disability Resource Center of Fairfield County
<http://www.drcfc.org>
- Virginia Department of Rehabilitative Services information on Centers for Independent Living
<http://www.vadrs.org/cbs/cils.htm>
- Autism Society of America
<http://www.autism-society.org>
- Transition Coalition, University of Arizona
<http://www.transitioncoalition.org>
- CT Office of Protection & Advocacy for Persons with Disabilities
<http://www.ct.gov/opapd>
- State Education Resource Center (SERC)
<http://www.ctserc.org>
- CT Department of Social Services (DSS)
<http://www.ct.gov/dss>
- Bureau of Rehabilitation Services (BRS) (merger with newly created Bureau of Rehabilitation Services began in July 2011)
<http://www.ct.gov/brs>
- Department of Developmental Services (DDS)
<http://www.ct.gov/dds>
- Department of Mental Health and Addiction Services (DMHAS)
<http://www.ct.gov/dmhas>
- NICHCY
<http://www.nichcy.org>

GUIDELINES FOR THE IDENTIFICATION AND EDUCATION OF CHILDREN AND YOUTH WITH AUTISM

Council for Exceptional Children, Division on Career Development and Transition:

<http://www.ed.uiuc.edu/coe/sped/tri/projwebsites.html>

Heath Resource Center

<http://www.heath.gwu.edu>

The National Center on Secondary Education and Transition (NCSET)

<http://www.ncset.org>

National Transition Alliance for Youth with Disabilities

<http://www.ncset.org/publications/nta>

National Transition Network:

<http://ici2.umn.edu/ntn/pub>

Autism Society of America

<http://www.autism-society.org>

Additional Resources

Transition, Connecticut Birth to Three System, revised July 1, 2003

Connecticut Birth to Three and Preschool Special Education: A Side by Side Comparison of Requirements and Practices, adapted from a CT State Department of Education, Bureau of Early Childhood Education and Social Services document entitled: *What are the Similarities and differences Between the State Birth to Three System and Preschool Special Education?*

Comparison of the IEP and IFSP, Maria Synodi, Manager Preschool Special Education, Bureau of Early Childhood Education and Social Services, CT State Department of Education, September 2000.

Connecticut Birth to Three System website: <http://www.birth23.org>

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This page reflects positions of these individuals as of July 2005, when this document was first published.

