

# Educator Guidelines

## Identifying, Serving, and Educating Students with Autism Spectrum Disorders



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Dear Educators and Stakeholders:

I am extremely pleased to present to you this Educator Guidelines: Identifying, Serving, and Educating Students with Autism Spectrum Disorders technical assistance manual! The creation of this manual became a reality as a result of collaborating with a broad stakeholder group who worked from a philosophical belief that education should benefit all students.

The technical assistance manual combines information and linkages from various publications resulting in a comprehensive and thorough manual for educators. The intent of the manual is to provide both legal and relevant information for educators so they can assist and support students and their families in navigating the special education system. Although the manual is intended primarily for educators, the importance of parental/family involvement is woven throughout the guide.

I would like to personally thank the following stakeholders for their knowledge, input, time, and support with the crucial project.

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Best Regards,

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## Commonly Used Acronyms

ABA-	Applied Behavioral Analysis
ADDM-	Autism and Developmental Disabilities Monitoring Network
AIT-	Auditory Integration Training
ASD-	Autism Spectrum Disorder
CDC-	Centers for Disease Control
DD-	Developmental Disabilities
DSM-IV-	Diagnostic and Statistical Manual (Fourth Edition)
FAPE-	Free Appropriate Public Education
FBA-	Functional Behavioral Assessment
FCT-	Functional Communication Training
IDEA-	Individuals with Disabilities Education Act
IDEA-B-	Individuals with Disabilities Education Act Part B
IEP-	Individualized Education Program
IFSP-	Individualized Family Service Plan
LEA-	Local Educational Agency
LEAP-	Learning Experiences, an Alternative Approach
LRE-	Least Restrictive Environment
MDT-	Multidisciplinary Team
NLP-	Natural Language Paradigm
NMAC-	New Mexico Administrative Code
NMPED-	New Mexico Public Education Department
NM TEAM-	New Mexico Technical Evaluation Assistance Manual
NOS-	Not Otherwise Specified
PDD-	Pervasive Developmental Disorder
PECS-	Picture Exchange Communication System
PLEP-	Present Levels of Educational Performance
PRT-	Pivotal Response Training
SAT-	Student Assistance Team
SEA-	State Educational Agency
SEB-	Special Education Bureau
SLD-	Specific Learning Disability
TEACCH-	Treatment and Education of Autistic and Related Communications and Handicapped Children

## Introduction

Autism Spectrum Disorders (ASDs) are considered developmental disabilities. ASDs can cause substantial impairments in social interaction and communication and can have the presence of unusual behaviors and interests. Many students with ASDs have non-traditional ways of learning, difficulty paying attention in class, or may react to different sensations in ways that are different than typical students. The cognitive abilities of students with ASDs can range from giftedness to severe mental retardation.

An Autism Spectrum Disorder's onset is almost always identified before the age of three and typically lasts throughout the person's life.\* ASDs occur in all racial, ethnic, and socioeconomic groups and are four times more likely to occur in boys than in girls. According to data released by the Centers for Disease Control's (CDC's) Autism and Developmental Disabilities Monitoring (ADDM) Network, in (2007) approximately one in 150 eight-year-old children in multiple areas of the United States were identified with ASDs.

Every student who receives special education and related services through an Individualized Education Program (IEP) under the Individuals with Disabilities Education Act (IDEA) has unique educational needs. The purpose of this manual is to provide general information regarding ASDs to school districts and families concerning students with ASDs aged three – 21. It is the responsibility of the student's IEP Team that also includes the parent(s), to develop the most appropriate educational program for the student based on his/her individual and unique needs.

The potential academic impact, social skills, behavior, communication, sensory integration differences, and developmental challenges related to ASDs should be addressed by all members of student's IEP Team. The IEP ensures that access to the general education curriculum and the student's ability to function appropriately in the community is supported and maintained consistently throughout the student's educational program.

Although these guidelines are intended primarily for educators, it is important to note how critical and essential family/parental involvement is throughout the student's educational development beginning with the Student Assistance Team (SAT) procedure, possible eligibility determination and IEP development, and through life-span transitions. Even though family involvement has its own dedicated section in these guidelines, family/parental involvement is woven throughout the entire process.

\*With the exception of the higher level cognitive functioning Autism, Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) and Asperger's Syndrome all of which are usually identified at a later time in the student's life.

# Family Involvement

Optimum success for a student with ASD is evident when there is collaboration between the family and professionals. A collective and shared process between professionals and parents can contribute to the development of a comprehensive IEP. Each party should be expected to share their expertise and resources while respecting each other's efforts and knowledge.

Building trust and mutual respect over time will allow a type of collaboration that extends communication beyond the traditional parent-teacher or parent-professional models. Increased knowledge and access to information about ASD creates situations in which parents and professionals can learn and experience innovative methods of interventions.

A supportive process based upon a commitment to open communication and student advocacy can result in high expectations for students with ASD. The following are guidelines for providing family and professional collaboration.

## *Effective Communication*

- Families and professionals should display mutual respect, keeping the focus on the individual and his or her strengths and needs. Communication should be kept respectful, candid, confidential, and constructive.
- Families and professionals should explore options about how communication channels can best be kept open between home, school, medical, and other outside program settings. These options may vary depending on the ability of the individual with ASD to communicate and his or her age.
- Families and professionals may frequently share successes, progress, and strengths of the individual with ASD, as well as problems and deficits.

## *Team Process*

- Families as well as the individual may be active members of the IEP Team. The individual's wishes and desires may be considered as part of the self-determination process. Self-determination is defined as "a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior."
- Families may share their hopes and dreams for their student through the vision statement in the IEP. Families should be given the opportunity to collaborate in the design of the individual's program, through the IEP process. After the age of fourteen, this will include transition planning. Because individuals with ASD typically require lengthy planning and training for transitioning from school to work, the transition process may be encouraged before age fourteen.
- Families may be an integral part of the ongoing assessment of the effectiveness of the individual's program and any modifications that will be needed.

# Autism Terminology

**Autism** is a life-long, non-progressive developmental disability. Autism results from a non-specified impairment to normal brain development and may have multiple and overlapping causes. Autism is a disability characterized by impairments in social interaction, communication, and the capacity for imaginative and symbolic thinking resulting in exaggerated and stereotyped interests, behaviors, and activities. It is presumed to be present from birth and is typically apparent before the age of three. The specific cause of autism is unknown.

Autism affects an individual's ability to communicate, understand language, play, and interact with others. The severity of impairment in each of these domains varies along a continuum and the particular signs of impairment may be very diverse. Thus, those with autism may appear quite different from each other with respect to their responses to sensory stimuli, the regulation of attention, behavioral and emotional self-control, activity level, attachment to others, resistance to change, and cognitive functioning. Because of the diversity of characteristics and functioning shown by those with autism, professionals in the field have begun to use the term Autism Spectrum Disorder (ASD).

## *The Educational Definition of Autism*

**Autism as Defined by IDEA** (Individuals with Disabilities Education Act) 34 §CFR.300.8(c)(1)(i) Autism 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 movement, resistance to environment change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a student's educational performance is adversely affected primarily because the student has an emotional disturbance.

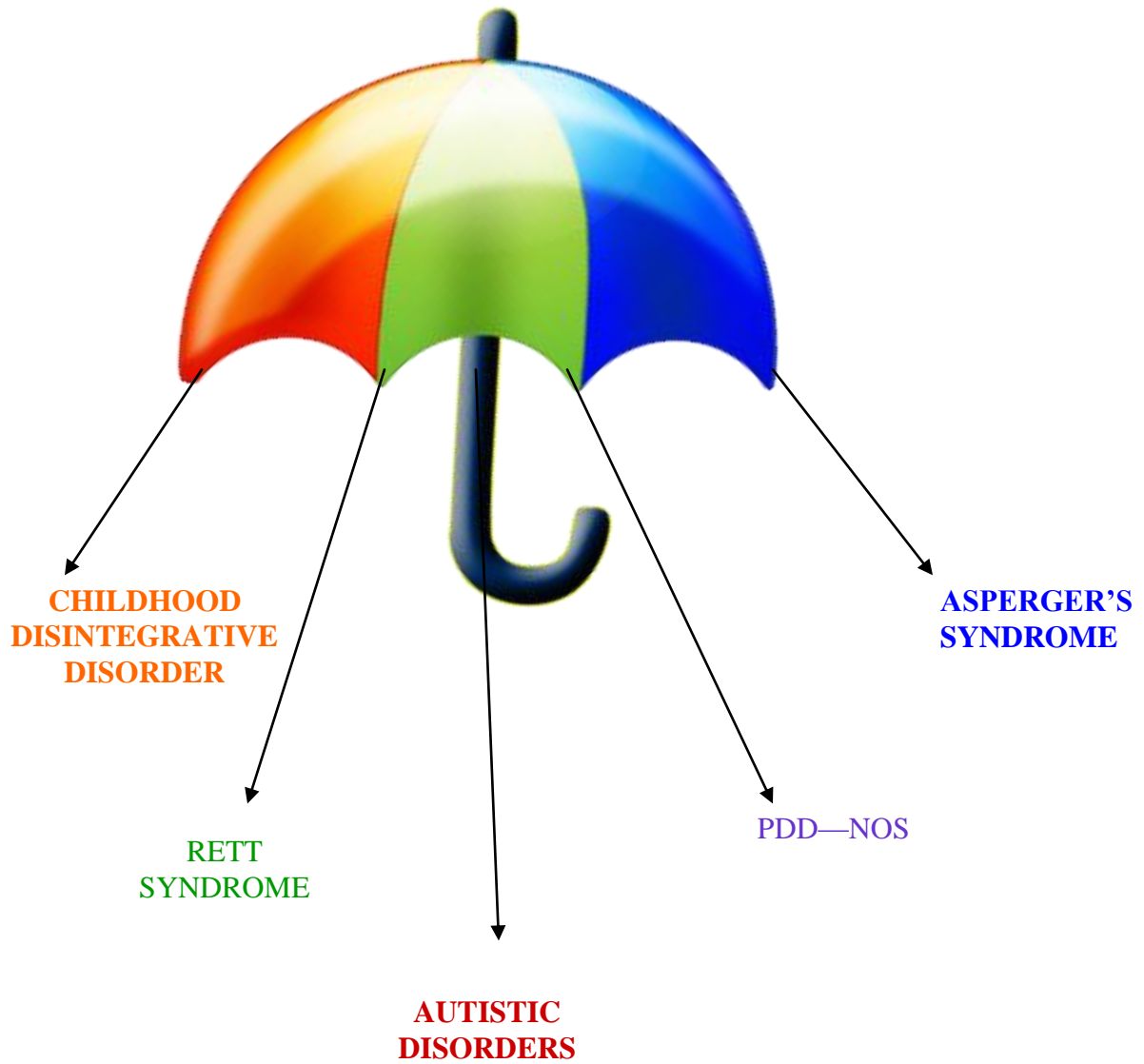
**Autistic Spectrum Disorder (ASD).** The terms autism and ASD are often used interchangeably, however, the ASD term has not been recognized by IDEA. The terms "autism" and "ASD" will be used interchangeably in this manual in order to avoid confusion with the various terminology. Pervasive Developmental Disorders (PDDs), Autistic Disorder (AD), PDD-Not Otherwise Specified (PDD-NOS) and Asperger's Syndrome are commonly referred to in the literature as the Autism Spectrum Disorders. ASD is an increasingly popular term that refers to a broad definition of autism including the classical form of the disorder as well as closely related disabilities that share many of the core characteristics. Some mental health references use the term

**Pervasive Developmental Disorder (PDD)** to describe the same condition. The Diagnostic and Statistical Manual-Fourth Edition-Text Revision (DSM-IV-TR), used by physicians and mental health professionals, is a guide to diagnosing disorders. Agencies and professionals in fields other than early intervention and education, use these



definitions to formulate a diagnostic approach to services.

## PERVASIVE DEVELOPMENTAL DISORDERS



- Autism Spectrum Disorders:
- Autistic Disorders
  - PDD—NOS
  - Asperger's Syndrome



To understand how the PDDs differ and how they are similar, it is useful to look at the DSM-IV-TR descriptions for the full criteria of each disorder. Therefore, a brief synopsis has been provided:

*Diagnostic and Statistical Manual –Fourth Edition–Text Revision*  
(DSM-IV-TR)

**Childhood Disintegrative Disorder** is an extremely rare disorder and is clearly an apparent regression in multiple areas of functioning (such as the ability to move, bladder and bowel control, and social and language skills) following a period of at least two years of apparently normal development.

**Rett's Syndrome** is diagnosed primarily in females. In students with Rett's Syndrome, development proceeds in an apparently normal fashion over the first six to 18 months, at which point parents notice a change in their child's behavior and some regression or loss of abilities, especially in gross motor skills such as walking and moving. This is followed by an obvious loss in abilities such as speech, reasoning, and hand use. The repetition of certain meaningless gestures or movements is an important clue to diagnosing Rett's Syndrome.

**Autistic Disorder** sometimes referred to as early infantile autism or childhood autism, is four times more common in boys than in girls. Individuals with Autistic Disorder have a moderate to severe range of communication, socialization, and behavior problems. Many with autism also have mental retardation.

**Pervasive Developmental Disorder—Not Otherwise Specified (PDD-NOS)** is used when there is a severe and pervasive impairment in the development of social interaction or verbal and nonverbal communication skills or when stereotyped behavior, interests, and activities are present but the criteria are not met for a specific disorder.

**Asperger's Syndrome** is a developmental disorder characterized by a lack of social skills, difficulty with social relationships, poor coordination and concentration, and a restricted range of interests but normal intelligence and adequate language skills in the areas of vocabulary and grammar. However, the individual may have difficulty understanding the subtleties used in conversation, such as irony and humor. Asperger's Syndrome appears to have a somewhat later onset than autism (at least it is recognized later).

## Possible Characteristics of Autism Spectrum Disorder

The core characteristics of ASD fall into four categories: differences in reciprocal social interactions, communication, behavior, and sensory sensitivities. The following includes some examples of the types of characteristics that a student with ASD may exhibit which may potentially impact their participation in the classroom. As emphasized previously, however, every student with ASD is unique and may show some or many of these characteristics.

### *Characteristics of Social Interactions*

- Challenges interpreting nonverbal language
- Difficulty with social reciprocity (give and take)
- Unlikely to engage in joint attention/sharing of interests
- Difficulty with pretend play
- Rigid adherence to rules
- Poor eye gaze or avoidance of eye contact
- May display few facial expressions and have trouble understanding the facial expressions of others
- Poor judgment of personal space (may stand too close to other students)
- Trouble recognizing and coping with emotions
- Challenges in understanding another person's perspective or how their own behavior affects others
- Difficulty recognizing, interpreting, and responding appropriately to various social situations
- Problems with social play/social entry such as initiating, maintaining, and ending interactions appropriately
- Limited knowledge of the concept of friendship and friendship skills
- Does not understand humor, although have a sense of humor
- Lack of friendship despite interest in others

### *Characteristics of Communication*

The fundamental problem in communication lies in the inability to recognize that needs, desires, thoughts, feelings, etc., can be communicated; there is usually no attempt to use other means of communication (e.g., gestures) in the absence of verbal language. Characteristics may include:

- Difficulty with spoken language or recognizing that their thoughts and feelings can be shared or communicated with others.
- Limited speech, while others may use communication devices, sign language, or written language to communicate. However, students with ASD are unlikely to sustain or initiate conversations.
- Advanced "surface language" skills but have difficulties using language for social communication purposes (pragmatic language).
- Delayed expressive and receptive language. Others may not speak.

- Literal understanding of speech and difficulty in picking up nuances of language.
- Engage in echolalia (repeating a word or phrase without understanding the meaning or the desired response). Echolalia may be delayed or immediate. Echolalia may also be a way for students to express their needs.
- Difficulty with conversation discourse skills.
- Delays in processing auditory information.
- Students with Asperger's Syndrome may not be able to modify language according to the social context.
- Students with Asperger's Syndrome may also change topics frequently without understanding that the link between topics may not be clear to the listener.

### *Characteristics of Behavior*

- Unusually intense or restricted interests
- Unusual repetitive behavior, verbal as well as nonverbal (i.e. hand flapping, rocking)
- Difficulty "letting go" of thoughts, ideas, situations, or events
- Challenges with changes and transitions; preference for routines
- Unusual sensitivity to sensory input—may be more or less than "typical" students
- May demonstrate little safety awareness (running from classroom, crossing streets without looking, etc.)
- Possible aggressive, disruptive, or self-injurious behavior
- Difficulties with social understanding and/or self-regulation (emotional and/or sensory) are common reasons for behavioral challenges

### *Characteristics of Sensory Processing*

Abnormalities in processing incoming sensations such as sight, smell, sound, touch, taste, pain, and temperature are experienced by 70% to 80% of the ASD population (Harrison & Hare, 2004; Myles, Cook, Miller, Rinner & Robbins, 2000; Volkmar, Cohen, & Paul, 1986). Sensory differences may make even routine daily experiences within the educational environment challenging. In some students, the differences affect only one sensory area. In others, multiple senses are impaired. The differences may be expressed through (over) hypersensitivity or (under) hyposensitivity; distortions of perception; general sensory overload; difficulties using more than one sense at a time; or confusion of channels (such as visual responses to sounds) (Harrison & Hare).

- Responds in an unusual manner to sounds (e.g., ignores sounds or overreacts to sudden, unexpected noises high-pitched continuous sounds such as fire alarms, or complex/multiple noises such as many people's voices all at once within the cafeteria )
- Responds in an unusual manner to light or color (e.g., lack of tolerance for classroom florescent lighting, focuses on shiny items, shadows, reflections, shows preference or strong dislike for certain colors)

- Responds in an unusual manner to temperature (e.g., may display behavior changes when seasons/temperatures are changing)
- Responds in an unusual manner to smells (e.g., may comment on smells that others do not detect, may not be able to tolerate smells in school cafeteria)
- Seeks activities that provide touch, pressure, or movement (e.g., swinging, hugging, pacing)
- Avoids activities that provide touch, pressure, or movement (e.g., resists wearing certain types of clothing, strongly dislikes to be dirty, resists hugs)
- Makes noises such as humming or singing frequently
- Unexplained emotional outbursts may occur as a result of these sensory differences
- Displays differences in fine and gross motor abilities (e.g., clumsiness, falling, handwriting difficulties, difficulties using playground equipment)

The following are suggested guidelines to develop an appropriate sensory program for the student with ASD:

- **Create specific routines:** This will help ensure that sensory experiences (heavy work, movement, tactile exploration, etc.) become a built in part of every day, throughout the entire day. Start the routine at wake-up and end it at bed time.
- **Involve appropriate staff and family members in the routine:** Every person who is closely involved with the student's daily routine should be informed and included in creating and maintaining the sensory program.
- **Structure the environment:** Have appropriate equipment available in all locations where the student is scheduled to be. Specific equipment will be recommended by a trained professional.
- **Pay attention to intensity, duration, and frequency of activities:** The best activities and the necessary levels of intensity, duration and frequency will have to be determined based on the evaluation and ongoing observations. These may need to be changed over time. Some activities that may be included are:
  - Movement/vestibular: Swinging, sitting on a therapy ball and bouncing or rolling on a therapy ball, doing therapy ball exercises, jumping on a trampoline, going down a slide in all different positions, riding a tricycle or bike, playing on a see-saw or teeter-tot.
  - Tactile: Opportunities to explore and experience a variety of textures with hands, feet, and body.

# Identification Process

## *Child Find or Direct Referral*

At age three, students may be referred for services provided by a public/private school system. The transition process may involve a Child Find screening or a direct referral, which may include a referral for a multidisciplinary evaluation to determine possible eligibility for special education and related services.

## *The Student Assistance Team Process*

The SAT process is an intervention model consisting of three well-defined and separate tiers. Referrals to the **IEP process** are typically only appropriate when the SAT at the school site has completed the student study process, implemented appropriate interventions with fidelity, and documented sufficient and sustained efforts to meet the needs of all students in the regular classroom. Students formally referred to the Special Education process first receive a multidisciplinary evaluation, which is an evaluation that involves one or more disciplines to determine a student's possible need for special education. The information and documentation that is required in the SAT process is important in helping design an assessment/evaluation program. Important points regarding evaluation procedures:

- In conducting the evaluation, the district must, (a) use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about the child, including information provided by the parent, which may assist in determining whether the child is a child with a disability. (b) not use any single measure or assessment as the sole criterion for determining whether a child is a child with a disability. (c) use technically sound instruments that may assess the relative contributions of cognitive and behavioral factors, in addition to physical or developmental factors.
- Each district must ensure that assessments and other evaluation materials, (a) used to assess a child are selected and administered so as not to be discriminatory on a racial or cultural basis. (b) are provided and administered in the child's native language or other mode of communication most likely to yield accurate information on what the child knows. (c) are used for the purposes for which the assessments or measures are valid and reliable. (d) are administered by trained and knowledgeable personnel. (e) are administered in accordance with any instruction provided by the producer of the assessments.
- Assessments and other evaluation materials include those tailored to assess specific areas of educational need and not merely those that are designed to provide a single general intelligence quotient.
- Assessments are selected and administered so as best to ensure that if an assessment is administered to a child with impaired sensory, manual, or speaking

skills, the assessment results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure rather than reflecting the child's impaired sensory, manual, or speaking skills (unless those skills are the factors that the test purports to measure).

- The child is 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 evaluation is sufficiently comprehensive to identify all of the child's special education and related services needs, whether or not commonly linked to the disability category in which the child has been classified.
- District ensures that assessment tools and strategies that provide relevant information that directly assists persons in determining the educational needs of the child are provided.

The Three-Tiered Model can be accessed through The Student Assistance Team and the Three-Tiered Model of Student Intervention manual and is available at the following link: <http://www.ped.state.nm.us/resources/downloads/sat.manual.html>.

Of course, if a student has an *obvious disability* or a *serious and urgent problem*, the SAT must use professional judgment, rooted in an analysis of the student's existing file information, to determine an appropriate timeline to follow when considering referral to other programs.

### *Student Currently Receiving Special Education and Related Services*

If a student is currently receiving special education and related services under a recognized disability of the IDEA, with the exception of autism, and additional information and assessments are provided by the parent(s) such as a physician's diagnosis, the student's IEP Team and other qualified professionals must review the evaluations and information. On the basis of the review and with input from the student's parents, the IEP Team identifies what additional data, if any, is needed. Then, the student's IEP Team will need to reconvene to review the evaluation and information and decide if the student's disability will change. The IEP will need to be revised to accommodate the student's updated eligibility.



# Eligibility Criteria

Eligibility is determined according to the criteria established by the 34 CFR §§ 300.301-306 of the Individuals with Disabilities Education Act Part B (IDEA-B) and New Mexico Administrative Code (NMAC). Once possible eligibility for a disability is determined through the evaluation process, which is performed by qualified individuals, the IEP must be signed by parents/guardians for permission to evaluate. The initial evaluation must be conducted within 60 calendar days after receiving parental consent for evaluation. The IEP guides the development of the special education program and services.

The IEP Team shall determine that a student is eligible for special education services in the area of ASD if the student demonstrates a **total** of six (or more) features from the chart below. The six are described in detail in the NM TEAM which can be accessed at <http://www.ped.state.nm.us/seo/library/nmteam.htm>. However, best practice suggests families should share what is discussed with the Primary Care Physician (PCP). The assessment team may choose to use a medical diagnosis of ASD if the disability significantly impacts educational performance; however a medical assessment is not required.

\* Note: The following chart features characteristics for Autistic Disorder. Appendix I has the complete list of eligibility criteria for all other disorders under Autism Spectrum Disorders.

An educational evaluation (which does not cover any other type of service, DOH, Medical, Medicaid, etc.) may address the features from all three categories and may document evidence that the student demonstrates behaviors that are atypical for the student's developmental level. A variety of technically sound instruments must be used and eligibility decisions can not be based solely on one instrument. Instruments which could be used include structured interviews with parents, ASD checklists, communication and developmental rating scales, functional behavior assessments, application of diagnostic criteria from the current Diagnostic and Statistical Manual (DSM-IV-TR), informal and standardized assessment instruments, or cognitive testing. Please refer to the Appendix G for examples of scales, and FBAs and Appendix B for ASD assessment instruments.

<p style="text-align: center;"><b>QUALITATIVE IMPAIRMENT IN SOCIAL INTERACTION</b></p> <p>Manifested by <b>two</b> of the following characteristics</p>	<p style="text-align: center;"><b>QUALITATIVE IMPAIRMENT IN COMMUNICATION</b></p> <p>Manifested by at least <b>one</b> of the following characteristics</p>	<p style="text-align: center;"><b>BEHAVIOR PATTERNS THAT ARE RESTRICTED and REPETATIVE</b></p> <p>Manifested by at least <b>one</b> of the following characteristics</p>
<p>*Marked impairment in the use of multiple nonverbal behaviors.</p>	<p>*Delay in or total lack of the development of spoken language (no attempt to use alternative methods of</p>	<p>*Preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal</p>



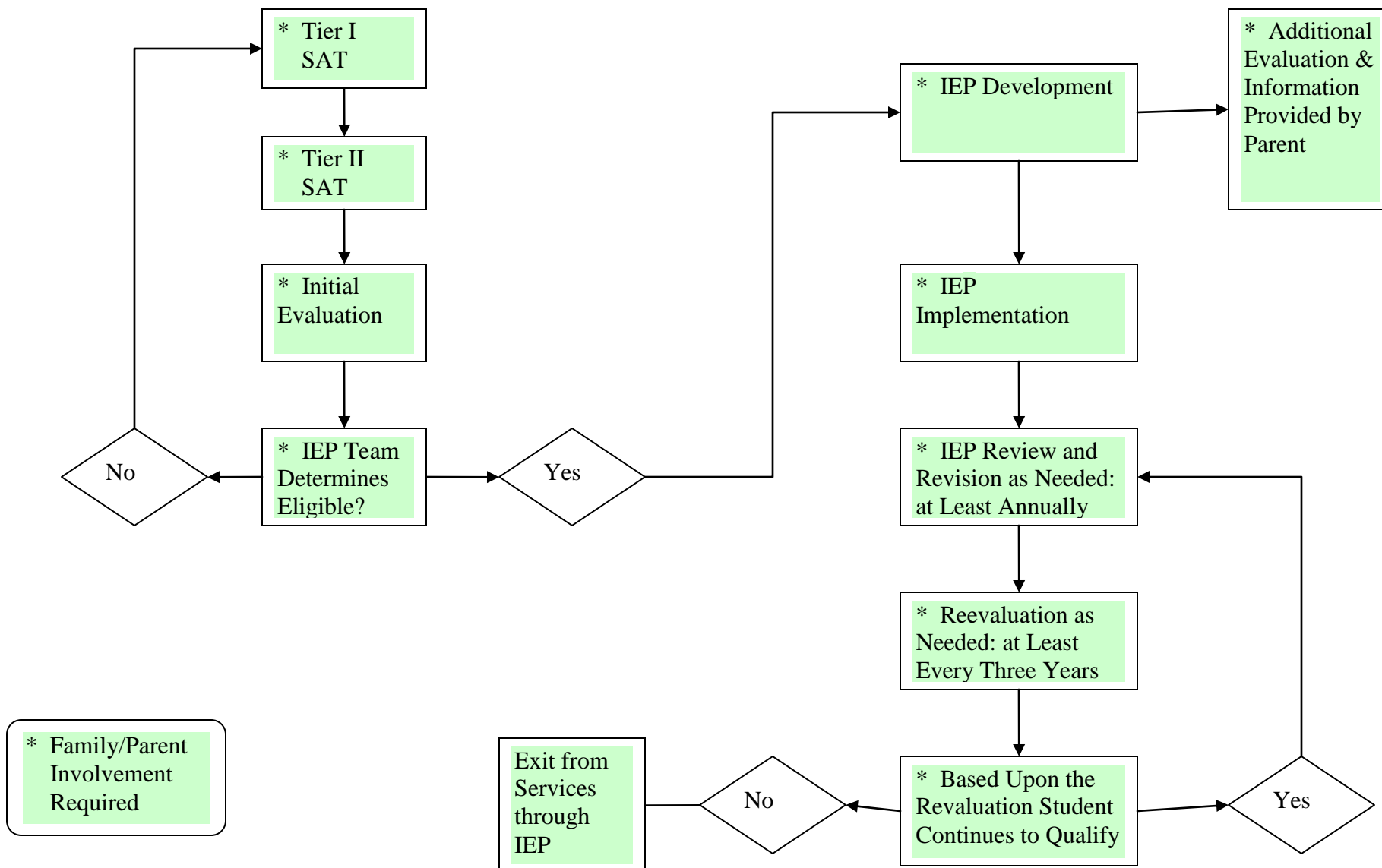
<p>*Failure to develop peer relationships appropriate to developmental level.</p> <p>*A lack of spontaneous pursuit of shared enjoyment, interests, or achievements with other people.</p> <p>*Lack of social or emotional reciprocity.</p>	<p>communication).</p> <p>*In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others.</p> <p>*Stereotyped and repetitive use of language or idiosyncratic language.</p> <p>*Lack of varied spontaneous make-believe play or social and imitative play appropriate to developmental level.</p>	<p>either in intensity or focus.</p> <p>*Apparently inflexible adherence to specific, nonfunctional routines or rituals.</p> <p>*Stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping, twisting, or complex whole-body movements).</p> <p>*Persistent preoccupation with parts of objects.</p>
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In addition to the traits described above, Autistic Disorder is also characterized by two other factors.

1. Delays or abnormal functioning in at least *one* of the following areas, with onset prior to age three:
  - Social interaction
  - Language as used in social communication
  - Symbolic or imaginative play
2. The disturbance is *not* better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

Identification, educational planning, and appropriate interventions continue to be essential components in providing a continuum of services in the LRE for students ages three to 21. There may be continued complications with communication, social development, cognitive development, sensory and motor development, adaptive functioning, and challenging behaviors. However, some characteristics and features may be heightened when responding to educational and social demands. The educational programs for students three through 21 years of age may focus on a variety of different skills depending on the skill level of individual students. High levels of stimulation and demands may require a more consistent and structured environment in order for these students to be successful. Their diverse difficulties in communication, social interactions, and atypical behaviors propose unique challenges to educators and families.

# Determination of Eligibility Process



## Considerations for Developing Individual Educational Services

The IDEA requires that every student who qualifies for services have an IEP developed that addresses his/her academic, developmental, and functional needs. The focus of instruction may shift as students with ASDs move from preschool to elementary school and from middle school to high school. It is important for the IEP Team to consider these important transitions as well as the changes in the IEP focus. Any intervention for a student with ASD should be developed through the student's IEP Team.

In order to provide effective education for students with ASDs, an IEP Team should consider multiple areas including, but not limited to, the following:

- Ensure a functional communication system
- Assess and explicitly teach social skills as needed
- Provide structure in the educational environment with clear guidelines regarding expectations for appropriate and inappropriate behaviors
- Provide visual tools, such as written or picture schedules, to ensure that the flow of activities is understandable and predictable
- Base the curriculum on the student's individual characteristics, not on the label of autism. A diagnosis of autism does not indicate what or how to teach
- Ensure that the individual services and strategies for special education are connected to the general education curriculum
- Use instructional strategies that move students to independence
- Promote student independence
- Focus on transition goals that will be of use in the student's on-going and future life in school, home, and community.
- Plan well in advance for transitions to educational and community services in order to design structures and supports for the student
- Replace problem behaviors with more conventional and appropriate behaviors that serve the same function

- Teach independent organizational skills and other behaviors that underlie success in regular education classrooms (e.g. completing a task independently, following instructions in a group, asking for help)
- Identifying and developing interventions by IEP Team
- Effective practice suggests that on-going measurement of student responses to instruction be documented in order to determine whether a student is benefiting from a particular intervention. Progress monitoring adjusts to interventions decided by the IEP Team. Every student's response to an intervention program should be assessed after a short period of time with progress monitored frequently and objectives adjusted accordingly.

Effective programs for students with ASDs in the areas of social engagement, language, coping and reduction of difficult behaviors have multiple characteristics, including the following:

- An individualized approach is used to select a developmentally appropriate method and level of program
  - Consider appropriateness of intervention methods
  - Remember that no single approach will be right for every student and some students will benefit from multiple approaches
  - Observe and record data consistently to see what interventions work and consider a different approach immediately if students do not show progress
- The curriculum is organized around normal developmental expectations
  - Analyze all areas of development and plan activities at the student's level
  - Increase independence through use of concrete clues, including meaningful visual stimuli to help the student understand what is expected
- A highly structured and organized environment is used
  - Provide a predictable routine with an individualized schedule
- Behavioral intervention may be needed to assist a student in gaining skills and to reduce challenging or undesirable behaviors
  - Use functional behavioral assessment to and look for communicative intent of behavior
  - Plan intervention to acknowledge the communicative intent
  - Reinforce positive behaviors to reduce challenging behaviors
  - Teach replacement behaviors that have the same communicative intent as the undesirable behavior
- All forms of data are recorded to monitor progress and to troubleshoot
  - Use assessment results as a guide for planning what skills to teach next
  - Provide data on the success of interventions employed

- Consider the outcomes of students with differing profiles in language and cognition
- Generalization and maintenance of skills are built into the program
- Opportunities are provided to participate and be included in general education classrooms
- Collaboration of all team members representing various disciplines such as related services personnel, teachers, support staff and parents is needed
- Related services are included in developing and implementing the IEP program (e.g. speech, occupational therapy, adapted physical therapy and augmentative communication), if needed
- Transitional support is provided when the student leaves one program and moves to the next
  - Teach the skills needed in the natural setting, environment or program situation and provide needed support for transitions
  - Use of evidence-based practices
  - Ongoing assessment

### *Identification of Supplemental Support Services*

Consideration of family needs regarding additional medical or community support services should be an integral part of the formal IEP meeting discussion, and a range of options can be expanded through interagency collaborations. The State recommended IEP forms are incorporated in Appendix F and include a section on linkages to other agencies.

Support Services:

Information on the Developmental Disabilities (DD) waiver can be accessed at [www.health.state.nm.us/ddsd/index.htm](http://www.health.state.nm.us/ddsd/index.htm).

Information on the Developmental Disabilities (DD) waiver can be accessed at <http://www.health.state.nm.us/ddsd/servicesoverview/pg02overviewddw.htm>

UNM Center on Development and Disability Autism Programs:  
<http://cdd.unm.edu/SWAN/>

UNM Center on Development and Disability Information Center:  
<http://cdd.unm.edu/infocenternm/>

State General Fund Services, including behavioral and recreational respite:  
<http://www.health.state.nm.us/ddsd/sgfserviceswebsitedev/stategeneralfundedsvcspg01.htm>  
Phone: 1-877-696-1472

Family Infant and Toddler Program:  
<http://www.health.state.nm.us/ddsd/fit/>

Individual Assistance and Advocacy Unit:  
Phone: 505-841-5529



## Developing and Individualized Education Program (IEP)

The focus of instruction will shift as students with autism travel down their educational path. As students grow, they experience periods of transition that will require changes in their educational planning. Team discussion and preparation are key components of successful transition planning and organizing. Over the past several years, significant progress has been made in the care and education of students with autism. Progress can occur when adults involved in the lives of students continuously seek a greater understanding of autism and how it is diagnosed and treated. No single approach is likely to be right for every student. However, there are characteristics of effective instructional programming that can be followed to guide the planning and decision-making of teams. Districts may consider incorporating the guidelines from the New Mexico Technical Assistance Manual (NM TEAM) to address the process and development of an IEP referenced at <http://www.ped.state.nm.us/seo/index.htm> and also in Appendix F.

Although some students with ASD may present instructional challenges, they do learn with appropriate, systematic, and individualized teaching practices. To provide effective early intervention and education for students with autism, the district may incorporate the following considerations for all age life spans:

### *Preschool/ Elementary/ High School Settings*

#### **Academic:**

- Ensure that special education services include strategies to address fine and gross motor development goals and are connected to the general education curriculum
- Encourage parents and other family members to participate in the process of assessment, curriculum planning, instruction, and review.
- Ensure that curriculums and assessments focus on cognitive skills, including symbolic play.

#### **Motivational:**

- Design age appropriate behavior modification systems to motivate and reinforce positive behaviors.
- Provide opportunities to engage in varied activities that decrease social isolation.
- Provide opportunities to self-select their activities and participate with them to build communication.

#### **Social:**

- Design structure to provide continuity for transitions to new educational and community services and supports for the student.
- Provide adaptable and flexible environments with accommodations for students with ASD to enhance participation between family, school, and community activities.
- Provide social interaction opportunities to respond to adults and peers through



- parallel and interactive play to enhance expressive verbal and receptive language.
- As part of transition planning provide opportunities to practice skills and generalize newly learned skills in a variety of authentic settings.
  - Teach developmentally appropriate skills using age appropriate tasks and materials.
  - Provide reinforcer assessment strategies to develop appropriate motivational systems that take into account the student's hyper and hypo sensitivities.

The IEP for students ages three through 21 is the vehicle for identifying and planning appropriate interventions. Educational goals and objectives need to be observable, measurable, and related to a student's unique needs. These goals and objectives need to be written for a one-year period of time and designed to promote a student's participation across a variety of environments. Goals and objectives should parallel the areas of strengths and needs identified through the assessment process as outlined in the NM TEAM and defined in the Present Levels of Academic Achievement and Functional Performance (PLAAFP) section of the IEP, which can be referenced at <http://www.ped.state.nm.us/seo/index.htm> and also in Appendix F. Effective practice suggests that on-going measurement of intervention objectives be documented in order to determine whether a student is benefiting from a particular intervention. Every student's response to an intervention program should be assessed according to the documented timelines outlined in the IEP with progress monitored frequently and objectives adjusted accordingly.

Considerations of interventions, frequency, and intensity are made on a student by student basis. Following the development of goals and objectives for the student, the methods of intervention and supports should be discussed. The special education program, including related services, may be linked to the general education curriculum through a coordinated and consistent programmatic approach that supports the generalization of skills.

In order for an IEP for a student with autism to be implemented successfully and address areas such as social engagement, language, coping, and reduction of challenging behaviors, a district may consider incorporating the following strategies into their educational programs:

**Academic:**

- Apply an individualized approach to select a developmentally appropriate method and level of program:
  - 1) Consider several intervention methods and multiple approaches, taking into account that no single approach will be right for every student.
  - 2) Observe and record data consistently to evaluate the interventions and modify those interventions accordingly.
- The curriculum is organized around normal academic developmental expectations:
  - 1) Analyze all areas of development and plan activities at the student's

- level.
- 2) Utilized a standards based curriculum or a modified curriculum that is language and communication intensive to be applied through functional and meaningful tasks.
  - 3) Stimulate socialization and play opportunities.
  - 4) Provide predictable, individualized routines and schedules in an organized environment to increase independence with the use of concrete clues and meaningful visual stimuli.

Under the Individuals with Disabilities Education Act (IDEA) and New Mexico Special Education Rules (6.31.2 NMAC), the IEP of a student with a disability must contain a statement of the student's academic achievement and functional performance including how the disability affects the student's involvement and progress in the general curriculum; or for pre-school students, how the student's disability affects participation in activities. Commonly referred to as Present Levels of Academic Achievement and Functional Performance, the document should describe the impact of the student's disability and performance in the areas identified academic or non-academic (including behavior).

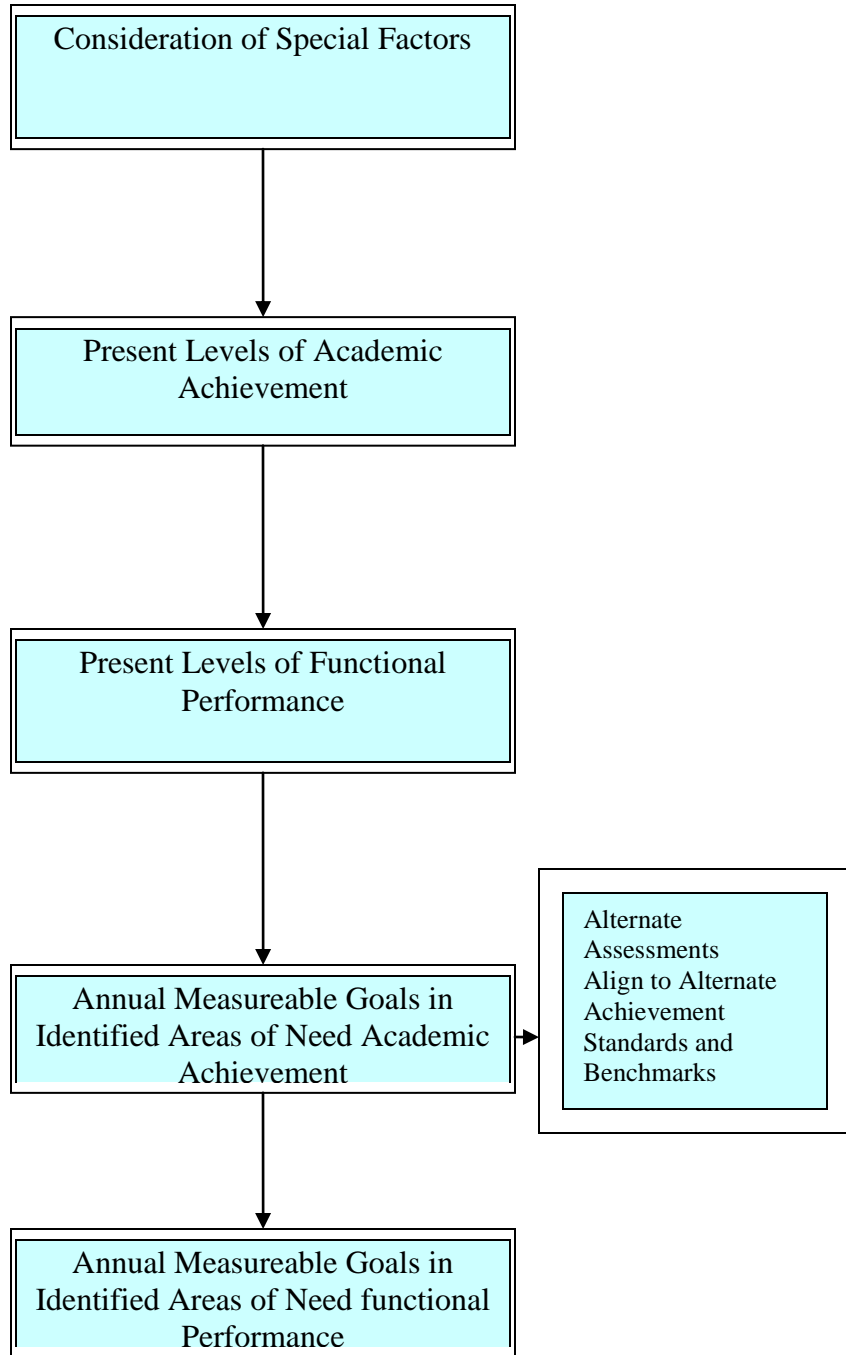
**Behavioral:**

- Behavioral intervention may be needed to assist a student in gaining skills and to reduce challenging behaviors:
  - 1) Utilize the results of a Functional Behavioral Assessment (FBA) to decipher the communicative intent of the behaviors and plan interventions to acknowledge the communicative intent.
  - 2) Reinforce positive behaviors to reduce challenging behaviors and apply appropriate behavioral responses; a Behavior Plan is often recommended.

The following areas should be considered when developing an IEP for students with ASD. They are present levels, goals, modifications and accommodations, and the addition of support services and/or adding assistive technology. There are four main areas in addition to academics, transitional and pragmatic to focus on when developing an IEP for a student with ASD: Communication, Behavior, Sensory Issues and Social Interactions.

**COMMUNICATION:** It is important to understand the student's speech, language (receptive and expressive), pragmatic language skills and communication skills. In order to develop an appropriate educational program that considers all communication skills and needs the following sections of the IEP should be discussed among all IEP members:

# Sections of the IEP: Developing Appropriate Educational Programs



These sections of the IEP should guide all IEP Team members to determine which tools and methods are appropriate to supporting all forms of communication—verbal, signing, pictorial, augmentative devices and often a combination of more than one to promote learning. An effective IEP addresses the proper use of language. When discussing IEP Goals for the student with ASD, building pragmatic language skills is often a consideration which can be addressed and assessed as an identified area of need as an Annual Measurable Goal. There are many strategies that are being implemented in today's classrooms which address these goals including social stories, role playing, rehearsing and most importantly, modeling.

**SOCIAL SKILLS:** Acceptable behaviors that allows a person to interact effectively with others. Unfortunately, students with ASD are often challenged in this area. Some of the documented social deficits are:

- marked impairment in nonverbal gestures
- little joint attention or sharing of interests
- few appropriate peer relationships
- perseveration on restricted topics
- poor social reciprocity
- difficulty expressing emotions
- difficulty with understanding humor, or unspoken rules

Writing goals to address the deficits these students face are a challenge. Some suggestions are to practice proper volume and inflection, stage rehearsals, act through social stories and predict responses. Teaching social skills is an ongoing task that can be done through modeling, prompting, coaching and providing positive feedback. Instructing on proper opening comments, topic selections, and recognizing conversational cues is recommended.

When developing an IEP for students with ASD it is important to consider how to accommodate their needs as they transition throughout and within the educational and community settings. The Transition Services/Interagency Linkages section of the IEP allows the IEP Team to address the following needs with specific activities/strategies and timeframes:

- Instructional
- Related Services
- Community Experiences
- Employment/Post School
- Independent/Daily Living Skills
- Functional Vocational Assessment

Given the interdependence of each area it is important to note that the quality and frequency in implementing any strategy may affect the success of other areas of need and directly affect the student's ability to transition within the educational and community settings.

**BEHAVIOR:** This section focuses on understanding behavior and intervention strategies. Appropriate social behavior is necessary for learning, interacting with peers, and involvement in the community. Unfortunately, many students with ASD may have difficulty exhibiting the behavior expected in a classroom. When developing an IEP it is important to take into consideration the underlying challenges specific to behavior such as environment and social factors. Therefore, it is important to include proper goals and accommodations in the IEP (which are based on the PLAAFP) for responding to more challenging behaviors. When developing a FBA/BIP it is important to keep in mind the underlying characteristics of autism.

Any behavioral factors can be assessed with a systematic procedure called the Functional Behavior Assessment (FBA). The premise of an FBA is to identify the environmental and/or social factors that may be causing the purpose of a given behavior which could include:

- 1) an attempt to escape/avoid a particular situation
- 2) an attempt to control and/or regain control of a particular situation
- 3) an attempt to get a specific object
- 4) an expression for a particular sensory need
- 5) an attempt to get attention

FBA's are referenced in Appendix G as well as in the Developing Quality IEPs Technical Assistance Manual. The findings from the FBA can then be applied to developing Annual Measurable Goals to improve any challenging behaviors including interventions within the educational setting.

It should be noted that any successful intervention for challenging behaviors requires all persons involved with the student to work together to meet his or her needs. Flexibility is required.

**SENSORY PROCESSING:** It is important to be aware that students with ASD will likely have difficulty in one or more of these sensory systems. For example, over-sensitivity to sounds, light, touch or movement can indicate sensory defensiveness. This may be characterized by unexplained emotional responses and/or reactions, stereotypic behaviors such as rocking and pacing or fearful avoidance of contact with people and objects in the environment. The identification of strategies to address these challenges can expand the opportunities for relationships, work and leisure in which students with ASD can participate within the community and educational settings.

Sensory processing challenges can limit the experiences and environments in which a student with ASD can function successfully. The academic and social development of a student with ASD can be greatly impacted depending upon the quality and frequency of sensory processing interventions. When discussing the present levels of performance and sensory processing concerns, it is important to include the areas which affect the student's ability to function in school. For instance, documenting how bright lights affect the student's ability to function in the learning environment.

The following are suggested guidelines to develop an educational environment conducive to supporting the sensory development of students with ASD:

- Determine student's tolerance/comfort with input from various sensory channels.
- Identify behavioral indicators of excessive stimulation (e.g., covering ears or eyes with hands, body rocking, hand flapping, withdrawing).
- Conduct an environmental assessment to identify problem stimuli (e.g., lighting, noise, odors, textures, and limitation of personal space).
- Proactively modify the environment to accommodate sensory motor processing needs (e.g., reduce noise with sound absorbing materials, keep visual stimuli to a minimum, create study carrels and clear boundaries for work areas).
- Determine the need for appropriate sensory input throughout the day (e.g., deep pressure, movement, and materials to manipulate during instruction or work time).
- Provide access to suspended equipment (e.g., swing in corner of classroom or gym), if indicated.
- Incorporate movement activities and manipulative materials into instructional time.
- Provide supervised breaks for additional physical activities and/or sensory input as needed (e.g., exercises, walks, mini-trampoline).
- Determine environmental/task modifications that may help in reducing the motor challenges facing the student (e.g., desk/chair height, writing utensils, position/type of work materials).
- Allow the student to stand at the chalkboard or an easel to work. Standing will provide needed input into trunk musculature that will help the student stay alert and focused on the task.

## Considerations as Children Transition to Adulthood

Transitions are typically difficult for individuals with autism. The transition to adulthood brings specific challenges regarding planning for life after graduation, such as the possibility of moving out of the family home, and transitions to employment or post-secondary education. It is important to address each child's needs, and not plan systematically. For some children, there will be a need to plan for adult Developmental Disability Services, but for others, it may only be necessary to plan for some form of social support. As ASDs fall across a spectrum, so do children's specific needs.

In order for a transition to adulthood to be successful, it is important to begin planning early. Ideally this planning will begin at or before the age of 14. Assessment of both a child's long term challenges and dreams should be conducted to determine the individual's future need for adult residential and day services, guardianship, and employment. Some children with autism will not require any supports in these areas because of their level of independence these individuals may require social supports. Other children will require supports in one or more of these areas.

If possible, give the student opportunities to experience adult life while still in the relative stability and familiarity of the school environment in order to ease the transition. Exploration of work and work interests, opportunities to learn activities of daily living, and making adult decisions are all valuable to the student as he or she transitions. These are all typical activities of any student who is growing through their adolescence, but are frequently not offered to students with autism. The activities should help guide the planning and lead the support team to an idea of what long-term supports the individual will need as an adult.

Adult services are provided through the New Mexico Department of Health Developmental Disabilities Supports Division (DDSD). Services are based on an individual's eligibility as determined through assessment of diagnosis, functional IQ and skill deficits. Having a diagnosis of autism does not assure that an individual will meet the requirements to access DDSD services. For information on applying for DDSD services, please visit: <http://www.health.state.nm.us/ddsd/eligibility/eligibilitypg2.htm>

Once a child is determined to be eligible for DDSD services, they may be able to access residential, day or employment services. Services should be planned in a team environment, with as much support given for the individual to make his/her own decisions and guide the future. Options are available statewide for services that will address the individual's functional and social needs. Information regarding DDSD services may be accessed at: <http://www.health.state.nm.us/ddsd/programswaiversandstatefunding/programswaiversandservicespg2.htm>



Employment is a vital part of most people's lives. This is not different for students or adults with autism. These individuals have distinct needs and may experience difficulty finding or maintaining employment. A vocational assessment and/or job coaching may assist the team to functionally support the individual in both finding employment and maintaining it. Support to complete a vocational assessment and support an individual with employment is available through the New Mexico Division of Vocational Rehabilitation. Information is available at:

<http://www.dvrgetsjobs.com/AboutUs/AboutDVR.aspx> Additional resources may be found on the DDS website at:

<http://www.health.stat.nm.us/ddsd/meaningfullife/meaningfullife1.htm>



# Guardianship

It should not be assumed that children with autism must have a guardian once they reach the age of majority. The decision to pursue guardianship should be guided by a thorough understanding of the individual's needs and decision making capacity. If the family and support network feel the child is unable to make decisions that will meet health, safety and support needs, guardianship may be appropriate. Guardianship in New Mexico is governed by the Probate Code, sections 45-5-101 et seq., NMSA 1978. A legal process must be followed in which there will be assessment of the individual's ability to make decisions that are in their best interest, the appropriateness of the proposed guardian, and the type of guardian the individual needs (i.e. limited financial, limited medical, plenary, etc.) For more information on Guardianship, the DDPC Office of Guardianship may be contacted at 1-800-311-2229. For those individuals who have been determined eligible for DDS services, the DDS Individual Assistance and Advocacy Unit may be contacted at: 505-841-5529. Additional information is available in the "DDS Technical Assistance Guidelines for Community Programs, Case Managers and Interdisciplinary Team Members Regarding Guardianship." This document may be found on the DDS website at <http://www.health.state.nm.us/ddsd/documents/Guardianship02062008r.pdf>



## Interventions: Approaches and Methodologies

Overall, many of the programs designed to support students with ASDs are more similar than different in terms of levels of organization, staffing, ongoing monitoring, and the use of certain techniques. However, there are genuine differences in philosophy and practice that provide a range of alternatives for parents and professionals considering various approaches. The key to designing an effective program lies in assessing the student's present level of performance and developing appropriate goals and outcomes with family input and participation. Much more important than the name of the program utilized is how the environment and program strategies allow implementation of the student's goals. Thus, effective services will, and should, vary considerably across individual students depending on age, cognitive and language levels, behavioral needs, educational needs, and family priorities.

The approach that works best for a student with autism is the one that is the most specific in meeting a student's individual needs. An appropriate individual intervention program is achieved by considering the following:

- Developmental strengths, needs, and challenges for each student
- Individualized learning styles
- Services needed to support the student's learning
- Intensity and duration of services
- Location and arrangement of environments for learning
- Social support and opportunities for acceptance by peers

Students with autism learn in complex ways. One student may require a more intense level of intervention, whereas the same level of intervention may over-stimulate another student. The reaction, tolerance, or sensitivity to someone's voice or the duration and intensity of touching may vary considerably among students with autism. Their learning needs, like their symptoms of autism, transform as they develop. To focus on only one approach or method of intervention, which might temporarily produce a desired result, could ultimately restrict a student's growth.

Students with autism benefit most when intervention is planned, systematic, individualized, and implemented across settings. Intervention programming across environments is possible through a network of support services. A network of support services can be formed and maintained by the efforts of service providers from a variety of agencies, parent organizations, nonprofit support organizations, advocacy groups, informed professionals in the community, and the school district. Such support services might include: parent training, respite care, medical intervention for treatment of hyperactivity and sleep disorders, counseling, and behavior management for aggression or self-injurious behavior.

## *Behavioral*

### **Pivotal Response Training (PRT)**

Motivation is typically limited in students with autism and may prevent generalization of learned responses. In Pivotal Response Training (PRT), the intervention goes beyond targeting a single behavior; instead, it focuses on a set of specific procedures that increase responsively to simultaneous multiple stimulus cues. The logic of teaching pivotal target behaviors is that professionals might indirectly affect a large number of individual behaviors while focusing on a single target behavior. For example, teaching students with autism to initiate and respond to joint attention bids may increase other communication and social skills even though those skills are not targeted directly. Such an intervention is thought to be more efficient in time and effort required of the student and provider and also more effective in terms of promoting generalized gains.

### **Discrete Trial Training/Lovaas**

Discrete Trial Training is a generic term that involves teaching a person to perform a particular activity by breaking it into simpler components, which can then be rehearsed individually and chained into a complex sequence. This teaching strategy is found in Lovaas training although these terms have different origins in the behavioral literature and are not actually the same. Discrete Trial Training can be used within other educational methodologies as a way of teaching the steps needed to complete sequenced tasks and is particularly helpful for students who have motor planning difficulties.

While training has been documented as effective in teaching linear, chainable sequences, its efficacy has been questioned when teaching behaviors that by their nature need to be interactive rather than reactive and sequenced. Language and social interaction skills are not necessarily linear, chainable skills.

Ivar Lovaas has used discrete trial methodology to teach skills to students with autism in a program that includes family participation and one-to-one instruction. This approach is intensive and often begins with remediating speech and language deficits. Later, when the student has learned specific skills for family routines, students are given explicit instruction in how to interact with peers through integration into “normal” group situations.

### **Functional Communication Training (FCT)**

An instructional strategy that identifies functionally equivalent alternatives to a student’s challenging behaviors is known as Functional Communication Training (FCT). In this approach, skills are targeted for instruction that fit within a customary communicative system. An understanding of the communicative functions of a student’s problem behaviors informs the interventionists of specific objectives for early instruction in communication skills. The behavioral-analytical approach is used in teaching and reinforcing the skills identified in the FCT program.

## Biomedical

Students with autism vary greatly in their degree of medical involvement. They may be healthy and energetic with normal sleep patterns, or they may be involved with one or more medical problems.

The DSM-IV-TR includes information regarding neurological abnormalities that are reported in a significant percentage of students with autism. These include various nonspecific neurological characteristics or signs such as primitive reflexes or delayed hand dominance. Characteristics of autism may also be observed in association with neurological and other general medical conditions such as encephalitis, phenylketonuria, tuberous sclerosis, fragile X syndrome, anoxia during birth, maternal rubella, and brain tumor. Seizure disorders, particularly in adolescence, are seen in as many as 25 percent of cases.

Medical problems, including immune system dysfunction and neuro-chemical abnormalities, suggest that medical interventions should be sought out as adjunctive treatments for students with autism. A great deal of research is taking place in medical intervention strategies, use of drugs in treatment, and the genetics of autism.

## Developmental

The developmental treatment approach emphasizes the student's ability to relate to others with warmth, pleasure, empathy, and growing emotional flexibility. The challenge in this approach is in designing activities to help the student with autism to learn to attend, relate, interact, experience a range of feelings, and ultimately, think and relate in an organized and logical manner.

The developmental approach requires direct and vigilant observation of interaction and relationships between the student and caregiver, as well as between the student and therapist, to identify "emerging capacities" for warm, intimate, interpersonal relating. Treatment is relationship-based, is focused on opportunities for spontaneous relating, and relies on effect cueing to achieve results.

The approach is based on following the student's lead and supporting interaction that accomplishes skill acquisition in developmental sequences. The approach is often implemented with young students and contains several key features, such as in the following list:

- An IEP Team is comprised of a mental health professional, such as a school social worker, speech pathologist, occupational therapist, and special educator. Regular intensive work with the student and family is the core of the program.
- Integration with typically developing students of a similar age or developmental level provides opportunities for communication and interaction.
- Interventions focus on interaction patterns of student and parent.
- Students with disabilities are integrated into adequately staffed programs with typically developing students of a similar chronological age or developmental level (e.g., one or two preschool students with disabilities in a group of at least

five typically developing students). Grouping students with disabilities with each other may not be in the interest of any individual student, especially if a student's disability includes difficulties in communication or social interaction. As the student tries to communicate, he or she needs someone who can communicate back.

- A professional should consult with the parents and other caregivers at least once a week to help with the family dynamics and interactive patterns at home.

Early interventionists, childcare providers, and teachers should be trained in techniques for appropriate peer-to-peer interaction, particularly between students with disabilities and typically developing students.

### **Play Time Experiences**

When presented with opportunities to play with other students, students with autism often remain isolated. It is not that students with autism do not play. The problem is that their play patterns are unusual, hard to interpret, and often do not fit in with the ways that other students play. Many fail to play spontaneously, and they develop ritualistic and repetitive patterns of play.

Students with autism often watch other students play, not knowing how to join, not able to communicate their own interests, and not understanding the social advances of the other students. Individualized (IEP) outcomes or goals designed around functional skill areas can be implemented through play opportunities.

**Some of the characteristics of appropriate play opportunities are described in the following list:**

- Strategies to enhance play skills should be incorporated into all aspects of the preschool program and for students in early elementary grades when possible.
- The adult serves as a facilitator rather than directing play.
- Set up play partners or take on this role as the adult. Many students with autism find adults easier to follow because their behavior is more predictable and more structured than the behavior of other students.
- Choose play materials on the basis of age appropriateness, potential for social play, realism, and structure.
- Assist other students in discovering ways to involve the student with autism in their play activities.
- Build on student's play activities by suggesting additional props and themes.

### **Communication Strategies**

Communication is a primary focus of skill development for students with autism because it is a common area of developmental delay. Communication is crucial for socialization and cognitive development, and it relates to the occurrence of challenging behaviors.

Approaches used by Speech/Language Pathologists are often designed to integrate communication training with the student's behavior program. Coordinating the opportunities for structured and naturalistic language learning can provide measurable



and socially valid change in students with communication disabilities. Interventions in the development of morphological, syntactic, semantic, pragmatic, and speech intelligibility aspects of the linguistic system will enhance the communication abilities of students.

### **Incidental Teaching Model**

The authors present an intervention model that exemplifies the overlap that frequently exists between approaches based on different intervention traditions such as applied behavior analysis (ABA) and developmental models. Although grounded in ABA principles of learning, the incidental teaching approach and curriculum are more similar to developmental approaches than to traditional ABA. The model provides opportunities to intervene within the context of ongoing activities in a typical early childhood setting with a peer group, as well as in the family environment. Thus, generalization of language and social skills can be actively promoted. A major emphasis of this approach is on establishing and maintaining engagement to support social development.

### **LEAP Outreach Project – University of Colorado at Denver**

The Learning Experiences, an Alternative Approach (LEAP) Preschool is a comprehensive interdisciplinary model of service delivery for preschool-age students with autism and their families. LEAP's approach includes the following components:

- Systematic teaching for typical students that results in their daily social and communicative engagement of peers with autism.
- Functional analysis of problem behaviors and communication-based strategies to replace the behaviors with more adaptive skills.
- Systematic daily data collection on IEP objectives and follow-up decision making strategies regarding ongoing intervention.
- Programmed generalization promotion strategies that are built into initial skill acquisition tactics.
- Planning strategies to embed multiple response opportunities within naturally occurring activities that are fun for all students.
- A competency-based approach to behavior skill-training for families.
- Staffing to support family and student skill acquisition in home, school, and community settings.

### **Natural Language Paradigm (NLP)**

In the Natural Language Paradigm (NLP), specific targets are taught in a variety of social settings using natural reinforcers. This system includes interaction with a communication partner or access to desired objects rather than using token or food reinforcers. NLP is similar to other models that teach the student to signal or ask for something by systematically prompting verbalizations with hands. Teachers model verbalizations if necessary and reinforce appropriate verbalization during daily routines. The NLP procedures differ from other natural language programs by combining several of the positive features of both traditional operant procedures and natural language procedures.

### **Picture Exchange Communication System (PECS)**

The Picture Exchange Communication System (PECS) is a communication training program to help students with autism acquire functional communication skills. Students using PECS are taught to give a picture of a desired item to a communication partner in exchange for the item. The goals of PECS include the identification of objects that may serve as reinforcers for each student's actions and the learning of responses to simple questions with multipicture systems. Special providers can quickly learn how to incorporate picture systems into a schedule-following program for students, to combine picture systems with time-based reward systems, and to promote spontaneity in the classroom.

### *Neurosensory*

#### **Sensorimotor Therapies**

Sensorimotor information is interpreted by the senses of the body—how we hear, see, feel, smell, and taste. The way the body uses the information and the behaviors that can be present if the body and brain misinterpret this information, may be problematic for some individuals with autism. The approaches of Sensory Integration, Sensorimotor Interaction, and Auditory Integration Training (AIT) all work from a theoretical basis that the student has atypical responses to sensory input. These approaches work to integrate the senses to provide a more organized sensory system.

These approaches use structured physical activities, such as rhythm, body awareness, perceptual-motor development, and swimming. There is some question about the validity in enhancing language, controlling disruptive behavior, or reducing other characteristics of autistic behaviors through sensory integration therapy. However, these activities may offer enjoyable, healthy, physical activity and support the development of overall coordination skills that may be important in the student's development.

### *Psychotherapy*

Psychoanalytic approaches include Holding Therapy, Gentle Teaching, and Options. These approaches view behavioral characteristics of students with autism as expressions of underlying processes that constitute the real pathology. This approach emphasizes psychological causes and treatment rather than dealing with a "physical disease." Research does not show any evidence of a psychogenic cause of autism. The effectiveness of psychotherapeutic approaches is questionable even though some techniques are helpful in some situations.

#### **Play Therapy**

Play has a role in facilitating language and cognition. As an intervention method to promote skills, individual settings and play group design can allow the provider to structure activities to accommodate the student's level of functioning and create unique opportunities for new skills. Some have questioned the appropriateness of play therapy. However, play therapy has been found to be useful in treatment of students with autism. Play therapy has supported student's attachment behaviors and capacity to form relationships. Learning appropriate behaviors with toys has shown an effect on reduction of self-stimulatory behaviors and ability to generalize appropriate play skills to new



settings. Using sociodramatic play models, students have shown positive changes in play, language, and social skills.

### **Interventions and Strategies**

In an effort to support states' education of children and youth with autism spectrum disorders, the Office of Special Education Programs (OSEP) has funded the National Professional Development Center on Autism Spectrum Disorders. The NPD is a consortium of three Universities: University of North Carolina, University of Wisconsin and the University of California-Davis. The goals of the NPD Center is to promote optimal development and learning of children and youth with ASD through the use of evidence-based practices, to increase the number of highly qualified personnel serving children with ASD and to increase the capacity of states to implement evidence-based practices for early identification, intervention, education, professional development & technical assistance. As part of these goals, the NPD Center has identified at least twenty two practices that have evidence for intervention with children and youth with ASD.

The NPD will collaborate with the Autism Internet Module (AIM) Project to develop modules that will contain pre and post testing, didactic teaching, video demonstrations of practices as well as references for these evidence based practices. AIM is a collaborative project of the Ohio Center for Autism and Low Incidence (OCALI), the Autism Society of America (ASA) and others. In this way, training will be available at no cost for school districts and families about these practices. The modules are located at [www.autisminternetmodules.org](http://www.autisminternetmodules.org). Interested personnel should check the web site frequently as new modules are completed regularly.

The basis for evidence adopted by the NPD states that efficacy must be established through peer-reviewed results in scientific journals using:

- Randomized or quasi-experimental design studies. (Two high quality experimental or quasi-experimental group design studies)
- Single subject design studies. (Three different investigators or research groups must have conducted five high quality single subject design studies) or
- Combination of evidence. (One high quality randomized or quasi-experimental group design study and three high quality single subject design studies conducted by at least three different investigators or research groups (across the group and single subject design studies))

#### 1. Behavior Strategies:

- a. Prompting: Includes any help given to students to assist them in using a specific skill. Prompts are generally given by an adult or peer before or as a student attempts to use a skill. A variety of prompting procedures may support the student with ASD including least to most prompts (prompting hierarchy), simultaneous prompting using cueing and a controlling prompt, and graduated guidance which includes providing a controlling prompt which is gradually removed during the teaching activity. Different types of prompts may be used

- such as verbal prompts, gestural prompts, model prompts, physical prompts and visual prompts.
- b. Time Delay: Focuses on fading the use of prompts during instructional activities. A brief delay is provided between initial instruction and any additional instructions or prompts.
  - c. Reinforcement: The relationship between behavior and a consequence that follows a behavior and increases the likelihood that a behavior will occur again or be maintained. Positive reinforcement is used to increase appropriate behavior and to teach new skills. Negative reinforcement is the removal of a stimulus after a child uses a target behavior or skill. Again, negative reinforcement increases a learner's use or maintenance of a target behavior. Token economy systems refer to those programs in which tokens are used to acquire a desired reinforcer.
  - d. Task Analysis & Chaining: The analysis of how a task is accomplished, chaining involves the breakdown of a complex behavioral sequence into steps.
  - e. Shaping: The differential reinforcement of successive approximations or attempts.
2. Differential Reinforcement of Other Behaviors: Reinforcement is provided for desired behaviors, inappropriate behaviors are ignored.
  3. Discrete Trial Training: Described elsewhere
  4. Extinction: The withholding of reinforcement for a previously reinforced behavior which decreases the future probability of that behavior.
  5. Functional Behavior Assessment: The systematic practice of analyzing inappropriate or ineffective behaviors or skills to identify appropriate alternatives. Behaviors are analyzed to determine communicative function and to devise a plan to teach appropriate behaviors.
  6. Functional Communication Training: Systematic practice to replace inappropriate behaviors with more appropriate and effective communicative behaviors or skills.
  7. Independent Work Systems: Part of the structured teaching systems; independent work systems are systems that communicate visually to the student: what work he/she is to do, how much work to be completed, when will the student be finished and what happens next. Independent work systems are designed to help a student practice skills independently that he/she has mastered through direct instruction.
  8. Naturalistic Intervention: Is a collection of practices including environmental arrangement, interaction techniques, and behavioral strategies. Naturalistic

intervention is embedded in the student's day-to-day activities and can be taught in learner directed activities, routine activities or planned activities.

9. Parent Training: Teaching parents effective techniques, strategies and procedures that are specific for their child.
10. Peer Mediated Instruction and Intervention: These techniques are used to teach typically developing peers ways to interact with children with ASD to assist them in acquiring new social skills.
11. Picture Exchange Communication Systems: Developed to teach children with ASD to give a picture of a desired object in exchange for the item. There are six phases to PECS instruction: 1) teaching the physically assisted exchange; 2) expanding spontaneity, 3) simultaneous discrimination of pictures, 4) building sentence structure, 5) responding to "what do you want" and 6) commenting in response to a question.
12. Pivotal Response Teaching: Focuses on identification of pivotal areas that when taught will have a positive effect on numerous behaviors. Current areas that have been shown to provide this effect: motivation, social initiation, self – management, responding to multiple/relevant cues and empathy.
13. Positive Behavior Interventions and Support: This process follows functional assessment and involves goal identification, information gathering, hypothesis development, support plan design, implementation and monitoring.
14. Response Interruption and Redirection: Used to decrease interfering behaviors; particularly effective with sensory-maintained behaviors – teachers interrupt the student from engaging in the behaviors and redirect to more appropriate, alternative behaviors.
15. Self-Management: Technique to increase appropriate behavior involves teaching children to be evaluating their own behavior.
16. Social Stories: Use of individualized short stories designed to help the student with ASD interpret challenging or confusing social situations. The stories are written using a specific format and describe a situation in terms of relevant social cues, perspective of others and often suggest an appropriate response.
17. Stimulus Control: An antecedent-based intervention in which environmental modifications are used to change the conditions in the setting that prompt a student with ASD to engage in an interfering behavior. The goal is to identify factors that are reinforcing the interfering behavior and then modify the environment. Stimulus control strategies are often used in conjunction with other evidence based practices such as functional communication training, extinction and reinforcement.

18. Video Modeling: Uses video recording equipment to provide a visual model of the targeted behavior or skill. Basic video modeling involves recording someone other than the student engaged in the targeted behavior to be viewed by the student at another time. Video self-modeling is used to record the student displaying the target behavior or skill. Point of view video modeling is when the target behavior is viewed from the point of view of the student. Video prompting involves breaking the behavior into steps and recording each step so that the student may practice each step at a later time.
19. Visual Supports: Organize visually a sequence of events, improving the student's ability to understand, anticipate and participate in those events. This includes the use of visual schedules, calendars, agendas, etc.
20. Speech Generating Devices: Electronic devices that are portable and can produce either synthetic or digital speech for the student.



# Educational Environment

Students with ASDs are strongly influenced by the environment in which they learn. A variety of environmental and situational factors influence the behavior of all students. Because these variables may even have greater significance for students with ASDs, a conscious effort must be made to carefully analyze the student and his or her environment as an on-going component of the instructional process. Teachers and school staff should take the following environmental and teaching considerations into account when working with students with ASDs.

## Physical Environment

- Physical layout of the classroom should have clear boundaries
- Separate classroom work and play areas
- Keep classroom neat and organized
- Lighting and sound should support learning and not distract the student
- Set up boundaries needed for the student (e.g. reading may need to be taught consistently on a designated carpet)
- Have specific and consistent schedules that allow the student to anticipate and predict activities
- Use visual organizations of scheduled activities to allow the student to use a visual learning modality
- Have routines to carry out daily activities in a systemic and consistent manner
- Assign students seats
- Carpeted classrooms reduce noise and distractions

## Teaching Environment

- Teach social skills to encourage participation in family, school, and community activities
- Conduct frequent reinforcer assessments to ensure that staff have access to the most powerful reinforcer at any given time
- Have a place the student can go to escape classroom stimulation
- Seat the student away from busy areas
- Have the student's desk face away from the window and door
- Determine if you need to speak in a lower voice due to a sound sensitivity
- Consider whether the student requires ear plugs due to a sound sensitivity and/or a visor due to light sensitivity
- Use a predictable routine with an individualized schedule
- Increase independence through the use of concrete clues, including meaningful visual stimuli to help the student figure out what is expected
- Use or design curriculum that is language and communication intensive
- Stimulate socialization and play opportunities
- Use only functional and meaningful tasks
- Teach basic skills before complex skills

# Appendix A: Relevant Special Education Regulations and Definitions

## U.S. DEPARTMENT OF EDUCATION 34 CFR Parts 300 and 301

1. 34 CFR § 300.1 **Act.** *Act* means the Individuals with Disabilities Education Act, as amended.

2. 34 CFR § 300.5 **Assistive Technology device.** *Assistive Technology device* means 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 a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device.

3. 34 CFR § 300.6 **Assistive Technology Service.** *Assistive technology service* means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes—

(a) The evaluation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;

(b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;

(c) Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing assistive technology devices;

(d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;

(e) Training or technical assistance for a child with a disability or, if appropriate, that child's family; and

(f) Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of that child.

4. 34 CFR § 300.8 **Child with a disability.** (a) *General.* (1) *Child with a disability* means a child evaluated in accordance with Sec. Sec. 300.304 through 300.311 as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as "emotional disturbance"), an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services.

(2)(i) Subject to paragraph (a)(2)(ii) of this section, if it is determined, through an appropriate evaluation under Sec. Sec. 300.304 through 300.311, that a child has one of

the disabilities identified in paragraph (a)(1) of this section, but only needs a related service and not special education, the child is not a child with a disability under this part.

(ii) If, consistent with Sec. 300.39(a)(2), the related service required by the child is considered special education rather than a related service under State standards, the child would be determined to be a child with a disability under paragraph (a)(1) of this section.

(b) Children aged three through nine experiencing developmental delays. Child with a disability for children aged three through nine (or any subset of that age range, including ages three through five), may, subject to the conditions described in Sec. 300.111(b), include a child—

(1) Who is experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas: Physical development, cognitive development, communication development, social or emotional development, or adaptive development; and

(2) Who, by reason thereof, needs special education and related services.

(c) Definitions of disability terms. The terms used in this definition of a child with a disability are defined as follows:

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

(ii) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section.

(iii) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.

**5. 34 CFR § 300.9 Consent.** *Consent* means that—

(a) The parent has been fully informed of all information relevant to the activity for which consent is sought, in his or her native language, or other mode of communication;

(b) The parent understands and agrees in writing to the carrying out of the activity for which his or her consent is sought, and the consent describes that activity and lists the records (if any) that will be released and to whom; and

(c)(1) The parent understands that the granting of consent is voluntary on the part of the parent and may be revoked at anytime.

(2) If a parent revokes consent, that revocation is not retroactive (i.e., it does not negate an action that has occurred after the consent was given and before the consent was revoked).

**6. 34 CFR § 300.10 Core academic subjects.** *Core academic subjects* means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

**7. 34 CFR § 300.12 Educational service agency.** *Educational service agency*—

(a) A regional public multiservice agency--

(1) Authorized by State law to develop, manage, and provide services or programs to LEAs;

(2) Recognized as an administrative agency for purposes of the provision of special education and related services provided within public elementary schools and secondary schools of the State;

(b) Includes any other public institution or agency having administrative control and direction over a public elementary school or secondary school; and

(c) Includes entities that meet the definition of intermediate educational unit in section 602(23) of the Act as in effect prior to June 4, 1997.

**8. 34 CFR § 300.14 Equipment.** *Equipment* means—

(a) Machinery, utilities, and built-in equipment, and any necessary enclosures or structures to house the machinery, utilities, or equipment; and

(b) All other items necessary for the functioning of a particular facility as a facility for the provision of educational services, including items such as instructional equipment and necessary furniture; printed, published and audio-visual instructional materials; telecommunications, sensory, and other technological aids and devices; and books, periodicals, documents, and other related materials.

**9. 34 CFR § 300.15 Evaluation.** *Evaluation* means Evaluation means procedures used in accordance with Sec. 300.304 through 300.311 to determine whether a child has a disability and the nature and extent of the special education and related services that the child needs.

**10. 34 CFR § 300.17 Free appropriate public education.** *Free appropriate public education* or *FAPE* means special education and related services that—

(a) Are provided at public expense, under public supervision and direction, and without charge;

(b) Meet the standards of the SEA, including the requirements of this part;

(c) Include an appropriate preschool, elementary school, or secondary school education in the State involved; and

(d) Are provided in conformity with an individualized education program (IEP) that meets the requirements of Sec. Sec. 300.320 through 300.324.

**11. 34 CFR § 300.18 Highly qualified special education teachers.**

(a) *Requirements for special education teachers teaching core academic subjects.* For any public elementary or secondary school special education teacher teaching core academic subjects, the term highly qualified has the meaning given the term in section 9101 of the ESEA and 34 CFR 200.56, except that the requirements for highly qualified also—

(1) Include the requirements described in paragraph (b) of this section; and

(2) Include the option for teachers to meet the requirements of section 9101 of the ESEA by meeting the requirements of paragraphs (c) and (d) of this section.

(b) Requirements for special education teachers in general. (1) When used with respect to any public elementary school or secondary school special education teacher teaching in a State, highly qualified requires that--



(i) The teacher has obtained full State certification as a special education teacher (including certification obtained through alternative routes to certification), or passed the State special education teacher licensing examination, and holds a license to teach in the State as a special education teacher, except that when used with respect to any teacher teaching in a public charter school, highly qualified means that the teacher meets the certification or licensing requirements, if any, set forth in the State's public charter school law;

(ii) The teacher has not had special education certification or licensure requirements waived on an emergency, temporary, or provisional basis; and

(iii) The teacher holds at least a bachelor's degree.

(2) A teacher will be considered to meet the standard in paragraph (b)(1)(i) of this section if that teacher is participating in an alternative route to special education certification program under which--

(i) The teacher—

(A) Receives high-quality professional development that is sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction, before and while teaching;

(B) Participates in a program of intensive supervision that consists of structured guidance and regular ongoing support for teachers or a teacher mentoring program;

(C) Assumes functions as a teacher only for a specified period of time not to exceed three years; and

(D) Demonstrates satisfactory progress toward full certification as prescribed by the State; and

(ii) The State ensures, through its certification and licensure process, that the provisions in paragraph (b)(2)(i) of this section are met.

(3) Any public elementary school or secondary school special education teacher teaching in a State, who is not teaching a core academic subject, is highly qualified if the teacher meets the requirements in paragraph (b)(1) or the requirements in (b)(1)(iii) and (b)(2) of this section.

(c) Requirements for special education teachers teaching to alternate academic achievement standards. When used with respect to a special education teacher who teaches core academic subjects exclusively to children who are assessed against alternate academic achievement standards established under 34 CFR 200.1(d), highly qualified means the teacher, whether new or not new to the profession, may either--

(1) Meet the applicable requirements of section 9101 of the ESEA and 34 CFR 200.56 for any elementary, middle, or secondary school teacher who is new or not new to the profession; or

(2) Meet the requirements of paragraph (B) or (C) of section 9101(23) of the ESEA as applied to an elementary school teacher, or, in the case of instruction above the elementary level, meet the requirements of paragraph (B) or (C) of section 9101(23) of the ESEA as applied to an elementary school teacher and have subject matter knowledge appropriate to the level of instruction being provided and needed to effectively teach to those alternative academic achievement standards, as determined by the State.

(d) Requirements for special education teachers teaching multiple subjects. Subject to paragraph (e) of this section, when used with respect to a special education teacher who

teaches two or more core academic subjects exclusively to children with disabilities, highly qualified means that the teacher may either--

(1) Meet the applicable requirements of section 9101 of the ESEA and 34 CFR 200.56(b) or (c);

(2) In the case of a teacher who is not new to the profession, demonstrate competence in all the core academic subjects in which the teacher teaches in the same manner as is required for an elementary, middle, or secondary school teacher who is not new to the profession under 34 CFR 200.56(c) which may include a single, high objective uniform State standard of evaluation (HOUSSE) covering multiple subjects; or

(3) In the case of a new special education teacher who teaches multiple subjects and who is highly qualified in mathematics, language arts, or science, demonstrate, not later than two years after the date of employment, competence in the other core academic subjects in which the teacher teaches in the same manner as is required for an elementary, middle, or secondary school teacher under 34 CFR 200.56(c), which may include a single HOUSSE covering multiple subjects.

(e) Separate HOUSSE standards for special education teachers. Provided that any adaptations of the State's HOUSSE would not establish a lower standard for the content knowledge requirements for special education teachers and meet all the requirements for a HOUSSE for regular education teachers--

(1) A State may develop a separate HOUSSE for special education teachers; and

(2) The standards described in paragraph (e)(1) of this section may include single HOUSSE evaluations that cover multiple subjects.

(f) Rule of construction. Notwithstanding any other individual right of action that a parent or student may maintain under this part, nothing in this part shall be construed to create a right of action on behalf of an individual student or class of students for the failure of a particular SEA or LEA employee to be highly qualified, or to prevent a parent from filing a complaint under Sec. Sec. 300.151 through 300.153 about staff qualifications with the SEA as provided for under this part.

(g) Applicability of definition to ESEA; and clarification of new special education teacher. (1) A teacher who is highly qualified under this section is considered highly qualified for purposes of the ESEA.

(2) For purposes of Sec. 300.18(d)(3), a fully certified regular education teacher who subsequently becomes fully certified or licensed as a special education teacher is a new special education teacher when first hired as a special education teacher.

(h) Private school teachers not covered. The requirements in this section do not apply to teachers hired by private elementary schools and secondary schools including private school teachers hired or contracted by LEAs to provide equitable services to parentally-placed private school children with disabilities under Sec. 300.138.

**12. 34 CFR § 300.22 Individualized education program.** *Individualized education program* or IEP means a written statement for a child with a disability that is developed, reviewed, and revised in accordance with Sec. Sec. 300.320 through 300.324

**13. 34 CFR § 300.24 Individualized family service plan.** *Individualized family service plan* or IFSP has the meaning given the term in section 636 of the Act.

**14. 34 CFR § 300.28 Local educational agency.** *Local educational agency* or *LEA* means a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary or secondary schools in a city, county, township, school district, or other political subdivision of a State, or for a combination of school districts or counties as are recognized in a State as an administrative agency for its public elementary schools or secondary schools.

(b) Educational service agencies and other public institutions or agencies. The term includes—

(1) An educational service agency, as defined in Sec. 300.12; and

(2) Any other public institution or agency having administrative control and direction of a public elementary school or secondary school, including a public nonprofit charter school that is established as an LEA under State law.

(c) BIA funded schools. The term includes an elementary school or secondary school funded by the Bureau of Indian Affairs, and not subject to the jurisdiction of any SEA other than the Bureau of Indian Affairs, but only to the extent that the inclusion makes the school eligible for programs for which specific eligibility is not provided to the school in another provision of law and the school does not have a student population that is smaller than the student population of the LEA receiving assistance under the Act with the smallest student population.

**15. 34 CFR § 300.30 Parent.**

(a) *Parent means*—

(1) A biological or adoptive parent of a child;

(2) A foster parent, unless State law, regulations, or contractual obligations with a State or local entity prohibit a foster parent from acting as a parent;

(3) A guardian generally authorized to act as the child's parent, or authorized to make educational decisions for the child (but not the State if the child is a ward of the State);

(4) An individual acting in the place of a biological or adoptive parent (including a grandparent, stepparent, or other relative) with whom the child lives, or an individual who is legally responsible for the child's welfare; or

(5) A surrogate parent who has been appointed in accordance with Sec. 300.519 or section 639(a)(5) of the Act.

(b) (1) Except as provided in paragraph (b)(2) of this section, the biological or adoptive parent, when attempting to act as the parent under this part and when more than one party is qualified under paragraph (a) of this section to act as a parent, must be presumed to be the parent for purposes of this section unless the biological or adoptive parent does not have legal authority to make educational decisions for the child.

(2) If a judicial decree or order identifies a specific person or persons under paragraphs (a)(1) through (4) of this section to act as the "parent" of a child or to make educational decisions on behalf of a child, then such person or persons shall be determined to be the "parent" for purposes of this section.

**16. 34 CFR § 300.32 Personally identifiable.**

*Personally identifiable* means information that contains--

(a) The name of the child, the child's parent, or other family member;

- (b) The address of the child;
  - (c) A personal identifier, such as the child's social security number or student number;
- or
- (d) A list of personal characteristics or other information that would make it possible to identify the child with reasonable certainty.

**17. 34 CFR § 300.33 Public agency.**

*Public agency* includes the SEA, LEAs, ESAs, nonprofit public charter schools that are not otherwise included as LEAs or ESAs and are not a school of an LEA or ESA, and any other political subdivisions of the State that are responsible for providing education to children with disabilities.

**18. 34 CFR § 300.34 Related services.**

(a) *General. Related services* means transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education, and includes speech-language pathology and audiology services, interpreting services, psychological services, physical and occupational therapy, recreation, including therapeutic recreation, early identification and assessment of disabilities in children, counseling services, including rehabilitation counseling, orientation and mobility services, and medical services for diagnostic or evaluation purposes. Related services also include school health services and school nurse services, social work services in schools, and parent counseling and training.

(b) Exception; services that apply to children with surgically implanted devices, including cochlear implants.

(1) Related services do not include a medical device that is surgically implanted, the optimization of that device's functioning (e.g., mapping), maintenance of that device, or the replacement of that device.

(2) Nothing in paragraph (b)(1) of this section--

(i) Limits the right of a child with a surgically implanted device (e.g., cochlear implant) to receive related services (as listed in paragraph (a) of this section) that are determined by the IEP Team to be necessary for the child to receive FAPE.

(ii) Limits the responsibility of a public agency to appropriately monitor and maintain medical devices that are needed to maintain the health and safety of the child, including breathing, nutrition, or operation of other bodily functions, while the child is transported to and from school or is at school; or

(iii) Prevents the routine checking of an external component of a surgically implanted device to make sure it is functioning properly, as required in Sec. 300.113(b).

(c) Individual related services terms defined. The terms used in this definition are defined as follows:

(1) Audiology includes--

(i) Identification of children with hearing loss;

(ii) Determination of the range, nature, and degree of hearing loss, including referral for medical or other professional attention for the habilitation of hearing;

(iii) Provision of habilitative activities, such as language habilitation, auditory training, speech reading (lip-reading), hearing evaluation, and speech conservation;

(iv) Creation and administration of programs for prevention of hearing loss;

(v) Counseling and guidance of children, parents, and teachers regarding hearing loss; and

(vi) Determination of children's needs for group and individual amplification, selecting and fitting an appropriate aid, and evaluating the effectiveness of amplification.

(2) Counseling services means services provided by qualified social workers, psychologists, guidance counselors, or other qualified personnel.

(3) Early identification and assessment of disabilities in children means the implementation of a formal plan for identifying a disability as early as possible in a child's life.

(4) Interpreting services includes--

(i) The following, when used with respect to children who are deaf or hard of hearing: Oral transliteration services, cued language transliteration services, sign language transliteration and interpreting services, and transcription services, such as communication access real-time translation (CART), C-Print, and TypeWell; and

(ii) Special interpreting services for children who are deaf-blind.

(5) Medical services means services provided by a licensed physician to determine a child's medically related disability that results in the child's need for special education and related services.

(6) Occupational therapy—

(i) Means services provided by a qualified occupational therapist; and

(ii) Includes--

(A) Improving, developing, or restoring functions impaired or lost through illness, injury, or deprivation;

(B) Improving ability to perform tasks for independent functioning if functions are impaired or lost; and

(C) Preventing, through early intervention, initial or further impairment or loss of function.

(7) Orientation and mobility services—

(i) Means services provided to blind or visually impaired children by qualified personnel to enable those students to attain systematic orientation to and safe movement within their environments in school, home, and community; and

(ii) Includes teaching children the following, as appropriate:

(A) Spatial and environmental concepts and use of information received by the senses (such as sound, temperature and vibrations) to establish, maintain, or regain orientation and line of travel (e.g., using sound at a traffic light to cross the street);

(B) To use the long cane or a service animal to supplement visual travel skills or as a tool for safely negotiating the environment for children with no available travel vision;

(C) To understand and use remaining vision and distance low vision aids; and

(D) Other concepts, techniques, and tools.

(8)(i) Parent counseling and training means assisting parents in understanding the special needs of their child;

(ii) Providing parents with information about child development; and

(iii) Helping parents to acquire the necessary skills that will allow them to support the implementation of their child's IEP or IFSP.

(9) Physical therapy means services provided by a qualified physical therapist.

(10) Psychological services includes--

(i) Administering psychological and educational tests, and other assessment procedures;

(ii) Interpreting assessment results;

(iii) Obtaining, integrating, and interpreting information about child behavior and conditions relating to learning;

(iv) Consulting with other staff members in planning school programs to meet the special educational needs of children as indicated by psychological tests, interviews, direct observation, and behavioral evaluations;

(v) Planning and managing a program of psychological services, including psychological counseling for children and parents; and

(vi) Assisting in developing positive behavioral intervention strategies.

(11) Recreation includes--

(i) Assessment of leisure function;

(ii) Therapeutic recreation services;

(iii) Recreation programs in schools and community agencies; and

(iv) Leisure education.

(12) Rehabilitation counseling services means services provided by qualified personnel in individual or group sessions that focus specifically on career development, employment preparation, achieving independence, and integration in the workplace and community of a student with a disability. The term also includes vocational rehabilitation services provided to a student with a disability by vocational rehabilitation programs funded under the Rehabilitation Act of 1973, as amended, 29 U.S.C. 701 et seq.

(13) School health services and school nurse services means health services that are designed to enable a child with a disability to receive FAPE as described in the child's IEP. School nurse services are services provided by a qualified school nurse. School health services are services that may be provided by either a qualified school nurse or other qualified person.

(14) Social work services in schools includes--

(i) Preparing a social or developmental history on a child with a disability;

(ii) Group and individual counseling with the child and family;

(iii) Working in partnership with parents and others on those problems in a child's living situation (home, school, and community) that affect the child's adjustment in school;

(iv) Mobilizing school and community resources to enable the child to learn as effectively as possible in his or her educational program; and

(v) Assisting in developing positive behavioral intervention strategies.

(15) Speech-language pathology services includes--

(i) Identification of children with speech or language impairments;

(ii) Diagnosis and appraisal of specific speech or language impairments;

(iii) Referral for medical or other professional attention necessary for the habilitation of speech or language impairments;

(iv) Provision of speech and language services for the habilitation or prevention of communicative impairments; and

(v) Counseling and guidance of parents, children, and teachers regarding speech and language impairments.

(16) Transportation includes--

- (i) Travel to and from school and between schools;
- (ii) Travel in and around school buildings; and
- (iii) Specialized equipment (such as special or adapted buses, lifts, and ramps), if required to provide special transportation for a child with a disability.

**19. 34 CFR § 300.35 Scientifically based research.**

*Scientifically based research* has the meaning given the term in section 9101(37) of the ESEA.

**20. 34 CFR § 300.37 Services plan.**

*Services plan* means a written statement that describes the special education and related services the LEA will provide to a parentally-placed child with a disability enrolled in a private school who has been designated to receive services, including the location of the services and any transportation necessary, consistent with Sec. 300.132, and is developed and implemented in accordance with Sec. Sec. 300.137 through 300.139.

**21. 34 CFR § 300.39 Special education.**

(a) *General.* (1) *Special education* means specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability, including--

(i) Instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings; and

(ii) Instruction in physical education.

(2) Special education includes each of the following, if the services otherwise meet the requirements of paragraph (a)(1) of this section--

(i) Speech-language pathology services, or any other related service, if the service is considered special education rather than a related service under State standards;

(ii) Travel training; and

(iii) Vocational education.

(b) Individual special education terms defined. The terms in this definition are defined as follows:

(1) At no cost means that all specially-designed instruction is provided without charge, but does not preclude incidental fees that are normally charged to nondisabled students or their parents as a part of the regular education program.

(2) Physical education means--

(i) The development of--

(A) Physical and motor fitness;

(B) Fundamental motor skills and patterns; and

(C) Skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports); and

(ii) Includes special physical education, adapted physical education, movement education, and motor development.

(3) Specially designed instruction means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction--

(i) To address the unique needs of the child that result from the child's disability; and

(ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children.

(4) Travel training means providing instruction, as appropriate, to children with significant cognitive disabilities, and any other children with disabilities who require this instruction, to enable them to--

(i) Develop an awareness of the environment in which they live; and

(ii) Learn the skills necessary to move effectively and safely from place to place within that environment (e.g., in school, in the home, at work, and in the community).

(5) Vocational education means organized educational programs that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career not requiring a baccalaureate or advanced degree.

**22. 34 CFR § 300.41 State educational agency.**

*State educational agency* or *SEA* means the State board of education or other agency or officer primarily responsible for the State supervision of public elementary schools and secondary schools, or, if there is no such officer or agency, an officer or agency designated by the Governor or by State law.

**23. 34 CFR § 300.42 Supplementary aids and services.**

*Supplementary aids* and *services* means aids, services, and other supports that are provided in regular education classes, other education-related settings, and in extracurricular and nonacademic settings, to enable children with disabilities to be educated with nondisabled children to the maximum extent appropriate in accordance with Sec. Sec. 300.114 through 300.116.

**24. 34 CFR § 300.101 Free appropriate public education (FAPE).**

a) General. *A free appropriate public education* must be available to all children residing in the State between the ages of 3 and 21, inclusive, including children with disabilities who have been suspended or expelled from school, as provided for in Sec. 300.530(d).

(b) FAPE for children beginning at age

3. (1) Each State must ensure that--

(i) The obligation to make FAPE available to each eligible child residing in the State begins no later than the child's third birthday; and

(ii) An IEP or an IFSP is in effect for the child by that date, in accordance with Sec. 300.323(b).

(2) If a child's third birthday occurs during the summer, the child's IEP Team shall determine the date when services under the IEP or IFSP will begin.

(c) Children advancing from grade to grade. (1) Each State must ensure that FAPE is available to any individual child with a disability who needs special education and related services, even though the child has not failed or been retained in a course or grade, and is advancing from grade to grade.

(2) The determination that a child described in paragraph (a) of this section is eligible under this part, must be made on an individual basis by the group responsible within the child's LEA for making eligibility determinations.



**25. 34 CFR § 300.112 Individualized education program (IEP).**

The State must ensure that an IEP, or an IFSP that meets the requirements of section 636(d) of the Act, is developed, reviewed, and revised for each child with a disability in accordance with Sec. Sec. 300.320 through 300.324, except as provided in Sec. 300.300(b)(3)(ii).

**26. 34 CFR § 300.114 Least Restrictive Environment (LRE) requirements.**

(a) *General.* (1) Except as provided in Sec. 300.324(d)(2) (regarding children with disabilities in adult prisons), the State must have in effect policies and procedures to ensure that public agencies in the State meet the LRE requirements of this section and Sec. Sec. 300.115 through 300.120.

(2) Each public agency must ensure that--

(i) To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled; and

(ii) Special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

(b) Additional requirement--State funding mechanism--(1) *General.* (i) A State funding mechanism must not result in placements that violate the requirements of paragraph (a) of this section; and

(ii) A State must not use a funding mechanism by which the State distributes funds on the basis of the type of setting in which a child is served that will result in the failure to provide a child with a disability FAPE according to the unique needs of the child, as described in the child's IEP.

(2) *Assurance.* If the State does not have policies and procedures to ensure compliance with paragraph (b)(1) of this section, the State must provide the Secretary an assurance that the State will revise the funding mechanism as soon as feasible to ensure that the mechanism does not result in placements that violate that paragraph.

**27. 34 CFR § 300.300 Parental consent.**

(a) *Parental consent* for initial evaluation. (1)(i) The public agency proposing to conduct an initial evaluation to determine if a child qualifies as a child with a disability under Sec. 300.8 must, after providing notice consistent with Sec. Sec. 300.503 and 300.504, obtain informed consent, consistent with Sec. 300.9, from the parent of the child before conducting the evaluation.

(ii) Parental consent for initial evaluation must not be construed as consent for initial provision of special education and related services.

(iii) The public agency must make reasonable efforts to obtain the informed consent from the parent for an initial evaluation to determine whether the child is a child with a disability.

(2) For initial evaluations only, if the child is a ward of the State and is not residing with the child's parent, the public agency is not required to obtain informed consent from the parent for an initial evaluation to determine whether the child is a child with a disability if--

- (i) Despite reasonable efforts to do so, the public agency cannot discover the whereabouts of the parent of the child;
  - (ii) The rights of the parents of the child have been terminated in accordance with State law; or
  - (iii) The rights of the parent to make educational decisions have been subrogated by a judge in accordance with State law and consent for an initial evaluation has been given by an individual appointed by the judge to represent the child.
- (3)(i) If the parent of a child enrolled in public school or seeking to be enrolled in public school does not provide consent for initial evaluation under paragraph (a)(1) of this section, or the parent fails to respond to a request to provide consent, the public agency may, but is not required to, pursue the initial evaluation of the child by utilizing the procedural safeguards in subpart E of this part (including the mediation procedures under Sec. 300.506 or the due process procedures under Sec. Sec. 300.507 through 300.516), if appropriate, except to the extent inconsistent with State law relating to such parental consent.
- (ii) The public agency does not violate its obligation under Sec. 300.111 and Sec. Sec. 300.301 through 300.311 if it declines to pursue the evaluation.
- (b) Parental consent for services. (1) A public agency that is responsible for making FAPE available to a child with a disability must obtain informed consent from the parent of the child before the initial provision of special education and related services to the child.
- (2) The public agency must make reasonable efforts to obtain informed consent from the parent for the initial provision of special education and related services to the child.
- (3) If the parent of a child fails to respond or refuses to consent to services under paragraph (b)(1) of this section, the public agency may not use the procedures in subpart E of this part (including the mediation procedures under Sec. 300.506 or the due process procedures under Sec. Sec. 300.507 through 300.516) in order to obtain agreement or a ruling that the services may be provided to the child.
- (4) If the parent of the child refuses to consent to the initial provision of special education and related services, or the parent fails to respond to a request to provide consent for the initial provision of special education and related services, the public agency--
- (i) Will not be considered to be in violation of the requirement to make available FAPE to the child for the failure to provide the child with the special education and related services for which the public agency requests consent; and
  - (ii) Is not required to convene an IEP Team meeting or develop an IEP under Sec. Sec. 300.320 and 300.324 for the child for the special education and related services for which the public agency requests such consent.
- (c) Parental consent for reevaluations. (1) Subject to paragraph (c)(2) of this section, each public agency--
- (i) Must obtain informed parental consent, in accordance with Sec. 300.300(a)(1), prior to conducting any reevaluation of a child with a disability.
  - (ii) If the parent refuses to consent to the reevaluation, the public agency may, but is not required to, pursue the reevaluation by using the consent override procedures described in paragraph (a)(3) of this section.

(iii) The public agency does not violate its obligation under Sec. 300.111 and Sec. 300.301 through 300.311 if it declines to pursue the evaluation or reevaluation.

(2) The informed parental consent described in paragraph (c)(1) of this section need not be obtained if the public agency can demonstrate that--

(i) It made reasonable efforts to obtain such consent; and

(ii) The child's parent has failed to respond.

(d) Other consent requirements.

(1) Parental consent is not required before--

(i) Reviewing existing data as part of an evaluation or a reevaluation; or

(ii) Administering a test or other evaluation that is administered to all children unless, before administration of that test or evaluation, consent is required of parents of all children.

(2) In addition to the parental consent requirements described in paragraph (a) of this section, a State may require parental consent for other services and activities under this part if it ensures that each public agency in the State establishes and implements effective procedures to ensure that a parent's refusal to consent does not result in a failure to provide the child with FAPE.

(3) A public agency may not use a parent's refusal to consent to one service or activity under paragraphs (a) or (d)(2) of this section to deny the parent or child any other service, benefit, or activity of the public agency, except as required by this part.

(4)(i) If a parent of a child who is home schooled or placed in a private school by the parents at their own expense does not provide consent for the initial evaluation or the reevaluation, or the parent fails to respond to a request to provide consent, the public agency may not use the consent override procedures (described in paragraphs (a)(3) and (c)(1) of this section); and

(ii) The public agency is not required to consider the child as eligible for services under Sec. Sec. 300.132 through 300.144.

(5) To meet the reasonable efforts requirement in paragraphs (a)(1)(iii), (a)(2)(i), (b)(2), and (c)(2)(i) of this section, the public agency must document its attempts to obtain parental consent using the procedures in Sec. 300.322(d).

## **28. 34 CFR § 300.306 Determination of eligibility.**

(a) *General.* Upon completion of the administration of assessments and other evaluation measures--

(1) A group of qualified professionals and the parent of the child determines whether the child is a child with a disability, as defined in Sec. 300.8, in accordance with paragraph (b) of this section and the educational needs of the child; and

(2) The public agency provides a copy of the evaluation report and the documentation of determination of eligibility at no cost to the parent.

(b) *Special rule for eligibility determination.* A child must not be determined to be a child with a disability under this part--

(1) If the determinant factor for that determination is--

(i) Lack of appropriate instruction in reading, including the essential components of reading instruction (as defined in section 1208(3) of the ESEA);

(ii) Lack of appropriate instruction in math; or

(iii) Limited English proficiency; and

(2) If the child does not otherwise meet the eligibility criteria under Sec. 300.8(a).

(c) Procedures for determining eligibility and educational need. (1) In interpreting evaluation data for the purpose of determining if a child is a child with a disability under Sec. 300.8, and the educational needs of the child, each public agency must--

(i) Draw upon information from a variety of sources, including aptitude and achievement tests, parent input, and teacher recommendations, as well as information about the child's physical condition, social or cultural background, and adaptive behavior; and

(ii) Ensure that information obtained from all of these sources is documented and carefully considered.

(2) If a determination is made that a child has a disability and needs special education and related services, an IEP must be developed for the child in accordance with Sec. Sec. 300.320 through 300.324.

**29. 34 CFR § 300.307 Specific learning disabilities.**

(a) *General.* A State must adopt, consistent with Sec. 300.309, criteria for determining whether a child has a specific learning disability as defined in Sec. 300.8(c)(10). In addition, the criteria adopted by the State--

(1) Must not require the use of a severe discrepancy between intellectual ability and achievement for determining whether a child has a specific learning disability, as defined in Sec. 300.8(c)(10);

(2) Must permit the use of a process based on the child's response to scientific, research-based intervention; and

(3) May permit the use of other alternative research-based procedures for determining whether a child has a specific learning disability, as defined in Sec. 300.8(c)(10).

(b) *Consistency with State criteria.* A public agency must use the State criteria adopted pursuant to paragraph (a) of this section in determining whether a child has a specific learning disability.

**30. 34 CFR § 300.308 Additional group members.**

The determination of whether a child suspected of having a specific learning disability is a child with a disability as defined in Sec. 300.8, must be made by the child's parents and a team of qualified professionals, which must include--

(a)(1) The child's regular teacher; or

(2) If the child does not have a regular teacher, a regular classroom teacher qualified to teach a child of his or her age; or

(3) For a child of less than school age, an individual qualified by the SEA to teach a child of his or her age; and

(b) At least one person qualified to conduct individual diagnostic examinations of children, such as a school psychologist, speech-language pathologist, or remedial reading teacher.

**31. 34 CFR § 300.309 Determining the existence of a specific learning disability.**

(a) The group described in Sec. 300.306 may determine that a child has a specific learning disability, as defined in Sec. 300.8(c)(10), if--

(1) The child does not achieve adequately for the child's age or to meet State-approved grade-level standards in one or more of the following areas, when provided with learning experiences and instruction appropriate for the child's age or State-approved grade-level standards:

- (i) Oral expression.
- (ii) Listening comprehension.
- (iii) Written expression.
- (iv) Basic reading skill.
- (v) Reading fluency skills.
- (vi) Reading comprehension.
- (vii) Mathematics calculation.
- (viii) Mathematics problem solving.

(2)(i) The child does not make sufficient progress to meet age or State-approved grade-level standards in one or more of the areas identified in paragraph (a)(1) of this section when using a process based on the child's response to scientific, research-based intervention; or

(ii) The child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age, State-approved grade-level standards, or intellectual development, that is determined by the group to be relevant to the identification of a specific learning disability, using appropriate assessments, consistent with Sec. Sec. 300.304 and 300.305; and

(3) The group determines that its findings under paragraphs (a)(1) and (2) of this section are not primarily the result of--

- (i) A visual, hearing, or motor disability;
- (ii) Mental retardation;
- (iii) Emotional disturbance;
- (iv) Cultural factors;
- (v) Environmental or economic disadvantage; or
- (vi) Limited English proficiency.

(b) To ensure that underachievement in a child suspected of having a specific learning disability is not due to lack of appropriate instruction in reading or math, the group must consider, as part of the evaluation described in Sec. Sec. 300.304 through 300.306--

(1) Data that demonstrate that prior to, or as a part of, the referral process, the child was provided appropriate instruction in regular education settings, delivered by qualified personnel; and

(2) Data-based documentation of repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction, which was provided to the child's parents.

(c) The public agency must promptly request parental consent to evaluate the child to determine if the child needs special education and related services, and must adhere to the timeframes described in Sec. Sec. 300.301 and 300.303, unless extended by mutual written agreement of the child's parents and a group of qualified professionals, as described in Sec. 300.306(a)(1)--

(1) If, prior to a referral, a child has not made adequate progress after an appropriate period of time when provided instruction, as described in paragraphs (b)(1) and (b)(2) of this section; and

(2) Whenever a child is referred for an evaluation.

**32. 34 CFR § 300.310 Observation.**

(a) The public agency must ensure that the child is observed in the child's learning environment (including the regular classroom setting) to document the child's academic performance and behavior in the areas of difficulty.

(b) The group described in Sec. 300.306(a)(1), in determining whether a child has a specific learning disability, must decide to--

(1) Use information from an observation in routine classroom instruction and monitoring of the child's performance that was done before the child was referred for an evaluation; or

(2) Have at least one member of the group described in Sec. 300.306(a)(1) conduct an observation of the child's academic performance in the regular classroom after the child has been referred for an evaluation and parental consent, consistent with Sec. 300.300(a), is obtained.

(c) In the case of a child of less than school age or out of school, a group member must observe the child in an environment appropriate for a child of that age.

**33. 34 CFR § 300.311 Specific documentation for the eligibility determination.**

(a) For a child suspected of having a specific learning disability, the documentation of the determination of eligibility, as required in Sec. 300.306(a)(2), must contain a statement of--

(1) Whether the child has a specific learning disability;

(2) The basis for making the determination, including an assurance that the determination has been made in accordance with Sec. 300.306(c)(1);

(3) The relevant behavior, if any, noted during the observation of the child and the relationship of that behavior to the child's academic functioning;

(4) The educationally relevant medical findings, if any;

(5) Whether--

(i) The child does not achieve adequately for the child's age or to meet State-approved grade-level standards consistent with Sec. 300.309(a)(1); and

(ii)(A) The child does not make sufficient progress to meet age or State-approved grade-level standards consistent with Sec. 300.309(a)(2)(i); or

(B) The child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age, State-approved grade level standards or intellectual development consistent with Sec. 300.309(a)(2)(ii);

(6) The determination of the group concerning the effects of a visual, hearing, or motor disability; mental retardation; emotional disturbance; cultural factors; environmental or economic disadvantage; or limited English proficiency on the child's achievement level; and

(7) If the child has participated in a process that assesses the child's response to scientific, research-based intervention--

(i) The instructional strategies used and the student-centered data collected; and

(ii) The documentation that the child's parents were notified about--

(A) The State's policies regarding the amount and nature of student performance data that would be collected and the general education services that would be provided;

- (B) Strategies for increasing the child's rate of learning; and
- (C) The parents' right to request an evaluation.

(b) Each group member must certify in writing whether the report reflects the member's conclusion. If it does not reflect the member's conclusion, the group member must submit a separate statement presenting the member's conclusions.

**34. 34 CFR § 300.320 Definition of individualized education program.**

(a) General. As used in this part, the term individualized education program or IEP means a written statement for each child with a disability that is developed, reviewed, and revised in a meeting in accordance with Sec. Sec. 300.320 through 300.324, and that must include--

(1) A statement of the child's present levels of academic achievement and functional performance, including--

(i) How the child's disability affects the child's involvement and progress in the general education curriculum (i.e., the same curriculum as for nondisabled children); or

(ii) For preschool children, as appropriate, how the disability affects the child's participation in appropriate activities;

(2)(i) A statement of measurable annual goals, including academic and functional goals designed to--

(A) Meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum; and

(B) Meet each of the child's other educational needs that result from the child's disability;

(ii) For children with disabilities who take alternate assessments aligned to alternate achievement standards, a description of benchmarks or short-term objectives;

(3) A description of--

(i) How the child's progress toward meeting the annual goals described in paragraph (2) of this section will be measured; and

(ii) When periodic reports on the progress the child is making toward meeting the annual goals (such as through the use of quarterly or other periodic reports, concurrent with the issuance of report cards) will be provided;

(4) A statement of the special education and related services and supplementary aids and services, based on peer-reviewed research to the extent practicable, to be provided to the child, or on behalf of the child, and a statement of the program modifications or supports for school personnel that will be provided to enable the child--

(i) To advance appropriately toward attaining the annual goals;

(ii) To be involved in and make progress in the general education curriculum in accordance with paragraph (a)(1) of this section, and to participate in extracurricular and other nonacademic activities; and

(iii) To be educated and participate with other children with disabilities and nondisabled children in the activities described in this section;

(5) An explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in the activities described in paragraph (a)(4) of this section;

(6)(i) A statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child on State and

districtwide assessments consistent with section 612(a)(16) of the Act; and (ii) If the IEP Team determines that the child must take an alternate assessment instead of a particular regular State or districtwide assessment of student achievement, a statement of why--

(A) The child cannot participate in the regular assessment; and

(B) The particular alternate assessment selected is appropriate for the child; and

(7) The projected date for the beginning of the services and modifications described in paragraph (a)(4) of this section, and the anticipated frequency, location, and duration of those services and modifications.

(b) Transition services. Beginning not later than the first IEP to be in effect when the child turns 16, or younger if determined appropriate by the IEP Team, and updated annually, thereafter, the IEP must include--

(1) Appropriate measurable postsecondary goals based upon age appropriate transition assessments related to training, education, employment, and, where appropriate, independent living skills; and

(2) The transition services (including courses of study) needed to assist the child in reaching those goals.

(c) Transfer of rights at age of majority. Beginning not later than one year before the child reaches the age of majority under State law, the IEP must include a statement that the child has been informed of the child's rights under Part B of the Act, if any, that will transfer to the child on reaching the age of majority under Sec. 300.520.

(d) Construction. Nothing in this section shall be construed to require--

(1) That additional information be included in a child's IEP beyond what is explicitly required in section 614 of the Act; or

(2) The IEP Team to include information under one component of a child's IEP that is already contained under another component of the child's IEP.

### **35. 34 CFR § 300.321 IEP Team.**

(a) General. The public agency must ensure that the IEP Team for each child with a disability includes--

(1) The parents of the child;

(2) Not less than one regular education teacher of the child (if the child is, or may be, participating in the regular education environment);

(3) Not less than one special education teacher of the child, or where appropriate, not less than one special education provider of the child;

(4) A representative of the public agency who--

(i) Is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities;

(ii) Is knowledgeable about the general education curriculum; and

(iii) Is knowledgeable about the availability of resources of the public agency.

(5) An individual who can interpret the instructional implications of evaluation results, who may be a member of the team described in paragraphs (a)(2) through (a)(6) of this section;

(6) At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and



(7) Whenever appropriate, the child with a disability.

(b) Transition services participants.

(1) In accordance with paragraph (a)(7) of this section, the public agency must invite a child with a disability to attend the child's IEP Team meeting if a purpose of the meeting will be the consideration of the postsecondary goals for the child and the transition services needed to assist the child in reaching those goals under Sec. 300.320(b).

(2) If the child does not attend the IEP Team meeting, the public agency must take other steps to ensure that the child's preferences and interests are considered.

(3) To the extent appropriate, with the consent of the parents or a child who has reached the age of majority, in implementing the requirements of paragraph (b)(1) of this section, the public agency must invite a representative of any participating agency that is likely to be responsible for providing or paying for transition services.

(c) Determination of knowledge and special expertise. The determination of the knowledge or special expertise of any individual described in paragraph (a)(6) of this section must be made by the party (parents or public agency) who invited the individual to be a member of the IEP Team.

(d) Designating a public agency representative. A public agency may designate a public agency member of the IEP Team to also serve as the agency representative, if the criteria in paragraph (a)(4) of this section are satisfied.

(e) IEP Team attendance. (1) A member of the IEP Team described in paragraphs (a)(2) through (a)(5) of this section is not required to attend an IEP Team meeting, in whole or in part, if the parent of a child with a disability and the public agency agree, in writing, that the attendance of the member is not necessary because the member's area of the curriculum or related services is not being modified or discussed in the meeting.

(2) A member of the IEP Team described in paragraph (e)(1) of this section may be excused from attending an IEP Team meeting, in whole or in part, when the meeting involves a modification to or discussion of the member's area of the curriculum or related services, if--

(i) The parent, in writing, and the public agency consent to the excusal; and

(ii) The member submits, in writing to the parent and the IEP Team, input into the development of the IEP prior to the meeting.

(f) Initial IEP Team meeting for child under Part C. In the case of a child who was previously served under Part C of the Act, an invitation to the initial IEP Team meeting must, at the request of the parent, be sent to the Part C service coordinator or other representatives of the Part C system to assist with the smooth transition of services.

### **6.31.2.7 New Mexico Administrative Code (NMAC)**

**A.** Terms defined by federal laws and regulations. All terms defined in the following federal laws and regulations and any other federally defined terms that are incorporated there by reference are incorporated here for purposes of these rules.

(1) The Individuals with Disabilities Education Improvement Act of 2004 (IDEA), 20 USC Secs. 1401 and following.

(2) The IDEA regulations at 34 CFR Part 300 (governing Part B programs for school-aged children with disabilities), 34 CFR Part 301 (governing programs for preschool children with disabilities).

(3) Pursuant to the paperwork reduction provisions of IDEA 20 USC Sec. 1408, all definitions, with the exception of those found in Subsection B of 6.31.2.7 below, contained in the IDEA Parts 300 and 301 at 34 CFR Secs. 300.1 through 300.45, will be adopted by reference.

**B.** The following terms shall have the following meanings for purposes of these rules.

(1) **“CFR”** means the code of federal regulations, including future amendments.

(2) **“Child with a disability”** means a child who meets all requirements of 34 CFR Sec. 300.8 and who:

(a) is aged 3 through 21 or will turn 3 at any time during the school year;

(b) has been evaluated in accordance with 34 CFR Secs. 300.304-300.311 and any additional requirements of these or other public education department rules and standards and as having one or more of the disabilities specified in 34 CFR Sec. 300.8 including mental retardation, a hearing impairment including deafness, a speech or language impairment, a visual impairment including blindness, emotional disturbance, orthopedic impairment, autism, traumatic brain injury, and other health impairment, a specific learning disability, deaf-blindness, or being developmentally delayed as defined in paragraph (4) below; and who has not received a high school diploma; and

(c) at the discretion of each local educational agency and subject to the additional requirements of Subsection 2 of Paragraph F of 6.31.2.10 NMAC, the term “child with a disability” may include a child aged 3 through 9 who is evaluated as being developmentally delayed and who, because of that condition, needs special education and related services.

(3) **“Department”** means the public education department.

(4) **“Developmentally delayed”** means a child aged 3 through 9 or who will turn 3 at any time during the school year: with documented delays in development which are at least two standard deviations below the mean on a standardized test instrument or 30 per cent below chronological age; and who in the professional judgment of the IEP Team and one or more qualified evaluators needs special education or related services in at least one of the following five areas: receptive or expressive language, cognitive abilities, gross or fine motor functioning, social or emotional development or self-help/adaptive functioning. Use of the developmentally delayed option by individual local educational agencies is subject to the further requirements of Paragraph 2 of Subsection F of 6.31.2.10 NMAC.

(5) The **“educational jurisdiction”** of a public agency includes the geographic area, age range and all facilities including residential treatment centers, day treatment centers, hospitals, mental health institutions, juvenile justice facilities, state supported schools, or programs within which the agency is obligated under state laws, rules or regulations or by enforceable agreements including joint powers agreements (JPA) or memoranda of understanding (MOU) to provide educational services for children with disabilities. In situations such as transitions, transfers and special

placements, the educational jurisdiction of two or more agencies may overlap and result in a shared obligation to ensure that a particular child receives all the services to which the child is entitled.

(6) A **“free appropriate public education (FAPE)”** means special education and related services which meet all requirements of 34 CFR Sec. 300.17 and which, pursuant to Sec. 300.17(b), meet all applicable department rules and standards, including but not limited to these rules (6.31.2 NMAC), the Standards for Excellence (6.30.2 NMAC) and department rules governing school personnel preparation, licensure and performance (6.60 NMAC through 6.64 NMAC), student rights and responsibilities (6.11.2 NMAC) and student transportation (6.41.3 and 6.41.4 NMAC).

(7) The **“general education curriculum”** pursuant to 34 CFR Sec. 300.320, means the same curriculum that a public agency offers for nondisabled children. For New Mexico public agencies whose non-special education programs are subject to department rules, the general curriculum includes the content standards, benchmarks and all other applicable requirements of the Standards for Excellence (6.30.2 NMAC) and any other department rules defining curricular requirements.

(8) **“LEA”** means a local educational agency as defined in 34 CFR Sec. 300.28.

(9) **“Individualized education program”** or IEP means a written statement for a child with a disability that is developed, reviewed, and revised in accordance with 34 CFR Secs. 300.320 through 300.324;

(10) The **“IDEA”** means the federal Individuals with Disabilities Education Improvement Act of 2004, 20 USC Secs. 1401 and following, including future amendments.

(11) **“NMAC”** means the New Mexico administrative code, including future amendments.

(12) **“NMSA 1978”** means the 1978 Compilation of New Mexico Statutes Annotated, including future amendments.

(13) **“Parent”** includes, in addition to the persons specified in 34 CFR Sec. 300.30, a child with a disability who has reached age 18 and for whom there is no court-appointed general guardian, limited guardian or other court-appointed person who has legal custody or has otherwise been authorized by a court to make educational decisions on the child’s behalf as provided in Subsection K of 6.31.2.13 NMAC. Pursuant to 34 CFR Sec. 300.519 and department policy, a foster parent of a child with a disability may act as a parent under Part B of the IDEA if: (i) the foster parent or the state children, youth and families department (CYFD) provides appropriate documentation to establish that CYFD has legal custody and has designated the person in question as the child’s foster parent; and (ii) the foster parent is willing to make the educational decisions required of parents under the IDEA; and has no interest that would conflict with the interests of the child. A foster parent who does not qualify under the above requirements but who meets all requirements for a surrogate parent under 34 CFR Sec. 300.519 may be appointed as a surrogate if the public agency responsible for making the appointment deems such action appropriate. (See Subsection J of 6.31.2.13 NMAC.)

(14) **“Puente para los niños fund”** in New Mexico means a risk pool fund to support high cost students with disabilities identified by LEAs pursuant to 34 CFR Sec. 300.704(c)(3)(i).

(15) “SAT” means the student assistance team, which is a school-based group of people whose purpose is to provide additional educational support to students who are experiencing difficulties that are preventing them from benefiting from general education.

(16) “SEB” means the special education bureau of the public education department.

## Appendix B: Autism-related Assessment Instruments

The following is a list of assessment instruments that are available, this list is not exhaustive, as long as the requirements of IDEA are met, the selection of particular instruments is left to the discretion of the local school district. 34 CFR § 300.301-304.

### **Adaptive Assessment**

Residential Lifestyle Inventory

Vineland Adaptive Behavior Scales (VABS)

### **Behavior Assessment**

AAMR Adaptive Behavior Scales—School: 2nd Edition (ABS-S:2)

Achenbach Child Behavior Checklist (ACBC)

Analysis of Sensory Behavior Inventory (Rev. ed.) (ASBI)

Early Coping Inventory for Stressful Situations (ECISS)

Social Behavior Assessment Inventory Purpose (SBAI)

Test of Pretend Play

The Personality Inventory for Students (PIC)

The Scales of Independent Behavior Rev. ed.) (SIB-R)

### **Communication Assessment**

Assessing Semantic Skills Through Everyday Themes (ASSTET)

Bracken Basic Concept Scale (Rev. ed.) (BBCS-R)

Clinical Evaluation of Language Fundamentals, Third Edition (CELF-III)

Expressive One-Word Picture Vocabulary Test (Rev. ed.)

Peabody Picture Vocabulary Test (Rev. ed.) (PPVT)

Receptive One-Word Picture Vocabulary Test (Rev. ed.)

Reynell Developmental Language Scales

Sequenced Inventory of Communication Development (Rev. ed.) (SICD-R)

Test of Language Competence

Test of Language Development (TOLD-P3)

Test of Language Development Intermediate (TOLD-13)

Test of Pragmatic Language

Test of Problem Solving

Nonspeech Test for Receptive/Expressive Language

### **Developmental Assessment**

Assessment, Evaluation, and Programming System (AEPs)

Brigance—Diagnostic Comprehensive Inventory of Basic Skills

Diagnostic Inventory of Essential Skills

Life Skills Inventory

Developmental Assessment for Students with Severe Disabilities (DASH-2)

Generic Skills Inventory and Specific Skills Inventory

Hawaii Early Learning Profile (HELP)

Psychoeducational Profile—Revised (Rev. ed.) (PEP-R)  
Residential Lifestyle Inventory  
Southern California Ordinal Scales of Development (SCOSD)  
Vineland Adaptive Behavior Scales

### **Diagnostic Assessment**

Autism Behavior Checklist (ABC)  
Autism Diagnostic Interview—(Rev. ed.) (ADI)  
Autism Diagnostic Observation Schedule—Generic (ADOS-G)  
Autism Screening Instrument for Educational Planning (2nd ed.) (ASIEP-2)  
Autism Spectrum Screening Questionnaire (ASSQ)  
Childhood Autism Rating Scale (CARS)  
Diagnostic Checklist for Behavior-Disturbed Students (Form E-2)  
Gilliam Autism Rating Scale (GARS)  
Pervasive Developmental Disorder Screening Test (PDDST)  
Stage One Stage Two Stage Three  
Real Life Rating Scale

### **Family Assessment**

Behavioral Vignettes Test (BVT)  
Child Improvement Locus of Control Scale (CILC)  
Family Adaptability and Cohesion Evaluation Scales III (FACES III)  
Family Assessment Interview (FAI)  
Family Environmental Scale (FES)  
Parenting Satisfaction Scale (PSS)  
Parenting Stress Index (3rd ed.) (PSI-III)  
Questionnaire on Resources and Stress (QRS)  
The Parental Stress Scale (PSS)

### **Other Assessment Options**

Audiometric Assessment  
Standardized Videotape Assessment

### **Standardized Tests of Intelligence**

Differential Ability Scales (DAS)  
Stanford-Binet Intelligence Scale (4th ed.) (SBIS-IV)  
Wechsler Intelligence Scale for Students (Third ed.) (WISC-III)

### **Tests of Nonverbal Intelligence**

Columbia Mental Maturity Scale (3rd ed.) (CMMS-III)  
Leiter International Performance Scale (LIPS)  
Merrill-Palmer Scale of Mental Tests (MPSMI)  
Test of Nonverbal Intelligence (2nd ed.) (TONI-II)  
Universal Nonverbal Intelligence Test (UNIT)

The following instruments are used by educators, clinicians, and researchers to assess students suspected of, or previously diagnosed with, autism or ASD. The instruments were selected for this list because they are used to measure specific dimensions of a student's development, environment, or family needs. The instruments listed provide measures of development in different domains of functioning. Rate of change in those domains is sometimes used as a baseline or as a follow-up measure of developmental progress or response to educational programming. Some of the instruments listed below are critically reviewed in Burros' Mental Measurement Yearbook.

To obtain the instrument or training in the use of an instrument, refer to the publisher's catalogue or author's comments. For convenience, instruments are categorized under headings, listed alphabetically, that describe part or all of the purpose of the instrument. The following list of assessment instruments represents a sample of instruments most familiar to professionals working with students with autism. Again, this list is not exhaustive.

## **ADAPTIVE ASSESSMENT**

### **Residential Lifestyle Inventory**

The Residential Lifestyle Inventory provides information on a person's activity patterns that includes the types of activities that were performed during the previous 30 days and how many times each activity occurred at home or in the community. It is useful for individualized plan development and ongoing monitoring of lifestyle indicators in community-based residential programs supporting people with severe disabilities.

### **Vineland Adaptive Behavior Scales (VABS)**

The Vineland Adaptive Behavior Scales (VABS) (Sparrow, Balla, & Cicchetti, 1984) comes in three forms varying in degree of detail and proposed setting. There is the Survey Form, the Expanded Form, and the Classroom Edition. The VABS is administered by interviewing the student's parents, teachers, or care providers. The scales range in age from birth to 19 years. Raw scores from communication, daily living skills, socialization, motor skills, and maladaptive behaviors are converted to standard scores with a mean of 100 and a standard deviation of 15. The Adaptive Behavior composite score includes the domains noted above and reflects overall adaptive ability. Questions have been raised about the scales' standardization and the accuracy of standard scores across the age range. One problem is lack of uniformity of scores across various ages. Depending upon the student's age, means and standard deviations differ. Thus, comparing the same student's performance on reassessment is compromised, as is the accuracy of any composite score. Differences among domain scores may be more apparent than real because of variable scores. There is considerable overlap among the various domains with both communication and daily living domains containing questions about the student's language ability.

## **BEHAVIOR ASSESSMENT**

### **AAMR Adaptive Behavior Scales - School: 2nd Edition (ABS-S:2)**

AAMR Adaptive Behavior Scales-School: 2nd Edition (ABS-S:2) contains two parts: Part I contains content on behavior domains, Part II contains content related to social

maladaptation. For students age 3–18, this tool is published by Psychological Assessment Resources, Inc.

### **The Achenbach Child Behavior Checklist (ACBC)**

The Achenbach Child Behavior Checklist (ACBC) is for students four to 18 years old and is completed by an adult informant. It has two major scales--externalizing and internalizing behaviors—each of which has four subscales. It has been used as a follow-up measure. The student’s primary caregiver (in most cases, the client’s mother) serves as the informant. There is a separate version of this test developed for teachers, the Teacher Report Form. (Achenbach, 1991)

### **The Analysis of Sensory Behavior Inventory (Rev. ed.) (ASBI-R)**

The Analysis of Sensory Behavior Inventory (Rev. ed.) (ASBI-R) (Morton & Wolford, 1994) is designed to collect information about an individual’s behaviors as they are related to sensory stimuli. Six sensory modalities are assessed: vestibular, tactile, proprioceptive, auditory, visual, and gustatory-olfactory. Ratings can be made about both sensory-avoidance and sensory-seeking behaviors within each modality. Information obtained from this tool may be helpful in completing a functional analysis of behavior and in designing effective intervention strategies, including accommodations and reinforcers for the individual. Sensory processing differences are frequently seen in persons with severe disabilities and problem behaviors. Analyzing these differences may assist in understanding puzzling behaviors that have proven difficult to change. Interventions that accommodate to individual differences frequently result in improved adaptive functioning. (Available from Skills with Occupational Therapy, Arcadia, California)

### **Early Coping Inventory for Stressful Situations (CISS)**

The Early Coping Inventory for Stressful Situations (CISS) measures multidimensional coping styles: task-oriented, emotion-oriented, and avoidance-oriented coping. This tool is designed for adolescence through adult and is available from Psychological Assessment Resources, Inc.

### **Social Behavior Assessment Inventory Purpose (SBAI)**

The Social Behavior Assessment Inventory Purpose (SBAI) is a tool designed for use in elementary grades through grade nine. It measures the level of social behaviors exhibited by students and adolescents in classroom settings. It is available through Psychological Assessment Resources, Inc.

### **Test of Pretend Play**

The test of pretend play is designed for students age one to six. It assesses three types of symbolic play - substituting one object for another object or person and reference to an absent object, person, or substance. There are two versions - nonverbal and verbal. This test is published by the Psychological Corporation.



### **The Personality Inventory for Students (PIC)**

The Personality Inventory for Students (PIC) (Wirt, Lachar, Klinedinst, & Seat, 1977) is a true/false questionnaire for students ages three to 16 years that consists of 13 clinical and three validity scales. The PIC is administered to parents. The scales measure areas of emotional disturbance in students such as anxiety, withdrawal, depression, and reality distortion. This inventory can be completed by the student's primary caregiver.

### **The Scales of Independent Behavior Revised (SIB-R)**

The Scales of Independent Behavior Revised is a comprehensive nonreference assessment of adaptive and maladaptive behavior. It can be used from infancy through elderly adulthood and is available through the Riverside Publishing Company.

## **COMMUNICATION ASSESSMENT**

### **Assessing Semantic Skills Through Everyday Themes (ASSET)**

The Assessing Semantic Skills Through Everyday Themes (ASSET) (Barrett, Zachman, & Huisinigh, 1988) is a test of receptive and expressive semantics for preschool and early elementary students. It is built around six common themes, which represent aspects of everyday life that are familiar and important to preschool and early elementary students. Test items emphasize vocabulary that is meaningful and relevant to the experiences of young students. There are five receptive and five expressive subtests, which are designed to elicit responses by questions or directions from the examiner, that refer to the illustrations in the picture stimuli book. Nonverbal performances on receptive vocabulary tasks can be compared to verbal responses on the expressive subtests. This evaluation instrument provides standardized analyses of receptive, expressive, and overall vocabulary abilities. Available from LinguSystems, Inc., Moline. (3rd Ed.)

### **Bracken Basic Concept Scale (Rev. ed.)(BBCS-R)**

The Bracken Basic Concept Scale assesses fundamental educational concepts and student's knowledge of concepts that constitute an indication of a student's readiness for formal education. This tool measures students's basic concept acquisition and receptive language skills. Available in Spanish. Appropriate for students two, six months through seven years, 11 months. Available through Harcourt Educational Measures.

### **Clinical Evaluation of Language Fundamentals (3rd ed.)(CELF-III)**

The Clinical Evaluation of Language Fundamentals, (3rd ed.) (CELF-III) is a tool administered by Speech Pathologists for students age six through 21. It is used to gather information on student's classroom communication and language learning difficulties and performance in real-life situations. This tool covers listening, speaking, reading, and writing. It is available through Harcourt Educational Measures.

### **Expressive One-Word Picture Vocabulary Test (Rev. ed.)**

The Expressive One-Word Picture Vocabulary Test (Rev. ed.) (Gardner, 1990) measures the student's ability to verbally label objects and people. The student must identify, by word, a single object or a group of objects on the basis of a single concept. This is a standardized test that provides age equivalents, standard scores, scaled scores, percentile

ranks, and stanines. It is available from Academic Therapy Publications, Novato, California.

**Peabody Picture Vocabulary Test (Rev. ed.)(PPVT-R)**

The Peabody Picture Vocabulary Test (Rev. ed.) (PPVT-R) (Dunn & Dunn, 1981) measures an individual's receptive vocabulary for standard American English. It measures one facet of general intelligence: vocabulary. It takes a relatively short period of time to administer and may be used as an initial screening device. It is available from American Guidance Service, Circle Pines, Minnesota.

**Receptive One-Word Picture Vocabulary Test (Rev. ed.)**

The Receptive One-Word Picture Vocabulary Test (Rev. ed.) (Gardner, 1990) obtains an estimate of a student's one-word hearing vocabulary based on what the student has learned from home and school. It provides information about the student's ability to understand language. This is a standardized test that provides age equivalents, standard scores, scaled scores, percentile ranks, and stanines. It is available from Academic Therapy Publications, Novato, California.

**Sequenced Inventory of Communication Development (Rev. ed.)(SICD-R)**

The Sequenced Inventory of Communication Development (Rev. ed.) (SICD-R) (Hedrick, Prather, R Tobin 1984) tests a variety of early communication skills, giving a broad perspective of the semantic, syntactic, and pragmatic aspects of a student's receptive and expressive language. It combines parental report items with behavioral items that incorporate materials and methods to keep students' attention. The test provides for assignment of communication ages and for determining initial goals in communication programming. It is available from University of Washington Press, Seattle, Washington.

**Test of Language Competence**

Test of Language Competence is used with students age 9–18. Subtests included ambiguous sentences, listening comprehension, making inferences, oral expression, recreating speech acts, and figurative language. It is available from M.O. Angus and Associates Limited.

**Test of Language Development (TOLD-P3)**

Designed for students ages four through eight years, 11 months. Nine subtests measure different components of spoken language. It is available from M.O. Angus and Associates Limited.

**Tests of Language Development Intermediate (TOLD-13)**

For use with students age eight to 12, nine subtests measure different components of spoken language. It is available from M.O. Angus and Associates Limited.

### **Tests of Pragmatic Language**

Test of Pragmatic Language assesses a student's ability to effectively use pragmatic language in grades kindergarten through middle school. It is available from M.O. Angus and Associates Limited.

### **Test of Problem Solving**

Two tests, one for six to 11 years and one for 12 to 17 years assess how students use language to think, reason, and problem-solve. It is available from M.O. Angus and Associates Limited.

### **The Nonspeech Test for Receptive/Expressive Language**

The Nonspeech Test (Huer, 1988) is designed to provide a systematic way for observing, recording, and summarizing the variety of means in which an individual may communicate. This tool determines a person's skills as a communicator whether speech or nonverbal means are used for communication. It allows for easy development of IEP objectives from the test response forms. It is available from Don Johnston Developmental Equipment, Inc.

## **DEVELOPMENTAL ASSESSMENT**

### **Assessment, Evaluation, and Programming System (AEPs)**

Assessment, Evaluation, and Programming (AEPs) provides a comprehensive curriculum assessment that includes materials for linking assessment, IFSP/IEP development, curriculum/intervention, and evaluation. The system is broken into functioning levels of birth to three years and three to six years. Processes for using this tool include strategies for team assessment and planning. The AEPs is available from Paul Brooks Publishing Company.

### **Brigance Diagnostic Comprehensive Inventory of Basic Skills**

The Brigance Diagnostic Comprehensive Inventory of Basic Skills contains 203 skill references including: reading, listening, research and study skills, writing, spelling, language, and mathematics. This is appropriate for elementary and middle schools. The tool serves as an assessment instrument for screening and diagnostic purposes, an instructional guide for educational objectives, a record keeping and tracking system, a tool to develop and communicate instructional plans, and a resource for curriculum and staff development.

### **Brigance Diagnostic Inventory of Early Development**

The Brigance Inventory (Brigance, 1978) is criterion-referenced rather than norm-referenced. While useful for assessment purposes, its value is in identifying instructional objectives, serving as a guide for measuring those objectives, and providing an ongoing tracking system. The Brigance Inventory is intended for informal assessment of several aspects of student development and is for students functioning at developmental levels from birth to seven years of age. Major areas assessed include general knowledge and comprehension, speech and language, preacademics, self-help, and psychomotor skills. Within these major areas, there are 98 subtests of sequenced developmental skills. The

Brigance Inventory permits different administrations to be used, such as observation, direct testing of the student, or reports from caretakers, child-care workers, or teachers. To elicit the student's maximum performance, clinicians are encouraged to allow students to respond in any possible fashion, such as, pointing, eye localizations, or verbalizing. Clinicians are encouraged to adapt materials to best meet the needs of the student to get a response. Reliability and validity measures of the Brigance Inventory are limited as is true of most criterion referenced instruments. There is no reported reliability or validity data in the manual. The value of the Brigance Diagnostic Inventory lies in its ability to identify a student's pattern of strengths and weaknesses in several areas. The items are representative of a curriculum appropriate for an early childhood program and thus are easily linked to instructional planning and intervention (Bagnato, 1985). Another benefit of relating items to teaching and planning is that repeated assessments with the Brigance Inventory can pinpoint areas of gains and losses. The obvious caution here is to avoid teaching to the test since the items are so very specific. (See an article by Gory, 1985, for a review of the Brigance Inventory.)

### **Brigance Diagnostic Inventory of Essential Skills**

This criterion-referenced tool is designed for use with special needs students in secondary programs. It covers basic academic and applied skills relevant to functioning as a citizen, consumer, worker, and family member. Assessment, diagnostic, record keeping, and instructional planning strategies are provided in the areas of reading, language, arts, mathematics, and life skills.

### **Brigance Life Skills Inventory**

The Brigance Life Skills Inventory includes: assessments to evaluate listening, speaking, reading, writing, comprehending, and computing skills within the context of everyday situations. It is intended for uses with adult basic education, English as a second language, secondary special education, vocational education, and family literacy programs.

### **Developmental Play Assessment Instrument**

The Developmental Play Assessment Instrument (Lifter, Sulzer-Azaroff, Anderson, R Edwards- Cowdery, 1993) is an instrument used to assess the play development of students with disabilities relative to the play of nondisabled students. The developmental quality of toy play is evaluated according to the level of pretend play and the frequency and variety of play activities within the level identified.

## **DIAGNOSTIC ASSESSMENT**

The PEP-R kit consists of a set of toys and learning materials that are presented to a student within structured play activities. The examiner observes, evaluates, and records the student's responses during the test. There are 131 developmental and 43 behavioral items on the PEP-R. The total time required to administer and score these items varies from 45 minutes to 1.5 hours. Because it is not a test of speed, variations in total testing time depend on the student's levels of functioning and any behavior management problems that arise during the testing situation. At the end of the session, the student's scores are distributed among seven developmental and four behavioral areas. The

resulting profiles depict a student's relative strengths and weaknesses in different areas of development and behavior. The Developmental Scale tells where a student is functioning relative to peers. The items on the Behavioral Scale have the separate, but related, assessment function of identifying responses and behaviors consistent with a diagnosis of autism. The PEP-R provides a third and unique score called emerging. A response scored "emerging" is one that indicates some knowledge of what is required to complete a task but not the full understanding or skill necessary to do so successfully. The Adolescent and Adult Psychoeducational Profile (AAPEP) extends the PEP-R to meet the needs of adolescents and adults.

### **Autism Behavior Checklist (ABC)**

The Autism Behavior Checklist (ABC) is a general measure of autism. It is not as reliable as the CARS or ADI-R. Correlations between the ABC and CARS ranged from 0.16 to 0.73 in a study by Eaves and Milner (1993). The CARS correctly identified 98 percent of the autistic subjects; it identified 69 percent of the possibly autistic as autistic. The ABC correctly identified 88 percent of the autistic subjects, while it identified 48 percent of the possibly autistic as autistic. In two separate studies, teachers' ratings on the ABC failed to reveal a common set of characteristics of students with high functioning Autistic Disorder (Myles, Simpson, & Johnson, 1995) and Asperger's Disorder (Ghaziuddin, N., Metler, Ghaziuddin, M., Tsai, & Luke, 1993).

### **Autism Diagnostic Interview -(Rev. ed.)(ADI-R)**

The Autism Diagnostic Interview - Revised (ADI-R) is a semi-structured, investigator-based interview for caregivers of students and adults for whom autism or pervasive developmental disorders is a possible diagnosis. Two studies (Lord, Rutter, & LeCouteur, 1994; Lord, Storoschuk, Rutter, & Pickles, 1993) were conducted to assess the psychometric properties of the ADI-R. Reliability was tested among 10 autistic (mean age 48.9 months) and 10 mentally handicapped or language-impaired students (mean age 50.1 months), and validity was tested among an additional 15 autistic and 15 nonautistic students. Results indicated the ADI-R was a reliable and valid instrument for diagnosing autism in preschool students. Inter-rater reliability and internal consistency was good, and inter-class correlations were very high. A standard diagnostic interview is conducted at home or in a clinic. The ADI-R is considered by some professionals in the field as a measure of high diagnostic accuracy. It takes several hours to administer and score. The ADI-R is recognized as one of the better standardized instruments currently available for establishing a diagnosis of autism. It is a semi-structured interview administered to subjects' caregivers that determines whether or not an individual meets the Diagnostic and Statistical Manual of Mental Disorders (3rd ed., revised) criteria for autism. The authors of the ADI-R plan to update the scoring procedure so it reflects DSM-IV criteria. The assessment begins with a home visit by a therapist who interviews the student's parents. A home visit provides a chance to meet the student and to get a sense of the parents' priorities. This interview may be scheduled as part of the in-clinic assessment. (Rutter, Lord, and LeCouteur, 1990).

### **Autism Diagnostic Observation Schedule - Generic (ADOS-G)**

The Autism Diagnostic Observation Schedule - Generic (ADOS-G) is used on ICD-10 and DSM-IV-TR criteria. Four modules are used to evaluate communication, reciprocal interaction, play, restricted interests, and other abnormal behaviors. It is designed for use for toddlers through adults. This assessment requires specific training and validation procedures to administer. Available through Western Psychological Service.

### **Autism Screening Instrument for Educational Planning (2nd ed.)(ASIEP-2)**

The Autism Screening Instrument for Educational Planning (2nd ed.) (ASIEP- 2) (Krug, Arick, & Almond, 1993) is a major revision of one of the most popular individual assessment instruments available for evaluating and planning for subjects with autistic behavior characteristics. Standardized and researched in diagnostic centers throughout the world, ASIEP-2 uses five components to provide data on five unique aspects of behavior with individuals from 18 months through adulthood. The components of the ASIEP examine behavior in five areas: sensory, relating, body concept, language, and social self-help. The ASIEP-2 samples vocal behavior, assesses interactions and communication, and determines learning rate. In combination, ASIEP-2 subtests provide a profile of abilities in spontaneous verbal behavior, social interaction, educational level, and learning characteristics. Revisions to the ASIEP-2 include a new decision matrix, a new norming table section, and simplified administration of the Prognosis of Learning Rate Subtest. The author reports a strong intercorrelation among the ASIEP-2 subtests and the utility of the battery to distinguish among groups of subjects with a variety of disabilities. ASIEP-2 components have been normed individually. Percentiles and standard scores are provided for the five subtests.

### **Autism Spectrum Screening Questionnaire (ASSQ)**

The Autism Spectrum Screening Questionnaire may be used when assessing symptoms characteristic of Asperger's Syndrome and other high functioning Autistic Spectrum Disorders in students and adolescents with normal intelligence or mild mental retardation. This questionnaire may be used for students age six through 17 and takes no training to administer. It is available through the Journal of Autism and Developmental Disorders.

### **Childhood Autism Rating Scale (CARS)**

The Childhood Autism Rating Scale (CARS) was developed by the Treatment and Education of Autistic and Related Communication Handicapped Students (TEACCH) program staff in North Carolina to formalize observations of the student's behavior throughout the day. This 15-item behavior-rating scale helps to identify students with autism and to distinguish them from developmentally disabled students who are not autistic. Brief, convenient, and suitable for use with any student older than two years of age, the CARS makes it much easier for clinicians and educators to recognize and classify autistic students. Developed over a 15-year period, with more than 1,500 cases, CARS includes items drawn from five prominent systems for diagnosing autism. Each item covers a particular characteristic, ability, or behavior. After observing the student and examining relevant information from parent reports and other records, the examiner rates the student on each item. Using a seven-point scale, he or she indicates the degree to which the student's behavior deviates from that of a normal student of the same age. A

total score is computed by summing the individual ratings on each of the 15 items. Students who score above a given point are categorized as autistic. In addition, scores falling within the autistic range can be divided into two categories; mild-to-moderate and severe. Professionals who have had only minimal exposure to autism can easily be trained to use CARS. Two training videos showing how to use and score the scale are available from Western Psychological Services (WPS). (Schopler, Reichler, DeVellis, & Daly, 1988; Schopler, Reichler, & Renner, 1986).

### **Diagnostic Checklist for Behavior-Disturbed Students (Form E-2)**

The Form E-2 Diagnostic Checklist (Rimland, 1971), developed at the Institute for Child Behavior Research, was proposed as an assessment instrument that differentiates between cases of “classical” autism and a broader range of students with “autistic-like” features. Questions on Form E-2 reference behaviors in students between birth and age six. This questionnaire is completed by the student’s parents. The form is intended to be used to identify autism for “biological research.” Rimland is clear that Form E-2 is not designed to determine whether or not a student is autistic for the purposes of being admitted to an educational or rehabilitative program.

### **Gilliam Autism Rating Scale (GARS)**

Designed for use by teachers, parents, and professionals, the Gilliam Autism Rating Scale (GARS) (Gilliam & Janes, 1995) helps to identify and diagnose autism in individuals ages three through 22 years and to estimate the severity of the problem. Items on the GARS are based on the definitions of autism adopted by the DSM-IV. The items are grouped into four subtests: stereotyped behaviors, communication, social interaction, and developmental disturbances. The GARS has three core subtests that describe specific and measurable behaviors. An optional subtest (Developmental Disturbances) allows parents to contribute data about their student’s development during the first three years of life. Validity and reliability of the instrument are high. Coefficients of reliability (internal consistency, test-retest, and inter-scorer) for the subtests are all in the 0.80s and 0.90s. Behaviors are assessed using objective, frequency-based ratings. The entire scale can be completed in five to 10 minutes by persons who have knowledge of the student’s behavior or the greatest opportunity to observe him or her. Standard scores and percentiles are provided.

### **The Pervasive Developmental Disorder Screening Test (PDDST)**

The Pervasive Developmental Disorder Screening Test (PDDST) (Siegel, 1996) is designed to be administered in settings where concerns about possible autistic spectrum disorders arise. Different “stages” of the PDDST correspond to representative populations in (a) primary care clinics, (b) developmental clinics, and (c) autism clinics. The PDDST is designed as a screening test and is a parent report measure. As such, it does not constitute a full clinical description of early signs of autism but does reflect those early signs that have been found to be reportable by parents and correlated with later clinical diagnosis.

### **Southern California Ordinal Scales of Development (SCOSD)**

The Southern California Ordinal Scales of Development (SCOSD), which is available from Western Psychological Services, was developed by the California Department of Education, Diagnostic Center in Southern California (1985). The developmental scales of cognition, communication, social affective behavior, practical abilities, gross motor abilities, and fine motor abilities are based on two fundamental principles. First, they draw extensively on the developmental theories of Jean Piaget. Each scale is divided according to the levels and stages that Piaget describes in his writings on human development. Second, the SCOSD incorporates assessment techniques that aim to minimize the constraints of traditional, standardized ability testing. When possible, the examiner is encouraged to observe the student in his or her natural environment, using materials that are readily available and familiar. In interpreting the results of assessment, the examiner arrives at a total picture of the student's abilities in terms of the particular developmental scale. The SCOSD is criterion-referenced rather than norm-referenced. Assessment procedures are flexible, rather than fixed, and the scoring system takes into account the quality as well as the quantity of responses.

#### **Stage One**

Primary care screening is designed for use in primary care pediatric settings where the vast majority of parents express initial complaints about symptoms that prove to be significant in diagnoses of ASD. The index population is patients who were clinically screened and then referred to an autism specialty clinic (and who eventually received diagnoses of Autistic Disorder, PDD-NOS, or another developmental disorder but with at least a few autistic symptoms N=379). The control population is high-risk preterm infants (at risk of mild-to-moderate neurological dysfunction; N=198).

#### **Stage Two**

Developmental disorder clinic screening is designed for use in developmental clinics where students are often first assessed for possible developmental disorders. The index population is patients with diagnoses of Autistic Disorder or PDD-NOS N=318. The control population is patients clinically screened as appropriate for an autism evaluation but who eventually received nonautistic spectrum disorder diagnoses, such as mental retardation or developmental language disorders N=62.

#### **Stage Three**

ASD screening is designed for use in specialty clinics for students suspected of ASD. The index population is patients with diagnoses of Autistic Disorder N=201. The control population is patients with diagnoses of PDD-NOS N=59.

### **Prelinguistic Autism Diagnostic Observation Schedule (PL-ADOS)**

The Prelinguistic Autism Diagnostic Observation Schedule (PL-ADOS) (DiLavore, Lord, & Rutter, 1995) is a semi-structured observation scale for diagnosing students who are not yet using phrase speech and who are suspected of having autism. The scale is administered to the student with the help of a parent. This instrument provides an opportunity to observe specific aspects of the student's social behavior, such as joint attention, imitation, and sharing of effect with the examiner and parent. PL-ADOS scores



are reported to discriminate between students with autism and students with nonautistic developmental disabilities. The resulting diagnostic algorithm is theoretically linked to diagnostic constructs associated with International Classification of Diseases (10th revision) and DSM-IV criteria for autism.

### **Real Life Rating Scale**

The Real Life Rating Scale (RLRS) (Freeman, Ritvo, Yokota, & Ritvo, 1986) is a scale used to assess the effects of treatment on 47 behaviors in the motor, social, affective, language, and sensory domains among autistic persons. The RLRS is applicable in natural settings by nonprofessional raters, is rapidly scored by hand, and can be repeated frequently without affecting inter-observer agreement. Data are presented on inter-rater agreement among novice and experienced observers. Instructions for the scale, target behaviors, and definitions are appended to the journal article.

### **FAMILY ASSESSMENT**

These measures focus primarily on aspects of the family. These instruments are used to determine pre- and post-test changes and are not specifically used to tailor the course of individual programming for a family or student.

### **Behavioral Vignettes Test (BVT)**

The Behavioral Vignettes Test (BVT) is a multiple-choice test (20 items) used to evaluate a parent's, school therapist's, or special education teacher's functional knowledge of behavioral principles. The BVT can be used as a pre- and post-test measure of change in persons undergoing training in teaching self-help, social, and play skills. (Baker, 1989)

### **Child Improvement Locus of Control Scale (CILC)**

The Child Improvement Locus of Control Scale (CILC) (DeVellis, DeVellis, Revicki, Lurie, Runyan, & Bristol, 1985) assesses belief about a student's ability to improve. The instrument is based on two research studies to develop and validate the CILC scales. In the first study, 145 parents (average age 37.8 years) of autistic students completed a questionnaire tapping beliefs about their students' improvement. In Study 2, 175 parents of physically ill students were given the CILC items. The following relationships were observed: (a) parental beliefs in student influence increased with student age, (b) belief in external factors (chance and divine influence) was greater among African American parents, and (c) belief in parental influence decreased with illness severity.

### **Family Adaptability and Cohesion Evaluation Scales III (FACES III)**

The Family Adaptability and Cohesion Evaluation Scale (FACES III and FACES IV) (Olson, 1986; 1994) provides measures of perceived cohesion and adaptability of families. This instrument is relatively well researched. It has been used to assess, for example, the differences between "the ideal and the real representation of family" as perceived by parents and adolescent students. FACES has been used to assess marital satisfaction. Combined with the Clinical Rating Scale, a related family assessment instrument, these two assessment tools can be used for making a diagnosis of family functioning and for assessing changes over the course of treatment.

### **Family Assessment Interview (FAI)**

The Family Assessment Interview (FAI) (Koegel, Koegel & Dunlap, 1996) is a simple protocol for collecting information from families in preparation for selecting and designing an intervention plan. Items in this brief instrument are designed to enable a "good contextual fit" for the intervention strategy. Interview data based on family members' ideas and reactions to the function of problem behaviors, support strategies, and issues for implementation are actively solicited throughout the assessment and support plan development process. The family assessment interview focuses on information about the ways in which the family structures its daily patterns and routines. It helps identify the family's successful strategies for addressing problem behaviors. Sources of stress for the family are identified and discussed.

### **Family Environmental Scale (FES)**

The Family Environmental Scale (FES) (Moos & Moos, 1981; Moos, 1974) is an inventory that assesses behavior patterns within the family on subscales, such as control, active-recreational orientation, intellectual cultural orientation, and cohesion. Norms are available on large national samples of distressed families as well as smaller samples of families with autistic students. The FES can be given to parents at the beginning and middle of the student's intervention program. It assesses family dynamics at key points during the intervention process. The questionnaire can be completed by both of the student's parents if both participate in the student's care.

### **Parenting Satisfaction Scale (PSS)**

The Parenting Satisfaction Scale (PSS) (Guidubaldi & Cleminshaw, 1996) facilitates clinical assessment of parent-child relationships. The PSS assists in identifying a troubled parent-child relationship and can be useful in assessing a parent's response to the effect of intervention and, if suggested, conducting family therapy. The PSS is a 45-item standardized assessment of parents' attitudes toward parenting. Scores derived from this scale allow a clinician or researcher to define, compare, and communicate levels of parenting satisfaction in three domains: (a) satisfaction with the spouse's or ex-spouse's parenting performance in the parenting role, (b) the parent's satisfaction with the relationship with her or his own child, and (c) satisfaction with the parent's own performance in the parenting role. To improve family communication and increase empathy toward family members, teachers may have a parent's spouse or students complete the scale as he or she believes the parent would respond. Information derived from family members can then be compared with the parent's own responses to identify areas of concordant or discordant perceptions and determine areas in which clinical intervention could improve relationships. The PSS can be completed for siblings of the student with autism. The PSS can be administered in 20 minutes.

### **Parenting Stress Index (3rd ed.) (PSI-III)**

The Parenting Stress Index (3rd ed.) (PSI-III) (Abidin, 1983) identifies stressful areas in parent-child interactions. It is administered individually and takes 20 to 30 minutes to complete. There is a short form that takes 10 minutes. This screening and diagnostic instrument assumes that the total stress a parent experiences is a function of student

characteristics, parent characteristics, and situations that are directly related to the role of being a parent. Student characteristics are measured in six subscales: distractibility, hyperactivity, adaptability, reinforces parent, demandingness, mood, and acceptability. The parent personality and situational variables component consists of seven subscales: competence, isolation, attachment, health, role restriction, depression, and spouse. The PSI is particularly helpful in assessing early identification of dysfunctional parent-child systems, prevention programs aimed at reducing stress, intervention and treatment planning in high stress areas, family functioning and parenting skills, and assessment of child-abuse risk.

### **Autism Related Diagnostic and Assessment Instruments**

The PSI Short Form is a derivative of the full-length test and consists of a 36- item, self-scoring questionnaire profile. It yields a Total Stress score from three scales: parental distress, parent-child dysfunctional interaction, and challenging student.

### **Questionnaire on Resources and Stress (QRS)**

The Questionnaire on Resources and Stress (QRS) (Holroyd, 1974; 1987) consists of 55 items on 11 scales: parental affliction, pessimism about student development, overprotection/dependency, anxiety about the future of the student, social isolation, burden for members of the family, financial problems, lack of family integration, intellectual incapacitation, physical incapacitation, and need for the care of the student. The QRS contains 285 items in 15 rational nonoverlapping scales. It was administered to parents of 43 individuals with disabilities four to 16 years old and evaluated in an outpatient psychiatry clinic. The QRS is used in research to assess ecological causes of stress and general levels of stress in families. There is a short form of the QRS (see Randall, Sexton, Thompson, & Wood, 1989). Holroyd (1988) reviewed studies that have used the QRS for families with members with disabilities to compare parents of clinical groups with normal controls, parents of students with different clinical conditions, and pre- and postintervention. These studies are examined in terms of the relationship of 15 QRS scales to student variables (e.g., age, degree of disability) parent variables (e.g., marital status, educational level) and family variables (e.g., nationality/culture). It is concluded that the QRS fulfills requirements for an acceptable level of validity.

### **The Parental Stress Scale (PSS)**

The Parental Stress Scale (PSS) (Berry R Jones, 1995) is a newly developed general measure of stress. Analyses of responses completed by 1,276 parents suggested that the PSS is reliable, both initially and over time. Initial evaluation of the PSS showed a stable consistency for assessing stress across parents of differing parental characteristics. The validity of PSS scores was supported by predicted correlations with measures of relevant emotions and role satisfaction and significant discrimination between 129 mothers of students in treatment for emotional-behavioral problems and developmental disabilities compared with mothers of students not receiving treatment. Factor analysis suggested a four-factor structure underlying responses to the PSS.

### **Mullen Scales of Early Learning (MSEL)**

The Mullen Scales of Early Learning (MSEL) (AGS Edition, 1997) assesses early cognitive ability and motor development. This new standardized version of the MSEL combines the old Infant Mullen and the Preschool Mullen into one instrument that allows comprehensive assessment of language, motor, and perceptual abilities for students of all ability levels. Test ages range from birth to five years, eight months. This revised and updated version includes five additional scales, including gross motor, visual reception, fine motor, expressive language, and receptive language.

Test scores provide an objective foundation for intervention planning and serve as baseline data for a continuum of appropriate teaching methods and interactions. The MSEL evaluates visual and language abilities at both receptive and expressive levels and provides a framework in which to examine infant development and interactional patterns. This test identifies uneven learning patterns and students who need support (visual and auditory) for weaknesses in reception and memory and indicates when input should be reduced because of sensory overload. The scale helps facilitate appropriate parent/child interactions and assists in identifying the instructional approach, which links the ISP to the IFSP. The publisher reports that it takes 15 minutes to assess a one-year-old using all five scales, 25-35 minutes to assess a three-year-old and 40–60 minutes to assess a five-year-old. Mullen ASSIST computer software is available for scoring and report writing. It is available from American Guidance Service, Circle Pines, Minnesota.

### **OTHER ASSESSMENT OPTIONS**

#### **Audiometric Assessment**

Impairments in auditory processing and hearing acuity should be ruled out before formal intervention procedures begin. Depending on the student's level of communication and awareness, audiological testing should be used to verify that hearing, especially in the speech range, is within normal limits. If the student's active participation in audiological testing is not possible, auditory evoked-response (AER) studies can be performed. Research has shown that in a subgroup of students with autism, AER studies detect significant deviations in auditory processing. In addition, the audiologist will interview the student's parents for information related to hearing ability.

#### **Videotape Assessment**

A critical component of progress assessment is objective behavioral measurement documented by an ongoing videotaped database—a luxury afforded by school laboratory programs. Each student is videotaped daily for five minutes according to a systematic sampling procedure arranged to track students across different activities, times of day, and days of the week. The unique feature of the video database is that there are no contrived observational conditions; students are videotaped at preset times wherever they happen to be, doing whatever they happen to be doing. Videotapes are scored by a highly trained intervention team to obtain objective, reliable measures of language, social, and engagement variables. Videotaped formal and informal language samples are obtained; they are then evaluated by the speech pathologist to determine age appropriateness of communication in the area of social development.

## **STANDARDIZED TESTS OF INTELLIGENCE**

### **Differential Ability Scales (DAS)**

The Differential Ability Scales (DAS) (Elliott, 1990) measures overall cognitive ability and specific abilities in students and adolescents. It is better suited for intellectually higher-functioning students with autism. The DAS assesses multidimensional abilities in students ages two years and six months to 17 years and 11 months. It is administered individually and takes 45 to 65 minutes for the full cognitive battery. The achievement test takes 15 to 25 minutes to administer. The 17 cognitive and three achievement subtests yield an overall cognitive ability score and achievement scores. The three achievement subtests are basic number skills, spelling, and word reading. The DAS allows the examiner to explore differences among the various cognitive abilities as well as differences between cognitive abilities and academic achievement. Colorful, manipulative materials enhance the testing for preschoolers. The Preschool Level measures reasoning as well as verbal, perceptual, and memory abilities and is suitable for ages two years and six months to six years. The school-age level contains a variety of tasks suitable for students ages seven years to 17 years and 11 months.

### **Stanford-Binet Intelligence Scale (4th ed.) (SBIS-IV)**

The Stanford-Binet Intelligence Scale (4th ed.) (SBIS-IV) (Thorndike, Hagen, & Sattler, 1986) has a new format and scoring system, mostly new items, and a new national standardization. The SBIS-IV is for individuals ages two years to adult. It provides scores in four areas -verbal reasoning, abstract and visual reasoning, quantitative reasoning, and short-term memory - and a composite score that is equivalent to the Wechsler Scales Full Scale IQ. Standard scores with means of 100 and standard deviations of 16 are available for each of the four areas. The areas are composed of one or more subtests; the exact subtests administered depend on the individual's age and his or her performance. The subtests have a mean of 50 and standard deviation of 8.

### **Wechsler Intelligence Scale for Students (3rd ed.) (WISC-III)**

While retaining the basic structure and content of the revised edition, the Wechsler Intelligence Scale for Students – Third Edition (WISC-III) (Wechsler, 1991) has updated normative data, improved items and design, and added an optional subtest. The WISC-III includes numerous additional statistical tables and relevant validity information. The WISC-III continues Wechsler's concept of intelligence as a global but multifaceted entity that can be inferred from a student's performance on a series of tasks. It is valuable for psychoeducational assessment, diagnosis, placement, and planning. WISC-III can be used to diagnose exceptionality among school-aged students and has a strong place in clinical and neuropsychological assessment and in research. Like the WPPSI-R, the WISC-III is widely used and generally regarded as the best standardized measure of intelligence. It is available from The Psychological Corporation, San Diego, California.

### **Wechsler Preschool and Primary Scale of Intelligence (Rev. ed.)**

The Wechsler Preschool and Primary Scale of Intelligence (Rev. ed.) (WPPSI- R) (Wechsler, 1989) is a frequently used intelligence test for students from three to seven years of age. It represents the gold standard for assessment for a multitude of situations. In addition, use of the WPPSI-R during preschool years dovetails smoothly with use of

the Wechsler Intelligence Scale for Students (Rev. ed.) as students enter school and require reassessment. The WPPSI-R contains the 11 original WPPSI subtests and an additional performance subtest, Object Assembly, which consists of colorful, appealing puzzles. Animal Pegs (formerly Animal House) and Sentences are now optional subtests. A design-recognition task was added to the Geometric Design subtest so that it now has two parts: Visual Recognition/Discrimination for younger students and Drawing of Geometric Figures for older students. The WPPSI-R provides norms for 17 age groups divided by three-month intervals from three years through seven years, three months. The norms are based on a standardization sample of 1,700 students stratified by age, race, sex, geographic region, parents' education, and parents' occupation. Subtest scaled scores are expressed as standard scores with a mean of 10 and standard deviation of three.

### **TESTS OF NONVERBAL INTELLIGENCE**

#### **Columbia Mental Maturity Scale (3rd ed.) (CMMS-III)**

The Columbia Mental Maturity Scale (3rd ed.) (CMMS-III) (Burgemeister, Blum, & Lorge, 1972) is useful in evaluating students who have sensory or motor defects or who have difficulty speaking and, to some extent, reading. The test does not depend on reading skills. It provides age deviation scores (standard scores) for chronological ages between three years and six months and nine years and 11 months. The age deviation scores range from 50 to 150, with a mean of 100 and standard deviation of 16. A second score, the Maturity Index, indicates the standardization age group most similar to that of the student in terms of test performance. The task is to have the student select the one drawing that is different from the others on each card. However, autistic students may have difficulty understanding the concept of pointing to the "one that does not belong." This untimed test usually takes 15 to 20 minutes to administer and is simple to score. The student is required to make perceptual discriminations involving color, shape, size, use, number, missing parts, and symbolic material. Tasks include: simple perceptual classifications and abstract manipulation of symbolic concepts. The CMMS-III appears to measure general reasoning ability, although there is some evidence that it may be more of a test of the ability to form and use concepts than a test of general intelligence. (Reuter & Mintz, 1970) The scale provides a means for evaluating intelligence through the use of nonverbal stimuli. It can be useful as an aid in evaluating students with disabilities and may be less culturally loaded than some other intelligence tests. However, the scores obtained on the CMMS-III are not interchangeable with those on the SBIS-IV, WISC-R, or WPPSI-R.

#### **Performance Scale (LIPS)**

The Leiter International Performance Scale (LIPS) (Leiter, 1948) measures intelligence independent of language ability for students age three years and older. Administration time is 30 to 45 minutes. Because directions are communicated by pantomime, the LIPS is widely used with non-English-speaking subjects, illiterate or disadvantaged individuals, and those with speech, hearing, or other medical disabilities. The LIPS provides activities that foster attention and allow observation of a student's approach to problem solving and his or her emotional reactions. The subject matches blocks with corresponding characteristic strips positioned in the sturdy wooden frame. Level of difficulty increases at each age level. The LIPS yields a Mental Age and IQ data.

The LIPS scale has four tests at each year level. The scale has a number of limitations including uneven item difficulty levels, outdated pictures, a small number of tests at each year level, and use of the ratio IQ. The most serious difficulties are the outdated norms, inadequate standardization, and lack of information about the reliability of the scale for various age levels. Because the norms underestimate the student's intelligence, Leiter (1959) recommended that five points be added to the IQ obtained on the scale.

While the LIPS has a number of limitations, it does merit consideration as an aid in clinical diagnosis (rather than as a measure of general intelligence), especially in testing language handicapped students who cannot be evaluated by the SBIS-IV, WISC-III, or WPPSI-R. However, although the test may be less culturally loaded than some other intelligence tests, there is no evidence that it is a culture fair measure of intelligence.

### **Merrill-Palmer Scale of Mental Tests (MPSMT)**

The Merrill-Palmer Scale of Mental Tests (MPSMT) (Stutsman, 1931) is for students from one year and six months to six years. The MPSMT is widely used as a nonverbal test instrument for assessing visual-spatial skills (e.g., Howlin & Rutter, 1987) and can be used for young autistic students at the beginning of intervention, at 12 months, and at 24 months into the intervention. Visual-spatial skills are an area of strength for many students with autism. The MPSMT enables a more detailed assessment of visual-perceptual functioning than is provided by the BSID-II or WPPSI-R.

### **Test of Nonverbal Intelligence (2nd ed.) (TONI-II)**

The Test of Nonverbal Intelligence (2nd ed.) (TONI-II) (Brown, Sherbenou, & Johnsen, 1990) is a language-free measure of cognitive ability. It measures abstract figural problem solving in students age five years and older. Administration time is 10 to 15 minutes. The TONI-II contains 55 problem-solving tasks that progressively increase in complexity and difficulty. Each item presents a set of figures where one or more of the items is missing. The student with autism must be able to examine the differences among the figures, identify problem-solving rules that define the relationship, and select a correct response. The TONI-II is a language-free measure of intelligence, aptitude, and reasoning. Because the subject does not have to read, write, speak, or listen during test administration, it is ideal for assessing (a) individuals with speech, language, or hearing impairments; (b) those who have suffered brain injury or have other academic handicaps; and (c) those who do not speak English. Two equivalent forms make the TONI-II ideal for situations where both pre- and postmeasures are desirable. The TONI-II yields quotient scores and percentile ranks. It was normed on more than 2,500 subjects. Reliability and validity data are provided for normal, mentally retarded, learning disabled, deaf, and gifted subjects.

### **Universal Nonverbal Intelligence Test (UNIT)**

This is a standardized, norm-referenced test for students age 7 – 17 years. The test is designed for students who have speech, language or hearing impairments, color-vision deficiencies, different cultural or language backgrounds, and/or are verbally uncommunicative. Measures include symbolic memory, spatial memory, object memory, cube design, analogical reasoning, and mazes. It is available from Riverside Publishing Company.

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## Appendix D: Assistive Technology Tools

<b><u>No Tech Tools</u></b>	<b><u>Low Tech Tools</u></b>	<b><u>Mid Tech Tools</u></b>	<b><u>High Tech Tools</u></b>
	These require the individual or staff person to utilize an item that typically is not electronic or battery operated. These items are typically low cost and easy to use	These include battery-operated devices or simple electronic devices requiring limited advancements in technology	These complex, typically high cost devices require some training for effective use
No tangible item or material is involved	Dry Erase Boards	Tape recorder	Computer Software
Clear physical and visual boundaries	Clipboards	Timer	Adaptive computer hardware
Elimination of extraneous visual stimulation	Three ring binders	Calculator	Video Cameras
Proximity of staff to individuals	Picture Symbol Cards	Head phones	Complex voice output devices
	Choice Board (no voice output)	Assistive Listening Devices	
	Ear Plugs	Portable Word Processor	
	Use of a pointer	Simple Voice Output Devices	
	Visual Schedules and Routines		

## Appendix E: Autism-related Web Resources

### ***General Autism—***

Autism Research Institute

[www.autism.com/ari/](http://www.autism.com/ari/)

Links to research on the causes of autism and methods of preventing, diagnosing, and treating autism and other severe behavioral issues of childhood.

Autism Society of America

[www.autism-society.org](http://www.autism-society.org)

This Web site is the voice and resource of the autism community. Included are many Web site links to ASA chapters.

Center for the Study of Autism

[www.autism.org/contents.html](http://www.autism.org/contents.html)

Located in Salem/Portland, Oregon, the center provides information about autism to parents and professionals and conducts research in collaboration with the Autism Research Institute in San Diego, California. Provides many links and summaries of information in six languages.

Online Asperger's Syndrome Information and Support

[www.udel.edu/bkirby/asperger/](http://www.udel.edu/bkirby/asperger/)

Designed by parents for family support on issues of Asperger's Syndrome.

### ***Training and Specific Techniques for Services***

Behavior Analysis

[www.behavioranalysis.com](http://www.behavioranalysis.com)

Assists individuals to locate and publicize training opportunities in the field of Behavior Analysis, Education, and Human Services. Links to ABA affiliates are provided.

Division TEACCH—Treatment and Education of Autistic and Related Communication-handicapped Students

[www.teacch.com](http://www.teacch.com)

The University of North Carolina at Chapel Hill has an educational approach to enable individuals with autism to function as meaningfully and as independently as possible. Additional links provided.

Geneva Centre for Autism

[www.autism.net](http://www.autism.net)

Located in Toronto, Canada, a center for developing and teaching effective techniques and provides services for people affected by Autism/P.D.D.

More advanced individuals with Autism, Asperger's Syndrome, and Pervasive Developmental Disorder (PDD).

[www.maapservices.org/index.html](http://www.maapservices.org/index.html)

Newsletters, conferences, information, and support when individuals are more advanced.

### ***General Resources with Support Services and Information***

Council for Exceptional Students

[www.cec.sped.org](http://www.cec.sped.org)

International organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted. Includes resources on topics of Autistic Spectrum Disorder and Pervasive Developmental Disorder.

National Institute of Child Health and Human Development

[www.nichd.nih.gov/autism/autism.cfm](http://www.nichd.nih.gov/autism/autism.cfm)

A part of the National Institutes of Health, this is one of the primary Institutes doing research into various aspects of autism including its causes, prevalence, and treatments. News releases, publications, research, and funding opportunities related to autism are provided.

NICHCY—National Information Center for Students and Youth with Disabilities

[www.nichcy.org](http://www.nichcy.org)

National site containing resources, publications, conferences, State resources, and IDEA information. Information is provided on how to search for the subject needed.

U.S. Department of Education—Office of Special Education and Rehabilitative Services

[www.ed.gov/offices/OSERS](http://www.ed.gov/offices/OSERS)

Information on public education issues, IDEA, legislation, and links to other special education resources.

Yale New Haven Medical Center

[www.info.med.yale.edu/](http://www.info.med.yale.edu/)

Go to “search” button and type in Autism, Asperger's Syndrome, or any other medical topic for listings and links to thousands of additional items.

# Appendix F: Functional Behavioral Assessment (FBA)

## Functional Behavioral Assessment

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

School: \_\_\_\_\_ Grade: \_\_\_\_ Age: \_\_\_\_

Gender:

Area(s) of exceptionality:

An **Functional Behavioral Assessment** (FBA) is done when a student's behavior interferes with his or her learning or the learning of others. Its purpose is to identify why a behavior is happening so that the IEP Team can develop appropriate interventions.

**1. Sources of Information**  **Check** sources to be used; **Circle E** if reviewing **existing** data,

**Circle N** if **new** data is needed\*

\_\_\_\_\_ **E N** Anecdotal information provided by parents \_\_\_\_\_ **E N** Parent interviews

\_\_\_\_\_ **E N** Diagnostic evaluation(s) done by \_\_\_\_\_ **E N** Diagnostic evaluation(s) by the district/public agency done by outside agency

\_\_\_\_\_ **E N** Classroom/school observation(s) \_\_\_\_\_ **E N** Student interview

\_\_\_\_\_ **E N** Interview with other professionals \_\_\_\_\_ **E N** Teacher interview(s)

\_\_\_\_\_ **E N** Behavior Rating Scales \_\_\_\_\_ **E N** Discipline records

\_\_\_\_\_ **E N** IEP(s) \_\_\_\_\_ **E N** Attendance records

\_\_\_\_\_ **E N** (other)

\_\_\_\_\_ **E N** (other)

*Note: Parent consent is required for any evaluation or reevaluation. If the FBA team seeks more than what already exists in records (new observations, interviews, etc.,) then consent is required.*

**2. Identified Problem Behavior (what the student is doing or not doing)**

**State setting, frequency, duration, intensity, and severity.**

A) Observed and/or reported by *School staff Parents Other*

B) Observed and/or reported by *School staff Parents Other*

C) Observed and/or reported by *School staff Parents Other*



**3. Events that Typically Precede the Problem Behavior (school setting)**

**Check all that apply, then describe:**

*directive or request from authority provocation from peers academic activity  
unstructured setting transition time certain time of day no obvious circumstance other*

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**4. Events that Typically Follow the Problem Behavior (school setting)**

**Check all that apply, then describe:**

*behavior is socially reinforced by peers receives attention gets corrective feedback  
is removed from the setting privileges are withheld gets negative consequence  
no consequences or behavior is ignored no obvious consistency other*

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**5. Effectiveness of Interventions on Behavior**

Describe what **positive reinforcers** have been tried and rate their level of effectiveness from 0-5, with 5 being very effective and 0 being completely ineffective. *Example: special activities (4); compliments (1)*

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Describe what **consequences** have been tried and rate their level of effectiveness from 0-5, with 5 being very effective and 0 being completely ineffective. *Example: losing privileges (2); call to parents (4)*

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**6. Analysis and Recommendation**

A) The presumed **function** or explanation of this behavior is  
*to get*  
*to escape or*  
*to control*

B) The problem behavior may be linked to a **skill deficit** in the following areas:

C) The problem behavior may be linked to a **performance deficit** in the following areas:

D) Next Steps:

*The student's behavior patterns may require instructional modifications or accommodations only.*

*The student's behavior patterns suggest that a Behavioral Intervention Plan is warranted.*

*Existing data is insufficient for a complete functional assessment. Follow-up/additional data is needed as follows:*

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Signature Title Date

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Signature Title Date

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Signature Title Date

***The following person(s) conducted this Functional Behavioral Assessment:***

# Appendix G: Behavioral Intervention Plan (BIP)

## Behavioral Intervention Plan

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

School: \_\_\_\_\_ Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Area(s) of exceptionality: \_\_\_\_\_

*This **Behavioral Intervention Plan (BIP)** is being created for this student because persistent and/or severe behavior is being exhibited that interferes with the student's learning or the learning of others and interventions are needed to positively redirect the targeted behavior. The approach identifies the type and cause of the behavior and then helps the student learn replacement behaviors through a combination of positive interventions and supports, as well as appropriate consequences. In addition to defining a how the student is to be taught the skills needed for behavior modification, the plan includes provisions for monitoring progress and crisis management.*

### **Problem Behavior:**

#### **Is this behavior a Skill Deficit or a Performance Deficit?**

Skill deficit: The student does not know how to perform the desired behavior.

Performance deficit: The student knows how to perform the desired behavior, but does not consistently do so.

**Presumed FUNCTION (cause) of the behavior:** What desired thing(s) is the student trying to **Get?** or What undesired thing(s) is the student trying to **Avoid?**

### **Intervention Strategies:**

#### *1. Environment and/or Circumstances*

Can the environment or circumstances that trigger the behavior or the result of it be adjusted? If so, how?

#### *2. Curriculum and/or Instruction*

Would changes in the curriculum or instructional strategies be helpful? If so, what and by whom?

#### *3. Other Strategies or Positive Supports (including school personnel, peers, or family)*

**Desired Replacement Behavior:**

What behavior will the student be taught to replace the targeted behavior? How and by whom?

**Rewards and/or Motivators:**

How will the student be reinforced so that the replacement behaviors are more motivating than the problem behavior?

**Consequences:** What consequences will be implemented for repeated occurrences of the problem behavior?

1<sup>st</sup> occurrence?

2<sup>nd</sup> occurrence?

3<sup>rd</sup> occurrence?

Continuing?

**Crisis Plan:** How will an emergency situation or behavior crisis be handled? (Define possible scenarios, including the use of in-school or out-of-school suspension, or aversive techniques, as appropriate)

**Monitoring of Behavior:** How will behavior be assessed and evaluated? What data will be collected? How and by whom? When will the plan be first reviewed for its effectiveness? Thereafter?

Additional notes/information regarding this BIP:

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## Appendix H: ASD Eligibility Criteria

### **Rett's Disorder (299.80)**

In order to differentiate between Autistic Disorder and Rett's Disorder, the following conditions must be addressed. Rett's Disorder includes:

A. All of the following:

1. Apparently normal prenatal and perinatal development.
2. Apparently normal psychomotor development through the first 5 months after birth.
3. Normal head circumference at birth.

B. Onset of all of the following after the period of normal development:

1. Deceleration of head growth between ages 5 and 48 months.
2. Loss of previously acquired purposeful hand skills between 5 and 30 months with the subsequent development of stereotyped hand movements (e.g., hand wringing or hand washing).
3. Loss of social engagement early in the course (although often social interaction develops later).
4. Appearance of poorly coordinated gait or trunk movements.
5. Severely impaired expressive and receptive language development with severe psychomotor retardation.

### **Childhood Disintegrative Disorder (299.10)**

In order to differentiate between Autistic Disorder and Childhood Disintegrative Disorder, the following conditions must be addressed. Childhood Disintegrative Disorder includes:

A. Apparently normal development for at least the first 2 years after birth as manifested by the presence of age-appropriate verbal and nonverbal communication, social relationships, play, and adaptive behavior.

B. Clinically significant loss of previously acquired skills before age 10 in at least *two* of the following areas:

1. Expressive or receptive language
2. Social skills or adaptive behavior
3. Bowel or bladder control
4. Play
5. Motor Skills

C. Abnormalities of functioning in at least *two* of the following areas:

1. Qualitative impairment in social interaction (e.g., impairment in nonverbal behaviors, failure to develop peer relationships, lack of social or emotional reciprocity).
2. Qualitative impairment in communication (e.g., delay or lack of spoken language, inability to initiate or sustain conversation, stereotyped and repetitive).
3. Restricted, repetitive, and stereotyped patterns of behavior, interest, and activities including motor stereotypes and mannerisms.
4. The disturbance is not better accounted for by another specific Pervasive Developmental Disorder or by Schizophrenia.

**Asperger's Disorder (299.80)**

To make an educational determination that a child has Asperger's Disorder, consider these characteristics.

A. Qualitative impairment in social interaction, as manifested by at least *two* of the following traits:

1. Marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body posture, and gestures to regulate social interaction.
2. Failure to develop peer relationships that are appropriate to developmental level.
3. Lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., lack of showing, bringing or pointing out objects of interest to other people).
4. Lack of social or emotional reciprocity.

B. Restricted, repetitive, and stereotyped patterns of behaviors, interests and activities, as manifested by at least *one* of the following characteristics:

1. Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal in either intensity or focus.
2. Apparent inflexible adherence to specific nonfunctional routines or rituals.
3. Stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole body movements).
4. Persistent preoccupation with parts of objects.

C. The disturbance causes clinically significant impairment in social, occupational or other important areas of functioning.

D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3).

E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self help skills, adaptive behavior (other than in social interaction) and curiosity about the environment in childhood.

F. Criteria are not met for another specific Pervasive Developmental Disorder or for Schizophrenia.

**Pervasive Developmental Disorder Not Otherwise Specified  
(Including Atypical Autism) (299.80)**

This category should be used when there is a severe and pervasive impairment in the development of reciprocal social interaction associated with impairments in either verbal or nonverbal communication skills or with the presence of stereotyped behavior, interests, and activities—but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder. For example, this category includes “atypical autism” presentations that do not meet the criteria for Autistic Disorder because of late age of onset, atypical symptomatology, subthreshold symptomatology, or all of these.