

Special Education
... a service, not a place.

**The
Educational
Aspects of
Autism
Spectrum
Disorders**

Revised
November 2008

The Educational Aspects of Autism Spectrum Disorders

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Introduction

We know more today than ever before about autism spectrum disorders. Research continues to uncover more and more information about autism including possible causes. (Center for Disease Control and Prevention, 2007). As a result, greater attention is being devoted to early diagnosis, early intervention, and the development of educational strategies for the many learning differences of children with autism spectrum disorders.

Researchers and other professionals are now able to provide more information about what autism spectrum disorders are (and are not) and are better able to provide researched-based recommendations to those who work with children and youth with autism spectrum disorders. Nonetheless, determining effective educational interventions remain multifaceted and complex to many involved on a day-to-day basis with children and youth with autism spectrum disorders.

Parents, teachers, speech-language pathologists, school psychologists, and other specialists involved in the educational aspects of autism spectrum disorders, want and need to know how best to enable individuals with autism to reach their potential. This requires that each learn how to utilize existing “best practices” information to meet potential overlapping needs of this group as a whole, but not at the expense of addressing the very individual needs of each student with an autism spectrum diagnosis. Indeed it is critical to understand that while there may be similarities, *no two children have identical needs*.

Purpose

The purpose of this manual is to: 1) provide education related information about autism spectrum disorders; and 2) assist Individualized Education Program (IEP) teams, including parents, develop researched-based educational programs for children and youth who qualify for special education services under the autism disability category.

This manual will address the following questions:

- What steps should parents take first when their child is diagnosed with an autism spectrum disorder?
- What are autism spectrum disorders (ASD)?
- What are the indicators of an appropriate educational program for a student with ASD?
- What are the various methodologies or intervention strategies available to parents and educators working with a student with ASD?
- Where can parents and educators find additional information on autism spectrum disorders?

Please note this manual is not designed to answer every question about ASD. Instead its purpose is to provide a variety of practical education related information, from a range of sources, to

families and educators about autism spectrum disorders. Like any child receiving special education services, keys to determining appropriate educational services for the student with an ASD are ongoing identification of the student's needs and provision of an individualized educational program designed specifically to meet those needs.

Regardless of shared diagnosis, no two children have identical needs.

Reference:

Center for Disease Control and Prevention. (February 9, 2007). Autism Information Center. Department of Health and Human Services. Accessed July 1, 2008 from website. <http://www.cdc.gov/ncbddd/autism/overview.htm>.

Getting Started: Strategies for Parents

An ASD diagnosis carries with it a wide range of reactions and feelings for the parents and family members of the child. Among these are denial, guilt, anger, fear, and confusion. It is important to remember you are not alone. Recognize these feelings, if you experience them, and realize you can work through them as you begin to learn more about your child's diagnosis and the many ways you can meet the challenges you face.

The Indiana Resource Center for Autism (IRCA) suggests the following strategies when first told of your child's ASD diagnosis.

Strategy 1: Learn as much as possible about autism spectrum disorders, especially your child's particular diagnosis, and how it affects your child.

The Office of Superintendent of Public Instruction (OSPI) funds The Autism Outreach Project. This is a good place to start!

Autism Outreach Project (AOP):

A statewide project which coordinates staff development and parent/community training to support services for children and youth with autism spectrum disorders.

Available resources/services:

- Information on educational interventions and links to national and local resources related to autism spectrum disorders.
- A lending library with hundred of books, videos, and curriculum material spanning the autism spectrum with an array of resources in English, Spanish and other languages.
- Staff who respond to questions and provide resource information about parent support groups and associations, autism consultants, recreational opportunities, government services, medical providers, higher education, research, early intervention, educational interventions and training opportunities.
- Website: <http://autism.esd189.org>
- Toll free telephone number (1-888-704-9633)

Strategy 2: Learn as much as possible about the laws, government service, therapies and the array of educational approaches, as well as the medical and educational terms and various acronyms related to autism spectrum disorders.

Remember:

- Other families and professionals have been down this road and can help unravel the web of laws, agencies, services, and resources. A list of resources is provided at the end of this manual that will help you locate national, state and local resources.
- Support groups for families of children with disabilities also exist in many locales. They can assist in identifying types and availability of services in

your area. They can also provide comfort, acceptance, support, and understanding of issues as your child progresses through each stage of life. Even if you choose not to actively belong to a support group, making an initial contact can provide valuable information.

Strategy 3: Learn how best to participate in important decisions related to your child's education, whatever the age of your child. Children with autism spectrum disorders can and do learn!

Note the following about your child's education:

- The Individuals with Disabilities Education Act (IDEA) is a federal law providing for the education of children with disabilities. Part C of IDEA provides for early identification and intervention for birth through two year olds with disabilities. In Washington State, the Infant Toddler Early Intervention Program (ITEIP) housed within the Department of Social and Health Services (DSHS) oversees Part C early intervention services. ITEIP information can be found at <http://www.wa.gov/dshs/iteip/iteip/html>.
- IDEA also guarantees a free appropriate public education (FAPE) for students eligible for special education services ages three to twenty-one years. Local school districts serve preschool and school age children with autism spectrum disorders. Each school district has a set of procedures, which are available upon request, outlining the district's implementation of state special education rules. Parents may make a referral for special education services by contacting the local school district special education office. A map to assist you in finding the school district where you live can be found at <http://www.k12.wa.us/maps/SDmainmap.aspx>.
- IDEA emphasizes the importance of family involvement when it comes to making educational decisions about their child. Parents who familiarize themselves with special education basics (or refresh their understanding of special education basics) will help to make you a more informed and valued member of your child's Individualized Education Program (IEP) team. It will also improve your ability to effectively advocate on behalf of your child.
- In Washington, state regulations for implementing IDEA, the federal special education law are at chapter 392-172A WAC (Washington Administrative Code): *Rules for the Provision of Special Education Students* (http://www.k12.wa.us/specialed/pubdocs/wac/WAC_392_172a.pdf). This document contains the state's rules that support IDEA.

Strategy 4: Create a system for keeping and organizing your child's educational records.

- Over time you will likely access a variety of services from numerous professionals. There will come a time when you need to access something specific in your child's records. For example, you may be asked about your

child's developmental history to inform decisions about important diagnostic and evaluation information that can influence the educational process even into adulthood.

- Organizing the information in a concise manner will help you remember the information, and will also make it easier for professionals to utilize information you share from your files. Having a system in place will become increasingly valuable as your child gets older and the amount of information and records increases.

Strategy 5: Identify your child's needs, your needs as a parent(s), and your family's needs.

Remember:

- Family members may have different needs, and these may change as your child gets older. It can be challenging to balance routines, schedules, and plans; however, it is important that all family members feel accepted, supported, and valued.
- Service needs for your child may change with time. Examples of the types of services individuals with autism spectrum disorders and their families may require include: physical, occupational, and speech-language therapy, residential programs, medical and dental care, financial assistance programs, advocacy, legal information, respite care, sibling and family support, education, socialization, recreation, and vocational needs.
- Available services may differ from community to community. The Washington State Autism Outreach Project can assist in locating critical agencies, supports, and resources (see information provided under Strategy 1).

Strategy 6: Make it a priority to enjoy time with your family. This is good for every family member, including your child with ASD!

- Establish time for all family members to rejuvenate. You will all have ups and downs, so it is important to keep things in perspective and strive for balance in your lives. Take time for yourselves to reduce the stress that is part of parenting any child, but perhaps intensified when your child has disabilities.
- Laugh together to relieve pressures and stress.

References:

Indiana University, Indiana Resource Center for Autism, Access Autism Modules. (2008). <http://www.iidc.indiana.edu/irca/fmodules.html>.

Washington State Autism Outreach Project. <http://autism.esd189.org>.

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Autism Spectrum Disorders (ASD)

Determining appropriate approaches, methodologies, and treatment for a child with ASD requires an understanding of that child's unique strengths and specific learning needs. Therefore, we will begin by defining autism spectrum disorders (as a group).

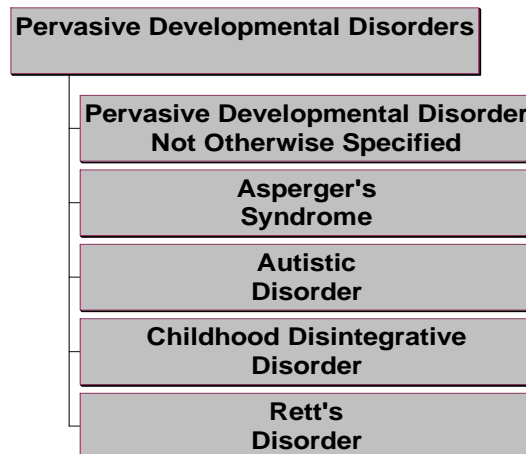
Characteristics Associated with Autism Spectrum Disorders

Autism spectrum disorders are disabilities with many variations in symptoms and/or behaviors. Furthermore, people with autism spectrum disorders vary widely in abilities, intelligence, and behaviors across those indicators. In other words, characteristics associated with autism spectrum disorders may be observed in a range of mild to very severe forms. For example, some children do not speak; others have limited or even advanced language skills. Those with more advanced language skills tend to use a small range of topics, as well as have difficulty with abstract concepts and pragmatic (practical) language skills. Repetitive play skills, a limited range of interests, and impaired social skills are generally evident as well. Unusual responses to sensory information such as loud noises, lights, and certain textures or food or fabrics are also common. Because the three disability groups included in autism spectrum disorders are syndromes (i.e., a collection of symptoms), different children experience distinct characteristics with varying degrees of impairments. Each child is at different developmental levels from other children. Each child will be ready to learn certain skills at different ages.

The Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR) is used to classify disabilities and provides refined definitions of autism spectrum disorders. ASD are a set of disability groups that are identified under the heading of Pervasive Developmental Disorders (PDD). PDD are characterized by severe and pervasive impairment in several areas of development, including reciprocal social interaction skills, communication skills, or the presence of stereotyped behavior, interests, and activities. Figure 1 shows the five disability disorders under the umbrella of PDD.

Figure 1

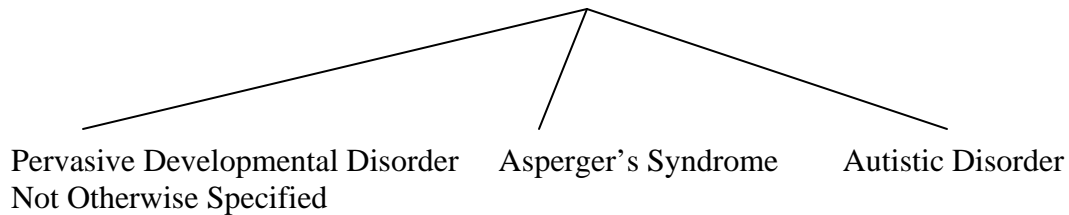
Pervasive Developmental Disorders As Classified by the DSM-IV-TR



Autism spectrum disorders (see figure 2) account for three of the five Pervasive Developmental Disorders: pervasive developmental disorder-not otherwise specified, Asperger's Syndrome, and autistic disorder. The term, autism spectrum disorder, implies that the three disorders share common characteristics, but also have unique qualities that allow for a differential diagnosis of each. Consequently, the severity of impairment varies within and across each individual diagnosed with an autism spectrum disorder.

Figure 2

Autism Spectrum Disorders (ASD)



A brief description of the three categories under the term ASD is provided below.

Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS)

The category of Pervasive Developmental Disorder-Not Otherwise Specified is used when a child does not meet the diagnostic criterion for other disabilities, but does display a severe and pervasive impairment in the development of social interaction or communication skills, or the presence of restricted, repetitive, and stereotyped patterns of behavior, interests, and activities.

Asperger's Syndrome

Children with Asperger's Syndrome have significant difficulties in social interaction and may exhibit restricted, repetitive and stereotyped patterns of behavior, interests, and activities. Asperger's syndrome causes observable significant impairment in social, occupational or other important areas of functioning. In contrast to Autistic Disorder, people with Asperger's Syndrome do not display clinically significant delays in language acquisition, although there may be deficits in the practical use of language and social-communication skills. Students with Asperger's Syndrome typically do not demonstrate cognitive delays during the first three years of life.

Autism/Autistic Disorder

Children with autism have significant difficulties in social interaction, expressive and receptive communication and may exhibit restricted, repetitive and stereotyped patterns of behavior, interest, and activities. Onset of autism may be evident before age three, with observable delays and/or abnormal functioning in social interaction, language, or symbolic play.

Common Social, Communication, Behavior, Learning, and Related Characteristics

Among all the possible behavior characteristics in autism spectrum disorders, some common behaviors do occur. It is important to be familiar with those as a basis of understanding their impact on educational programming. While not all of these characteristics will be the same in all diagnosed cases, they will include difficulties in the areas of social interaction, communication, behavior, sensory/motor processing, and learning new skills. Figure 3 provides a quick look at some of the common behavior characteristics observed in infants and children with autism spectrum disorders. It should be noted that the table is neither all-inclusive nor is it intended to be used for diagnostic purposes. The characteristics will vary at different ages for individual children with autism spectrum disorders. Characteristics commonly associated with autism spectrum disorders are not exclusive to PDD-NOS, Asperger's, or autism and could appear in individuals diagnosed with other disabilities.

Figure 3

Common Characteristics in Autism Spectrum Disorders

Social Characteristics

Communication Characteristics

<ul style="list-style-type: none"> • May exhibit poor eye contact. • May not differentiate between strangers and those seen every day or show anxiety towards strangers. • May have a narrow range of emotions— inappropriate displays. • May not enjoy social games like peek-a-boo or patty cake. • May lack pretend/imaginative play skills. • May not show an awareness of others. • May have difficulty reciprocating emotionally and socially and have difficulty relating to others. • Often demonstrate little or no interest in establishing friendships, or have difficulty in developing and maintaining friendships. • Difficulty initiating or sustaining play with peers or groups. • May lack understanding of social cues, gestures, emotional expressions. • May lack understanding of how others feel/express moods. • May have strange fears or lack fear of real danger. • May repeat preferred play schemes over and over again. 	<ul style="list-style-type: none"> • May have difficulty reading and showing emotion (e.g. little smiling or bland face). • May be unusually quiet. • May not respond to name, or appear not to hear or attend. • May not babble and coo. • Language may be delayed. • Stereotyped or idiosyncratic speech is common -may have echolalia (repeating words or phrases they hear) either immediately or later. • Used to say a few words, but now does not. • Often have trouble imitating or using nonverbal gestures and appropriate facial expressions to communicate. • May have difficulty initiating interaction with others. • May appear not to be interested in communicating with others. • May not imitate or demonstrate functional and pretend play. • May not point or wave bye-bye. • Abnormal pitch, intonation, rhythm, stress. • Grammatical structure may appear immature. • Difficulty understanding & interpreting pragmatic language.
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Behavior Characteristics

Learning Characteristics

<ul style="list-style-type: none"> • May dislike being held or stiffen when held. • Exhibits repetitive body movements such as hand or finger flapping or rocking. • May be extremely sensitive to some auditory stimuli. • May not respond to some auditory stimuli. • May exhibit stereotyped and repetitive use of 	<ul style="list-style-type: none"> • Will perform unevenly within and across skill areas, sometimes demonstrating exceptionality in some areas. • Resists changes in the learning environment. • Has difficulty waiting or using unstructured time.
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<p>language or idiosyncratic language.</p> <ul style="list-style-type: none"> • May perseverate on certain activities. • May demonstrate persistent preoccupation with parts of objects. • May resist changes in routines; unreasonable insistence on following routine. • May lack fear of real danger. • May explore environment by inappropriate methods such as licking, smelling, and handling objects. • Avoids looking at other people. • Avoids contact with other people, preferring to touch objects. 	<ul style="list-style-type: none"> • May not generalize skills to other settings. • Has problems with abstract and conceptual thinking; requires concrete interactions. • Uses and interprets speech literally; doesn't usually read facial expressions, body language or other social cues. • May be impulsive, compulsive, or perseverate on certain activities; behavior is inconsistent. • May be distracted by auditory or visual stimuli. • Has trouble with organizational skills, planning, or making choices. • Relies on learned routines, cues, and other learned patterns.
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Related Characteristics in Autism Spectrum Disorders

Sensory/Motor Characteristics

Attention/Organization Characteristics

<ul style="list-style-type: none"> • May be over or under sensitive to certain sensory stimuli: <ul style="list-style-type: none"> ○ Sounds ○ Tastes ○ Visual input ○ Textures ○ Smell • May have insensitivity to pain/ high pain threshold. • Poor fine motor skills (e.g. writing may be extremely difficult and laborious or sloppy, off the lines, and out of the boundaries). • Gross motor skill difficulties <ul style="list-style-type: none"> ○ Difficulty with coordination ○ Balance problems ○ Playground activities or sports may be difficult, awkward or frustrating. • Limited awareness of the physical presence or needs of others. • Unaware of their bodies place in space. 	<ul style="list-style-type: none"> • Poor Concentration: <ul style="list-style-type: none"> ○ Often off task ○ Distractible ○ Overloads easily ○ May be disorganized ○ Difficulty sustaining attention. • Poor organizational skills: <ul style="list-style-type: none"> ○ May lose papers, assignments, etc. ○ Desk may be messy ○ Backpack never emptied ○ May not be able to predict or organize things needed for homework: book, packet, etc. ○ May not remember homework ○ Papers can be messy and written work unorganized ○ Difficulty knowing how and where to start work.
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Other Considerations in Autism Spectrum Disorders

Although there are no specific known causes of autism spectrum disorders, current research indicates the primary cause is some form of biological or neurological disorder (Boyle, Van

Naarden Braun and Yeargin-Allsopp, 2004; Center for Disease Control and Prevention, 2007; Muhle, Trentacoste, and Rapin, 2004). Autism spectrum disorders are not considered a mental illness, and there is no credible evidence supporting the notion that deficient or improper parenting can cause autism spectrum disorders. Other factors can be associated with or found in conjunction with autism. These include conditions such as variable cognitive impairments, fragile X syndrome, seizure disorders, mental illness, attention deficit hyperactivity disorder, anxiety, depression, and obsessive-compulsive disorders (Sturm, Fernell, and Gillberg, 2004).

The scientific community continues its efforts to discover answers to the questions about autism. As we learn more from their efforts, and as we gain more insights from their research, better educational programming for persons with autism spectrum disorders will follow.

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Early Intervention and Special Education Services

Background

The Individuals with Disabilities Education Act (IDEA) is the federal law that guarantees early intervention services (Part C) for children ages birth through two years and special education services (Part B) to children and youth ages three to twenty-one years.

Autism is one of the disabilities specifically defined in IDEA and the Washington Administrative Code (WAC) 392-172A-01035.

WAC 392-172A-01035(2)(a)(i) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a student'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 student's education performance is adversely affected primarily because the student has an emotional behavioral disability as defined in this chapter.

(iii) A student who manifests the characteristics of autism after age three could be identified as having autism if the criteria in (a)(i) are satisfied.

It is important to recognize that a diagnosis of PDD-NOS, Asperger's Syndrome or autism, alone is not enough to qualify your child for special education services. WAC 392-172A-01035(1)(a) defines a student eligible for special education as a student who (1) has a disability or disabilities, (2) whose disability(ies) adversely affects educational performance, and (3) whose unique needs cannot be addressed exclusively through education in general education classes with or without individual accommodations. The third part means a student requires specially designed instruction. Specially designed instruction is organized and planned instructional activities, which adapt, as appropriate, the content, methodology, or delivery of instruction to address the unique needs that result from a student's disability. To meet the three eligibility components above a comprehensive evaluation of the student must be conducted.

Birth through Two Years of Age

The Individuals with Disabilities Education Act (IDEA), Part C provides for early identification and intervention for birth through two year olds with disabilities. The lead agency for Part C in Washington is the Department of Social and Health Services (DSHS). The DSHS Infant Toddler Early Intervention Program (ITEIP) is responsible for administering the state system of early intervention services. The State Interagency Coordinating Council (SICC) advises and assists DSHS ITEIP in administration of the state early intervention program.

There is a local lead agency and County Interagency Coordinating Council (CICC) in each county or Tribal area. Like the SICC, the CICC serves as an advisory body to the local lead agency working in close collaboration with other agencies and stakeholders in the local community to provide early intervention services. Those include:

- Families who have children with disabilities
- Family Resources Coordinators (FRC)
- Service providers
- Public school personnel
- Members of the broader community

Early intervention emphasizes a family-centered approach. Families of infants and toddlers are always at the center of the service coordination. Families can enter the early intervention system through many access points. ITEIP provides support for the local early intervention services needed to assist families in maximizing the development of infants and toddlers within their natural routines, activities, and culture.

The early intervention process is initiated by a referral to the local lead agency. Anyone can make a referral, with the family's permission – a doctor, a parent, childcare provider, or a friend of the family – if there is a concern about an infant or toddler's development. The Family Resource Coordinator (FRC) is the person who works closely with the family to ensure that the services are designed to meet the needs of each eligible infant or toddler and the needs of the family.

To be eligible for early intervention services, infants and toddlers must be identified and assessed using tests and procedures that are appropriate for very young children. The findings from these evaluations determine if the infant or toddler is experiencing delays in one or more of the five developmental areas:

1. Cognitive – ability to learn and learning style
2. Physical – ability to move, see, and hear
3. Communication – ability to understand language and express needs
4. Social or emotional – ability to relate with others
5. Adaptive skills – ability to dress, eat, and take care of oneself

Once the evaluation and assessment procedures are complete, and the infant or toddler is determined to be eligible for services, the family works with a team to develop an Individualized Family Service Plan (IFSP). The IFSP becomes the written description of services and supports required for an infant or toddler with a disability and his/her family. Services may be provided by a number of different agencies. It should be noted it is optional for school districts to provide programs that serve children age birth through two. An important part of the program is to ensure smooth connections or transitions as children move from the early intervention program to preschool education or other community services. A transition planning conference is arranged by the county Part C lead agency at least ninety days (or at the discretion of all parties up to six months) before the child's third birthday. This transition meeting is for the purpose of planning a child's transition into the Part B preschool program, if child is eligible for these services, or into other appropriate services, such as Head Start, community preschool, etc. If a child is eligible for IDEA Part B (preschool) services, the Individualized Education Program (IEP) is developed by a team that includes the child's parents, educators and school administrators. The IEP, like the IFSP, is the written document that identifies a child's strengths, needs and educational goals. The IEP guides the services for the student eligible for special education.

Three to Twenty-one Years of Age

Washington state regulations, supporting IDEA Part B, provide for special education services for eligible students age three to twenty-one. The school district evaluation group, which includes the child's parents, determines whether a child/youth is eligible for special education services. If the child/youth is eligible for special education services, an Individualized Education Program (IEP) is developed delineating the services to be provided.

IDEA entitles families to be actively involved in making decisions about their children's education. These and other student and parent rights are contained in a document called the Procedural Safeguards. Becoming familiar with the contents of this document will help you to become an informed and valued member of your child's IEP team. If you have not received a copy of the Procedural Safeguards from your school district, contact them directly and request a copy. This document can also be found at <http://www.k12.wa/specialed/publications.aspx>.

Post-School Transition

Transition services mean a coordinated set of activities for a child with a disability that helps prepare them for life after high school. These services support one or more post secondary student goals related to one or more of the following: postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation.

Washington state regulations, consistent with IDEA (2004), provide a framework for the provision of transition planning and services for eligible students. Regulations require that transition services be included in the student's IEP beginning the year in which the student turns sixteen years old, or earlier, if appropriate. This IEP should include appropriate measurable postsecondary goals based on results of assessments completed before this IEP meeting, related to training, education, employment, and when appropriate, independent living skills. The IEP must include the transition services and courses of study needed to assist the student in reaching his or her postsecondary goals. There are a number of services and supports available to assist in the transition process. Contact your local school district and/or review the list of resources below for more information.

References:

Center for Change in Transition Services, Office of the Superintendent of Public Instruction, Seattle University - College of Education, PO Box 222000, Seattle, WA 98122, (206) 296-6494, <<http://www.seattleu.edu/ccts/>>.

Department of Social and Health Services, Infant Toddler Early Intervention Program Public Awareness Materials, Infant Toddler Early Intervention Program, Olympia, WA, September 2000, <<http://www.wa.gov/dshs/iteip/iteip.html>>.

Division of Vocational Rehabilitation, State Office Lacey, Mailing Address: P.O. Box 45340, Olympia, WA 98504, Street Address: 612 Woodland Sq. Loop SE, Lacey, WA 98503-1044, 1-800-637-5627 Voice/TTY, Voice/TTY (360) 438-8000, FAX: (360) 438-8007, <<http://www1.dshs.wa.gov/dvr/index.htm>>.

Office of the Superintendent of Public Instruction, *Rules for Provision of Special Education to Special Education Students*, Chapter 392-172A WAC, Olympia, WA, effective July 30, 2007, <<http://www.k12.wa.us/specialed/>>.

Washington State School Directors' Association. (2002). *Resource and Procedures Manual for the Identification, Evaluation and Education of Students with Disabilities*©, 3rd ed., 221 College Street NE, Olympia, WA 98516, (360) 493-9231.

Individualized Family Service Plan (IFSP) and Individualized Education Program (IEP)

The overall goal of educational programs for all students, including students with disabilities, is for a life with independence and functioning within the community. Reaching this goal requires an education based on the individual needs of the child/student. Setting the individual goals for each child requires realistic assessment of present levels of ability, as well as identification of learning deficits. To this end, it is helpful to regularly ask some of the following questions:

- ❖ What can the child with an autism spectrum disorder do now?
- ❖ What skills does the child excel in?
- ❖ What skills can be enhanced?
- ❖ What skills does the student need to be able to seek employment and live in the community in adulthood?
- ❖ Is there improvement in the child's social and language development?
- ❖ Are negative behaviors being appropriately addressed?
- ❖ What kind of program does it take to accomplish the overall goal?

We know that the best learning environment for students with ASD is one that is in a structured classroom that supports an educational program that is consistent and predictable for students. In addition, students with ASD learn better when information is presented visually as well as verbally. To the maximum extent appropriate, children with autism spectrum disorders should have opportunities to interact with nondisabled peers who can provide valuable modeling of appropriate behavior, language, social, and play skills.

Students with ASD should also have training in community living skills and vocational skills at the earliest possible age. They need to be taught how to interact with others and should be provided opportunities to develop relationships with other students. Teaching safety habits, such as crossing the street or asking for help when needed, is critical to developing independence. Learning to make simple purchases and to handle money is another example of a needed skill. All of these skills may be difficult, in varying degrees, for the student with ASD to learn. However, ongoing assessment of abilities along with the individualized education plan will facilitate the achievement of maximum independence for each child with ASD.

The importance of family involvement in the educational program is paramount. Family involvement allows for generalization (i.e. carry over) of learning activities, experiences, and approaches to and from school, home and community. Generalization to home and community is essential for each child with ASD to develop maximum independence and integration into the community. There are also specialized adult support services in employment and living arrangements to support youth and adults with ASD to live and work with varying degrees of independence in the community.

The following sections will provide an overview of the strategies essential to implementing an effective educational program. Note, however, that these are general descriptions and that educational programs must be individualized to meet the assessed needs of each child.

Quality Program Indicators

The importance of individualizing education programs for children with autism spectrum disorders and the importance of family involvement in those educational programs cannot be overstated. Programs will differ from child to child because of the uniqueness of autism spectrum disorders and the range of potential symptoms involved. There is consensus among researchers, practitioners, and educators that appropriate intervention begins early, usually by thirty months. Furthermore, researchers and professionals have identified a number of strategies that are essential to implementing an effective program. The following are suggested components or indicators to be considered in developing and maintaining a quality educational program for children with ASD.

1. Comprehensive team approach involving the family
2. Comprehensive assessment of skills and deficits
3. Clearly defined goals addressing the characteristics of autism spectrum disorder
4. Structure the environment
5. Effective teaching strategies
6. Applying functional behavior assessment to problem behavior
7. Assessment of the intervention (data collection)
8. Transition planning
9. Opportunities with peers

Component 1: Comprehensive Team Approach Involving the Family

As discussed throughout this manual, autism spectrum disorders are characterized by deficits in communication, behavior, and social skills. Consequently, an effective program for students with ASD requires the expertise and input of family members and staff from multiple disciplines trained to understand the implications of autism spectrum disorders. A comprehensive team approach includes the child's parents and, as appropriate, related services personnel such as speech-language pathologists, psychologists, and/or occupational therapists to address the child's social, behavior, language and motor skills as determined by the evaluation results. Furthermore, a comprehensive team includes special and general education teachers and/or paraeducators to ensure progress in meeting the individualized educational goals of each student. Working together, a comprehensive team assists in establishing and maintaining consistency of teaching and intervention techniques across individuals, lessons, and settings, increasing the potential for students with ASD to acquire, maintain, and generalize new skills and abilities.

Summary Box: Comprehensive Team Approach
• Parents are active members of the educational team, contributing to decision-making, training issues, and follow-up provisions.
• All team members work together to assist in establishing and maintaining consistent interventions.
• Sufficient classroom support allows the student to demonstrate progress in meeting the individualized educational goals, objectives, and outcomes.
• Related services personnel, such as speech-language pathologists, psychologists, and occupational therapists address social, behavior, language and motor skills as identified by evaluation results.
• Goals are consistently generalized throughout the educational program.

As previously mentioned, parent and family involvement is an essential component of the student with an autism spectrum disorder's educational program. It is important for professionals and parents to discuss how often and in what format ongoing communication can best take place. Although frustrations are often inevitable, it is important for staff and parents to keep communication as positive and free of blame as possible. Professionals need to present information in a clear fashion, avoiding the use of educational or medical terminology that may be intimidating and confusing to family members. Problems experienced by family or school members should be discussed as soon as they arise and before they get out of control. To accomplish this task, teachers should involve parents in problem solving and parents should not be afraid to ask questions about any aspect of their child's program.

<ul style="list-style-type: none"> Professional and parents discuss how often and in what format ongoing communication can best take place.
<ul style="list-style-type: none"> Professionals present information in a clear fashion, avoiding the use of educational or medical jargon.
<ul style="list-style-type: none"> Problems are discussed as soon as they arise and before they get out of control.
<ul style="list-style-type: none"> Teachers involve the parents in problem solving.
<ul style="list-style-type: none"> Parents are not afraid to ask questions about any aspect of their child's program.

Component 2: Comprehensive Assessment of Skills and Deficits

A comprehensive assessment of a student's skills and abilities is the corner stone of a quality Individualized Family Service Plan (IFSP) for children under three and Individualized Education Program (IEP) for children/students ages three to 21. By accurately determining the student's skills, strength and needs, appropriate goals and objectives can be written and accurate baselines determined.

Assessments may differ because of each student's age and ability level. However, it is essential to consider the characteristics of autism spectrum disorders in completing each assessment.

Thus, assessment may include:

- pre-academic and academic skills
- pre-vocational and vocational skills
- self-help and adaptive skills
- communication
- socialization
- sensory regulation
- motivation and reinforcement
- behavior
- fine and gross motor
- leisure activities
- cognition

Methods of assessment will be dependent upon individual student needs and ability level. WAC 392-172A-03005 through 03040 provides a framework for the identification process and evaluation procedures. For further information on specific assessment tools, contact the special education director in your local school district.

It is important to realize that assessment is an on-going process. For each child, a formalized assessment of skills must be conducted at regular intervals. The on-going assessment results are then utilized to develop and change, as needed, the IFSP or IEP.

Summary Box: Comprehensive Assessment of Skills and Deficits
<ul style="list-style-type: none"> • Comprehensive assessment of skills, strengths and deficits in multiple domains: pre-academic, academic, pre-vocational, vocational, self-help, adaptive, communication, socialization, sensory regulation, motivation, reinforcement, behavior, fine and gross motor, and leisure activities, as well as cognition.
<ul style="list-style-type: none"> • Parents are involved in the assessment process, contributing valuable information about their child’s skills, strengths, interests, and needs.
<ul style="list-style-type: none"> • Assessment considers the characteristics of the disability.
<ul style="list-style-type: none"> • Assessment data is utilized to create appropriate goals and objectives.
<ul style="list-style-type: none"> • Assessment data is used to determine accurate baseline of skills, strengths, and needs.
<ul style="list-style-type: none"> • Assessment is an on-going process, conducted at regular intervals, to measure progress and as a guide for planning what to teach next.

Component 3: Clearly Defined Goals

The key to teaching new skills, or improving emerging skills, is creating clearly defined IFSP outcomes or IEP goals that are developmentally appropriate, functional, and based on the assessment results, student’s strengths and interests, and individual characteristics of autism spectrum disorders. The IEP process and procedures for eligible special education students in Washington, including the vital role of parents in the development and implementation of the IEP are found in Chapter 392-172A WAC. Clearly, a number of factors must be considered in developing individualized goals for students with ASD. Although individual goals will vary for each child based on their age, diagnostic characteristics and ability level, research has revealed that attention paid to the areas below may increase the child’s ability to benefit from the educational experience. Based on the results of the child’s evaluation, goals may be written in one or more of the following areas:

- **Attention** (awareness of others, objects, or activities) - Attention goals may focus on sustained attention; joint attention; and shifting attention from event to event, object to object, object to person, and person to object.
- **Imitation** – Imitation is an essential prerequisite skill in learning from others. Imitation goals may include imitation with objects, motor actions, oral motor actions, vocalizations, verbalizations, gestures, academic tasks, and social skills.

- **Communication** – Communication goals may focus on expressive and/or receptive language and include verbal or augmented communication skills, social-communication skills, and the use of functional communication systems to provide alternatives to challenging behaviors.
- **Social development** – Social development is a core deficit area for individuals on the autism spectrum. Goals in this area may include body language, manners, conversation skills, friendship management, cooperative play skills, self-regulation, empathy, and conflict management, among others.
- **Play** – Developmentally appropriate and functional play skills can be targeted as an avenue to increase social skills with peers.
- **Cognitive development** – Cognitive goals may include a focus on conceptual development, problem-solving, academic performance, and executive functions (i.e. flexible, strategic plan of action to solve a problem or attain a future goal).
- **Challenging behaviors** – The function of challenging behaviors are identified and appropriate alternative behaviors are taught using positive behavior supports (for more information see *Component 7: Functional Approach to Problem Behavior*).
- **Sensory and motor development** – Individual differences in motor and sensory functioning are identified and planned for, including tactile/touch, visual, smell, sound, and taste; environmental stressors are identified and modified.
- **Adaptive behavior** – Essential life skills, including hygiene, self-help and safety are considered and planned for in order to enhance personal independence and create opportunities for greater community participation, including independent living, working and recreating.
- **Recreation/Leisure/Physical Education** – Recreation skills are important goals as they enhance cognitive, social and motor skills; enhance relationships between self and environment; shape appropriate use of unstructured time; increase opportunities to get physical exercise and stay healthy; and increase enjoyment of life.

In writing clearly defined outcomes or goals, the IFSP or IEP team should consider the following:

- Have meaningful IFSP outcomes or IEP goals been identified for the child/student?
- Were family members involved in identifying goals to be addressed at home and school?
- Are the outcomes developmentally significant and appropriate for the child/student?
- Have the characteristics of the autism spectrum disorder been considered?
- Do the goals promote educational gain?
- Do the goals allow for the learned skills to be used in other settings (home, community) and with a variety of people?

A review of goals would not be complete without a discussion of the importance of programming for the generalization and maintenance of newly acquired skills. Generalization is the ability to demonstrate a learned behavior or skill in a new or novel way, setting, environment, time or date, or among different individuals and materials. Maintenance, on the other hand, is the ability to demonstrate a skill over time. The ability to generalize and maintain meaningful skills that can be practiced and utilized within as well as outside of the classroom is essential to the success of each student's program. Meaningful tasks enhance the student's independence, give more opportunity for personal choice, and allow for more freedom in the community. Thus, the classroom teacher needs to work closely with the student's family as well as the support staff to ensure that new skills and desired behaviors can be practiced in all settings, at home with family members, at school with peers and school staff, and in the community.

Summary Box: Clearly Defined Goals
<ul style="list-style-type: none"> ● Parents are involved in identifying goals that can also be practiced at home.
<ul style="list-style-type: none"> ● Goals have clearly defined entrance and exit criteria, are developmentally appropriate, functional, and based on the assessment results, the student's strengths and interests, as well as the individual characteristics of the student.
<ul style="list-style-type: none"> ● Goals are individualized to the student and promote educational gains.
<ul style="list-style-type: none"> ● The team has considered these skill areas based on the evaluation results and the identified needs of the child: <ul style="list-style-type: none"> ○ Attention ○ Imitation ○ Communication ○ Social development ○ Play / Leisure ○ Cognitive development ○ Challenging behaviors ○ Sensory / motor development ○ Adaptive behaviors
<ul style="list-style-type: none"> ● The goals allow for generalization and maintenance of newly acquired skills at home, at school and in the community.

Component 4: Structure the Environment

Although all students thrive on routine and predictability, students with autism spectrum disorders are especially sensitive to changes in the environment or routine. Although the level of structure needed for each student will vary based on their age, diagnostic characteristics, and ability level, research has revealed that effective educational programs for students with autism spectrum disorders have structured environments which include:

- Physical Structure
- Routines
- Visual Supports

Physical Structure

Physical structure refers to the way each area in the classroom or school is set up and organized. To the student with ASD who may perceive the world differently or has unique sensory impairments, the school or classroom can be a confusing and overwhelming place. Therefore, the classroom should be set up and organized with clear physical and visual boundaries. Boundaries such as carpets, bookcases, dividers, or study carrels are frames that visually identify an area, helping the student to understand where different activities take place and materials are stored. Two examples of work stations can be seen in Figures 4a and 4b. Consider providing a specific location for quiet activities and individual work activities. Once the various locations and boundaries are identified, signs, symbols, schedules, and choice boards can provide visual information on the rules and expectations of each area. Additionally, when planning the physical structure of the classroom, it is important to consider and decrease visual and auditory distractions, such as bright lights and noises, e.g., bells, children's loud voices, chairs scraping on the floor, and the humming of overhead projectors, lights, or computers.

As identified by Henry and Smith Myles (2007), components of a well organized classroom include:

- Clearly defined areas for each activity;
- Visual reminders of classroom expectations;
- Adequate spacing to allow for personal space preferences, such as sitting at least twenty-four inches from another person; and
- Clear and consistent organization of materials, for example, by color coding and labeling (with written words, pictures or both).

Figure 4a

Example of Individual Work Stations

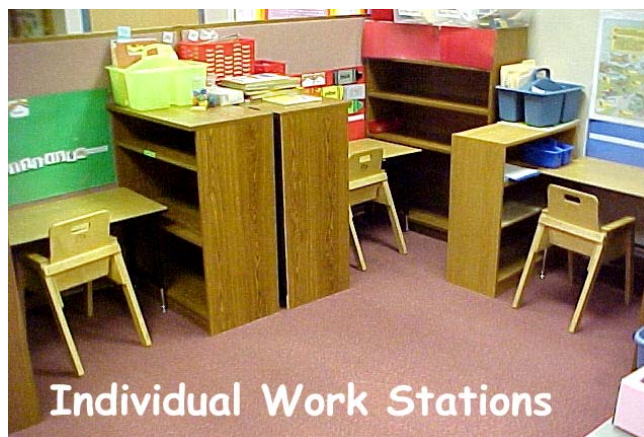


Figure 4b

Example of Individual Work Stations



Routines

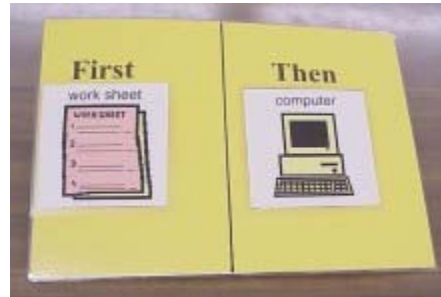
Students with ASD are more socially responsive and attentive to learning in the classroom, when information is presented in a highly predictable and routine manner. They can also become easily overwhelmed at even minor changes in their daily schedule or routine. To build independent work skills and to create a comfortable environment in which the student is ready to learn, develop and teach within routines. For example, a routine for independent seatwork may be as simple as “first we work”, and “then we take a break”. A routine for large group instruction might be, first, the teacher lectures; second, the students do group practice problems, followed by independent seatwork; and, third, take a break. Routines are also effective in teaching functional, leisure, and vocational skills. Of course, routines can become problematic if the student begins to demonstrate an obsession for sameness that results in negative behaviors when change occurs. To decrease the stress, plan and prepare the student for potential changes in the routine by utilizing transition strategies, role playing, and visual supports systems.

Visual Supports

Figure 5 shows an example of a visual support for routines. Students with autism spectrum disorders have strong visual skills. Visual organization of instruction and materials allows the student to utilize these visual learning strengths. Examples of helpful visual supports may include the use of activity schedules and calendars, posted rules, choice boards, and other organizational methods as appropriate for individual students.

Figure 5

Example of Visual Supports for Routines



“First, Then” routine

Activity schedules are a set of pictures or words that cue a student to participate in an activity. Depending on the student’s age and ability level, an activity schedule may be a three ring binder with only one activity on each page, it may be a partial or full day picture schedule, or it may be as complex as a day timer or personal digital assistant (PDA). Mini-schedules are a set of pictures or words that cue children to the individual steps involved in a complex task as shown by the two examples in Figures 6a and 6b. For example, a student learning to wash his/her hands, may have a mini-schedule breaking down the task of hand washing into four steps, including turning on the water, washing hands, turning off the water, and drying hands. Another example is a written mini-schedule for social studies class, breaking down the subject period into its component parts of silent reading, note taking during lecture, and small group work.

Figure 6a

Example of Mini-schedule



“Hand washing” mini-schedule

Figure 6b

Example of Mini-schedule

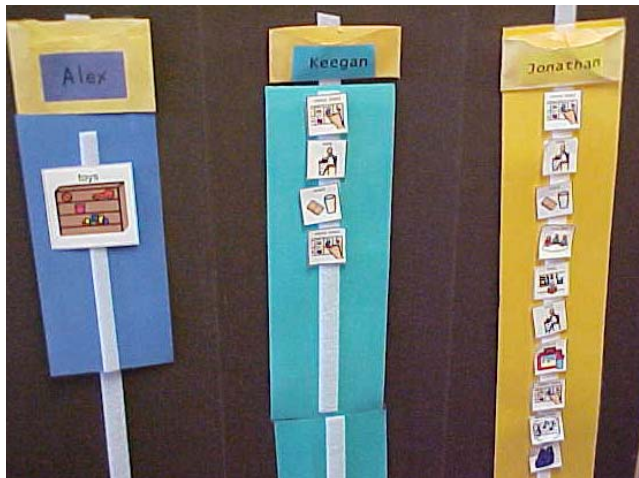


“Academic Task” mini-schedule

Figure 7 shows two examples of schedules in picture form. These types of visual supports are another effective way for the student to organize the day’s activities.

Figure 7

Examples of Visual Schedules



Schedules may include one activity, part-day, or full-day



Schedule on a ring, easily carried by adult or student

Choice boards and menus are a set of pictures or words that visually communicate to the student with an ASD what materials, rewards or tasks are available to choose. Choice boards can be effectively utilized to present a menu of leisure activities, work or tasks, restaurant or food selection, work areas, places to visit, songs to sing, or any other activity that may be a part of the student’s life or education. Using a choice board is a method to help eliminate frustration caused by being unable to communicate a request and to help motivate a student by allowing her/him the power to choose which task or activity in which to participate. Figure 8 provides an example of a free play choice board.

Figure 8

Example of a Free Play Choice Board



Other visual organizational methods may include organizing and labeling materials in the classroom or in the student’s locker or book bag. Providing cue cards for rules, and checklists for tasks, homework or learning materials can be helpful as well.

Summary Box: Structure the Environment
<ul style="list-style-type: none">• The environment is set up with clear physical and visual boundaries, which allow the child to understand where different activities take place and where materials are kept.
<ul style="list-style-type: none">• Visual and auditory distractions, such as bright lights and loud noises, have been considered and minimized.
<ul style="list-style-type: none">• Instruction and materials are visually organized to allow the students to know what is expected and to increase independence.
<ul style="list-style-type: none">• Examples of visual organization include the use of schedules and posted rules.
<ul style="list-style-type: none">• A predictable routine with a schedule is used.

Component 5: Effective Teaching Strategies

In addition to the use of structure, visual supports and routine, programs that result in educational progress for students with autism spectrum disorders also utilize motivational strategies and teach skills in a highly structured method either in a one-to-one or small group format, with minimal distraction, attention to specific details of the skill, and a focus on consistency, repetition, and predictability relative to the individual needs of the child. This section addresses such strategies and provides practical, low-tech suggestions for teaching students with ASD.

When choosing an intervention or teaching strategy, remember that no single approach is likely to be right for every child; rather, teachers may need to utilize a wide variety of teaching strategies for their students with ASD. Further, strategies may need to be modified to fit the developmental level and educational placement of the student. As each student is an individual, it is essential that teachers adapt teaching strategies to meet the student’s individual interests, strengths, and needs. The intervention methods chosen should also allow the student to demonstrate progress toward his/her IFSP outcomes or IEP goals.

Motivation and Reinforcement

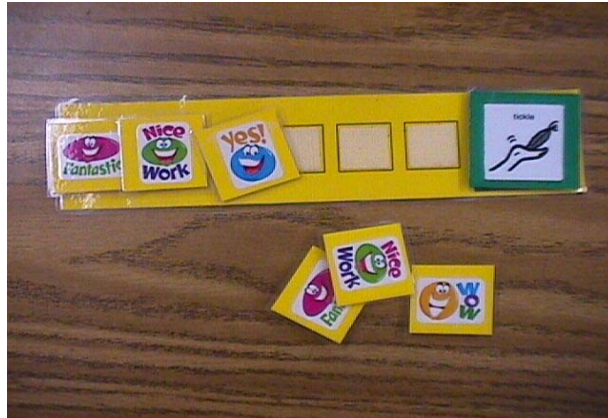
For the student with an ASD, verbal directions and unfamiliar materials often cause confusion that results in frustration and failure. As a result, many students with autism spectrum disorders become resistant to learning new skills. Therefore, it is necessary to identify and use reinforcement and teaching strategies that help motivate the student to learn. Reinforcement is more than just a reward; it is a powerful teaching tool. Reinforcement involves delivering a specific consequence when the student demonstrates a target behavior to increase the likelihood that the behavior will occur again when requested (Henry and Smith Myles, 2007). A reinforcer may be positive (giving a reward) or negative (taking away a privilege). Individual reinforcers can be identified through observation of the child's free time preferences, asking the child or parent directly, and by presenting choices. Some potential reinforcers may include:

- Social/Activity:
 - Take a break
 - Play a game
 - Use the computer
 - Spend time with a preferred person
 - Earn five minutes towards preferred activity or time with friend
- Tangible/Edible:
 - Healthy snack or beverage
 - Small toy
 - Bubbles
 - Baseball/trading cards
 - Certificates, badges, ribbons
 - CD, videogames
- Token System: A token economy is a system in which an individual earns tokens for targeted behaviors. Once the student has collected a predetermined number of tokens he can trade them for an item or activity that he desires. Examples of tokens include:
 - Points
 - Play money
 - Gold stars
 - Stickers
 - Tickets, coupons
 - Poker chips

Figure 9 is an example of simple token system. In this example, the student needs to make six correct responses before the student may receive the reinforcement.

Figure 9

Example Token System



Many students with autism spectrum disorders have a limited repertoire of interests. Utilize these natural interests to capture the students' attention, to teach them in a meaningful way, and as a reward for completed work. For example, if the student has an interest in computers, find an interesting way to use computers to teach new skills, or use the computer as a reward for task completion of a non-preferred activity.

Additional motivational strategies may include providing choices, changing the way in which instructions are given, modifying the appearance or presentation of a task, changing the length of a task, or adjusting the pacing of your instructional presentation.

In developing a reinforcement system, an important consideration is the schedule of reinforcement used. When teaching new skills or attempting to replace a challenging behavior, reinforcement should be delivered in a one to one system. In other words, every time the student performs a skill, they should be rewarded for the behavior. After the student has demonstrated acquisition of the new skill, the level of reinforcement can be faded (eliminated) over time.

General Teaching Strategies

When the student does not have a skill in his repertoire or does not demonstrate a skill often enough to provide evidence of mastery, it is important to remember that a wide range of teaching strategies may be used to meet an individual child's needs.

Discrete Trial is a structured teaching strategy, used to teach tasks or lessons that have been broken down into their simplest teachable components. It consists of four components: the instruction, the child's response, a consequence, and a brief pause.

Pivotal Response Training utilizes the discrete trial paradigm in lessons that are child directed. It also encourages teachers to create lesson plans and to work within the student's preferred activities.

Shaping, which is the reinforcement of successive approximations of the target behavior, is helpful when the student does not initially have the desired skill in her repertoire.

Prompting provides students with extra help to achieve the desired response. Strategies may include verbal prompts, modeling, physical or gesture prompts, and the use of positional cues. Prompts can be used at the same time as instruction, during the student's response to help decrease errors, or after the student's incorrect response to demonstrate the correct answer. Although prompting strategies can be helpful in teaching new skills, it is essential to fade these prompts over time in order to avoid the child becoming dependent on the prompt.

Once new skills are acquired, it is important to gradually fade the high levels of support and begin the generalization of the behavior and skill to other natural environments (home and community) and daily routines.

Academic Strategies

Most students with autism spectrum disorders require some sort of academic modifications. Modifications are diverse and range from altering the way in which materials are presented to modifying how children indicate competence of academic concepts. Graphic organizers, handwriting modifications, and priming, as well as assignment and test taking alternatives are useful strategies to consider for students with autism spectrum disorders.

Graphic organizers, such as semantic maps, Venn diagrams, outlines, and charts help children with autism spectrum disorders organize and visually represent important concepts.

Handwriting modifications, for children with fine motor difficulties, may involve responding orally, keyboarding, answering questions in true/false format, transcribing into tape or digital format, or using a scribe.

Priming refers to the process of preparing the student for an activity in advance of its completion. Previewing an upcoming activity helps to decrease the stress associated with change and the unknown. Some examples of priming may include reviewing an upcoming worksheet or activity; or going over an outline of what will be covered in the next section of a class, the next day, or in the next hour. Priming typically occurs close to the activity and can occur at home or in school.

Assignment and test taking modifications should match each student's specific need. Some examples of modifications include: additional time, advanced practice/priming, having the assignment /test read aloud, reduced number of items, a sample problem example, multiple choice versus essay format, keyboard versus handwritten.

Again, it is the individual needs of the child that will determine the academic strategies used.

Communication Strategies

The communication abilities of students with autism spectrum disorders vary greatly, from students who are pre- or nonverbal to students with amazing expressive vocabularies, and from students who have very limited receptive abilities to those who can understand complex conversations and instructions.

For preverbal and nonverbal students with autism spectrum disorders, a communication program may focus on teaching the student to communicate through gestures, speech and/or an

augmentative or alternative communication system. Alternative and augmentative communication systems such as sign language, visual symbol systems, communication boards, and voice output devices can provide an effective format for allowing students to communicate their wants and needs in any setting. Augmentative and alternative communication are most effective when implemented early to ensure a method of reciprocal interaction and a system for teaching functional communication skills such as making requests, asking for help, protesting, and making choices. Early systems should be very functional and concrete. A typical progression for a visual-symbol communication system might be to move from a concrete to more abstract system. For example, starting with objects or actual photographs, moving next to colored photos and line drawings, and finally to printed words.

Whether teaching a student to communicate through gestures, speech, or an augmentative or alternative communication system, new skills should generally be introduced in quiet, non-distracting environments, with generalization occurring in more natural contexts where natural cues and reinforcements are available to make the skills meaningful and spontaneous. Utilize student interests to help motivate the child to initiate and use the communication system. For example, if a student has a favorite toy or book, the teacher may keep the material just out of reach but within visual sight of the student; thus, encouraging the student to request the wanted item using the communication system. All communicative attempts and initiations should be praised and encouraged.

In contrast to the pre- or nonverbal student, many students with ASD are able to utilize complex language. However, these students, along with their nonverbal peers, often demonstrate a significant impairment in pragmatic (practical) language. For example, students with autism spectrum disorder often struggle with such skills as having a social conversation; perceiving, understanding and using gestures, facial expressions, and body language; initiating, maintaining and closing conversations; as well as understanding and using social conventions and rituals. Pragmatic communication skills are an important component of the student's educational program effectively taught through direct instruction as well as through social skill instruction (See the section on *Social Development Strategies* below for specific instructional strategies). In addition to difficulty with pragmatic language, students with ASD also have difficulty understanding and comprehending complex language.

When working with any student with an ASD, a verbal or nonverbal student, it is important not to assume understanding. Teachers must closely monitor the student for receptive comprehension. Talk slowly and carefully. Some students will require simplified one or two-step directions, while others will require extra time to process spoken language. Clearly state instructions and directions indicating what the student is expected to do rather than telling the student what not to do. Additionally, use proximity, gestures, and visual supports to help enhance and clarify the spoken message.

While the content of language and communication instruction is similar for all children, the problems and strategies may differ. Work with the speech language pathologist to develop a comprehensive communication program.

Social Development Strategies

Most students with autism spectrum disorders want to have friends, fit in, and be an active member of the social world. However, they have difficulty reading, understanding, and responding to social cues. Social skills, such as having a social conversation; perceiving, understanding and using gestures, facial expressions, and body language; initiating, maintaining and closing conversations; as well as understanding and using social conventions and rituals, are difficult for students with ASD. Because of this deficit in social understanding, students with autism spectrum disorders may say or do things that irritate and offend other people.

Fortunately, a variety of approaches have been demonstrated to successfully teach students with ASD to understand and succeed in their social world.

Helping students with autism spectrum disorders to develop social understanding requires both systematic instruction as well as opportunities to practice the skills within naturally occurring routines. Rules, social stories, role-playing and scripts, cue cards and checklists, coaching, modeling, and friendship groups are all effective strategies for systematically teaching social skills.

Many classroom teachers find it helpful to teach and post the classroom social rules to help students understand the expectations of the classroom or other social situation. In writing rules, be sure to provide concrete, positively stated rules that are easy for the student to see and understand. Be sure to include a statement regarding why the rule is important. For example, “we use an inside voice so that students can finish their work.” Including why a rule is important provides the social link that children with autism spectrum disorders often fail to make on their own. Review the rules on a regular basis and reward the child with positive contingencies for following the appropriate social rules. In addition to posting and reinforcing social rules, it is important to provide instruction around social situations that confuse the student.

Social stories, originally developed by Carol Gray, use visual instructional materials in the form of a short story to describe social situations that may be confusing for the student. The goal of any social story is to share information at the student’s developmental level regarding what is occurring in a given situation and why. Once written, the social story is read to or by the student to teach the new social skill, and then later to cue the student to practice the new skill. The team should develop a schedule to introduce and review the story. Gradually, the student will no longer need the social story.

In addition to social stories, scripting and role-playing are also effective strategies for teaching new social skills. Before introducing a student to a new social situation, it is often helpful to provide the child/student with a script of what to say and then role-play the situation. For example, a teacher may write a script teaching a student how to ask other children to play with him/her. The teacher and student might then role-play the scenario practicing how to respond to a variety of different outcomes. With practice this will become more natural for the student.

Once a student has begun to demonstrate success with social skills in a structured setting, it is essential to practice the skills within naturally occurring routines. Social skills and friendship groups provide a context for students to both learn and practice social skills in a supportive and structured environment. Additionally, many teachers find it helpful to assign a peer mentor or friend to help the student with an autism spectrum disorder practice and use social skills in the

natural environment. Whether through groups, peer mentors or other systems, it is important to create opportunities for the student to successfully practice newfound social skills with peers and with other adults both in and out of the classroom.

Depending on training and background, a variety of professionals may have knowledge in teaching social development. Talk with the speech language pathologist, school counselor or psychologist, and special education teacher for suggestions on strategies to include social development in the child's IEP depending on the individual needs of the child.

Behavior Strategies

Challenging behaviors, such as self-injurious behavior, stereotypic behavior, physical aggression, tantrums, defiance, and property destruction, are among the most difficult and stressful issues faced by parents and educators of children with ASD. Fortunately, a long line of research, stretching over four decades, has supported the use of functional behavior assessments (FBA) or functional analysis and positive behavior supports (PBS) in the treatment of challenging behaviors for children with ASD (Iwata & Worsdell, 2005). To learn more about FBA and PBS, please refer to *Component 6: Applying Functional Behavior Assessment to Challenging Behavior*.

Other Considerations

In addition to the previously mentioned teaching strategies, a number of individual treatment methodologies have been and continue to be developed for students with autism spectrum disorders. For a description of some of the most cited treatment methodologies, refer to the *Interventions* section of this manual. Before choosing a teaching method or specific intervention strategy, Heflin and Simpson (1998) suggest that the IFSP or IEP team consider the following questions:

- Is the treatment evidenced-based and published in peer-reviewed journals?
- Does the information regarding effectiveness come from a variety of sources?
- Are the studies validating effectiveness of high quality?
- Is empirical validation available, or does the majority of the support come from personal testimonials?
- Do the proponents claim that the option will help almost everyone with autism?
- How does this treatment rate in terms of restrictiveness and intensity?
- Are there less restrictive/intensive alternatives that may be just as effective?
- Are there options that are better researched than this one?
- Does the treatment ignore the functional communication and socialization needs of the child?

Summary Box: Effective Instructional Methods
<ul style="list-style-type: none">• Parents and education staff work together to identify appropriate intervention methods.
<ul style="list-style-type: none">• Intervention methods are consistent across environments (i.e. home, school, community).

<ul style="list-style-type: none"> • Intervention methods, tools, and materials are supported by research and address the areas of strength and needs of the student.
<ul style="list-style-type: none"> • Intervention methods allow the child to demonstrate progress toward her IFSP/IEP goals.
<ul style="list-style-type: none"> • New skills are taught are developmentally appropriate and meet the child's individual needs.
<ul style="list-style-type: none"> • Once new skills are acquired, these are practiced in all natural environments (home, school, community).

Component 6: Applying Functional Behavior Assessment to Challenging Behavior

As mentioned before behaviors, such as self-injurious behavior, stereotypic behavior, physical aggression, tantrums, and property destruction, are difficult and stressful for parents and educators of children with ASD. Research supports the use of functional behavior assessments (FBA) or functional analysis and positive behavior supports (PBS) in the treatment of challenging behaviors for children with ASD (Iwata & Worsdell, 2005).

Functional behavior assessments are found by research to reduce maladaptive skills while enhancing adaptive ones. This is because seventy to eighty percent of challenging behaviors have a communicative function (Koegel, Koegel, and Brookman, 2005). In addition, challenging behaviors may satisfy a sensory need for the child. For example, a child with ASD may learn that when he bangs his head a caregiver attempts to soothe him by providing a favorite toy or allowing him to escape an adverse situation. For a child with poor communication skills, head-banging then becomes a functional way to meet her/his needs. Functional analysis allows a person to understand what function a child's problem behavior serves and then teach appropriate skills, through the use of PBS, to meet this need.

A formal approach to the FBA process typically involves at least three steps using an assessment process. The basic steps are:

- 1) Identifying the challenging behavior;
- 2) Identifying antecedents (events before the behavior occurred), consequences of the behavior and setting events which maintain the problem behavior; and
- 3) Designing an intervention, based on the conclusions of the assessment, which may alter the identified antecedents, consequences or setting events.

In a review of the literature, Horner and colleagues (2002) reported, "The more precise the assessment, the more likely the intervention will result in intervention success" (p. 429). Below are some questions that may help make the functional behavior assessment more precise.

Functional Behavior Assessment

Step 1: Identify the Challenging Behavior

1. Define the behavior of concern (be specific).
2. How often (frequency) does it occur? How long (duration) does it last?
3. How intense is it (on a scale of 1-10, compared to rating on a similar behavior)?
4. Do frequency, duration and intensity vary by incident, location or person?
5. When/where/with whom is the behavior *most likely* to occur?
6. When/where/with whom is this behavior *least likely* to occur?

7. What is the escalation pattern of the behavior?
8. Were there any prior attempts to change? What happened during these attempts?

Step 2: Identifying antecedents, consequences and setting events maintaining the problem behavior

Antecedents (before the behavior occurred)

1. Where were key participants before the behavior occurred? What were they doing, thinking, feeling and saying?
2. What were the expectations (of the child and teacher/parent) at the time of the behavior?
3. Is the behavior associated with a specific event (e.g. circle time, science, etc)?
4. Do environmental events appear to trigger or support this behavior?

- | | |
|------------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Lack of social attention | <input type="checkbox"/> Peer attention |
| <input type="checkbox"/> Demand/request | <input type="checkbox"/> Adult attention |
| <input type="checkbox"/> Difficult task | <input type="checkbox"/> Public praise |
| <input type="checkbox"/> Transition (task) | <input type="checkbox"/> Transition (setting) |
| <input type="checkbox"/> Behavior ignored | <input type="checkbox"/> Interruption in routine |
| <input type="checkbox"/> Warning reprimand | <input type="checkbox"/> Time out |
| <input type="checkbox"/> Negative social interaction | <input type="checkbox"/> Loss of privileges |
| <input type="checkbox"/> Negative consequences | <input type="checkbox"/> Unstructured activity |
| <input type="checkbox"/> Crowded setting | <input type="checkbox"/> Other _____ |

5. Can we create a setting in which the behavior is highly unlikely to occur?

Consequences (after the behavior occurred)

1. What did the student get (or have to do) or *not* get or (did not have to do)?
2. What did the student say they wanted and/or expected?
3. What did the student do, think, feel, and/or say?
4. What did the key participants do, think, feel, and/or say?
5. What did the student's friends or peers do, think, feel, and/or say?
6. If the student had done nothing, how do they think they would have felt?
7. Describe strategies or consequences that have helped and *not* helped decrease the behavior.

Setting Events (that may exaggerate the likelihood of challenging behaviors)

1. Note any significant medical information that may impact this behavior. List medications and possible side effects.
2. Was the child anxious, hungry, thirsty, angry, tired, sick, or in pain?

Hypothesis Testing (What function does this behavior serve for the child?)

To Escape

- To avoid a demand or request
- To avoid a task / activity
- To avoid a person
- To escape setting

Attention/Control

- To get desired item / activity
- To obtain attention
- To get help or make need known
- To get preferred adult

- | | |
|-----------------------------------------------------------|-------------------------------------------------------------------|
| <input type="checkbox"/> To reduce anxiety or nervousness | <input type="checkbox"/> To get sensory stimulation |
| <input type="checkbox"/> To escape sensory stimuli | <input type="checkbox"/> To increase/decrease sensory stimulation |
| <input type="checkbox"/> To reduce boredom | <input type="checkbox"/> To get feedback or approval |
| <input type="checkbox"/> To protest an unwanted event | <input type="checkbox"/> To gain predictability |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

Step 3: Identify an Intervention

Once the maintaining variables have been identified through the functional behavior assessment, an intervention is created by altering the identified antecedents, consequences or setting events. Effective interventions may include environmental modifications (e.g. visual supports to increase structure), curricular interventions (e.g. alternate setting for instruction), or instruction designed to match the student’s identified needs (e.g. social or communication skills). The intervention includes finding and teaching appropriate replacement behaviors to serve the same function as the negative behavior originally exhibited. These interventions are considered Positive Behavior Supports (PBS) because the focus is on teaching positive behaviors in an effort to reduce and replace negative ones.

According to Horner et al. (2002), early use of PBS systems can result in a reduction of eighty to ninety percent of challenging behaviors. These findings were also supported by a separate review of the PBS literature by the National Research Council (2001), who reported a success rate of ninety percent or greater reduction in problem behaviors from baseline. In addition to a reduction in problem behavior, increases in positive behaviors and improvement in life-style were also reported. Below is a sample PBS Plan.

Positive Behavior Support Plan

1. What is your hypothesis regarding the function of the problem behavior?
2. State the initial goal for behavior reduction.
3. List socially appropriate replacement behavior that will serve the same function as the undesirable behavior (be specific).
4. List reinforcers to be used.
5. List consequences to be used.
6. Describe the step by step intervention plan to be used when behavior occurs.
 - a.
 - b.
7. Describe safety risks and crisis management plan if needed.
8. Identify the method that will be used to document progress such as direct observation, notes, and frequency / duration data.
9. Specify people responsible for distributing, monitoring and implementing this plan.
10. Date for review:

Summary Box: Challenging Behavior
<ul style="list-style-type: none"> • Consideration is given to environmental modifications as well as to communication, social, academic, and motivational strategies that may help to prevent challenging behaviors.
<ul style="list-style-type: none"> • Functional behavior assessment is applied to challenging behavior, looking

for the communicative intent of the student’s behavior.
<ul style="list-style-type: none"> Based on the results of the functional behavior assessment, positive behavior supports are developed and implemented. The intervention may include finding and teaching appropriate replacement behaviors to serve the same communicative function as the originally exhibited negative behavior.
<ul style="list-style-type: none"> Positive behaviors are then reinforced.

Component 7: Assessment of the Intervention (Data Collection)

Prior to using any intervention, it is important to record a baseline of functioning in the particular area of need. That is, it is important to assess or determine how the child is currently functioning in the area(s) of need. Once the goals are established, data are recorded to monitor progress in the program designed to improve the target area. The data are analyzed to determine if a lesson or educational intervention is effective and what changes in the lesson or educational intervention may need to be made. The IFSP or IEP team must determine how often data will be recorded and the criterion for determining when a particular intervention is unsuccessful and must be abandoned. Ongoing assessment of the child’s skill via the data collection system can help determine the next set of goals.

Summary Box: Data Collection
<ul style="list-style-type: none"> Prior to intervention, baseline data on functioning level in the particular area of need is collected.
<ul style="list-style-type: none"> IFSP/IEP team determines how often and in what format data is recorded.
<ul style="list-style-type: none"> A criterion is set for determining when a particular intervention is unsuccessful.
<ul style="list-style-type: none"> Data are recorded to monitor progress in the program designed to improve the area of need.
<ul style="list-style-type: none"> Data are recorded to identify problems or lack of progress.
<ul style="list-style-type: none"> Ongoing assessment of the child’s skill via the data collection system determines the next set of goals (if appropriate).

Component 8: Transition

As discussed earlier, students with autism spectrum disorders often have difficulty with changes in the routine or the environment; this is especially true during unstructured periods, such as a planned or unplanned transitions. Consequently, students with ASD often need additional support and instruction in the skills that will allow the student to be as independent as possible during transitions, such as those occurring from:

- Activity to activity
- Home to school
- School to home
- One grade/school to the next grade/school
- School to post-school environments

When planning for a transition, it is important to prepare the student for upcoming changes. When transitioning from activity to activity, provide verbal and visual warnings before ending an

activity and use visual supports, such as schedules, to inform the student as to which activity will occur next. Transition objects, which provide a visual cue as to where the student is going, are often helpful for students transitioning from one activity to another. For example, a student may carry a spoon as a reminder they are going to lunch. When transitioning a student into a new grade, school, community, job or post-school environment, it is important to prepare the student for the upcoming change. Assess the new environment to determine what skills the student will need in order to be independent and successful and pre-teach those skills to the student. Talk with the student about the new environment, and if possible allow the student to visit the new environment. If a site-visit is not possible, consider videotaping, taking pictures, writing a social story, and compiling a list of expectations for the new environment. Additionally, meet with the staff members of the next setting to discuss the student's strengths and particular learning needs. Prepare the staff in the new setting by providing them with information on autism spectrum disorders, arrange to have them visit or learn about the student's current placement, and if possible arrange a meeting between the student and the new staff. In these ways, when typical and major life transitions are systematically addressed and planned for, students with ASD are more likely to experience success, have confidence, and be more independent, creating a positive experience for everyone involved.

Summary Box: Transition Planning

- Skills are taught and support given to allow the student to be as independent as possible during transitions, such as those occurring from:
 - Activity to activity
 - Home to school and school to home
 - One grade/school to the next grade/school
 - School to post-school environments

Component 9: Opportunities with Peers

Students with autism spectrum disorders have significant difficulty in social and communicative interactions with others. Consequently, it is important for students with ASD to have regular and planned interactions with same-age peers who have a variety of abilities and skills. Through same-age peers with and without disabilities, students with ASD may observe more appropriate models for social behavior, receive social feedback from peers, and engage in more appropriate social experiences than they would in the company of peers with ASD alone. However, it is important to recognize that merely placing a student with an autism spectrum disorder in the same place as same-age peers does not ensure acquisition of social and communication skills. According to Wagner (1999), the most effective methods for helping students with ASD gain essential social and communicative skills include:

- Play or recreational activities that have been appropriately structured
- Peers receive training
- Teachers actively prompt and reward interactions between the student with an autism spectrum disorder and peers

Summary Box: Planned Peer Interactions

- Structured activities with one peer or in small groups are provided to practice newly learned social, academic, communication, coping and self-help skills.
- Opportunities are provided for interaction with peers who have different abilities and skills, which allows for generalization of mastered social, academic, communication, coping and self-help skills.
- Student is given support and opportunities to develop friendships with peers in order to initiate and practice social interaction.
- Peers are provided with a time and environment where they are comfortable to ask questions and receive age appropriate information about autism spectrum disorders.
- Parents are encouraged to meet the staff and share information about their child.
- Resources, such as videos, books and pamphlets, on ASD are available for staff, students, and families.
- Support for the staff is provided as they learn to include the student into activities.

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Interventions

The evaluation or analysis of the existing research in the literature relating to assessment and the development of educational programs based on that analysis is confusing and difficult at best. The federal Office of Special Education Programs (OSEP) Research to Practice Division recently funded the National Academy of Sciences to study educational interventions for children with autism. Their findings are documented in a report, *Educating Children with Autism*. This document is a valuable resource that will enhance understanding and facilitate informed decision-making with respect to assessment and intervention for children with autism.

The following interventions are presented as information on the most often cited interventions. Inclusion of information in this manual should not be construed as an endorsement of the intervention. Where available, information regarding research efficacy is included.

Comprehensive Treatment Programs

DISCRETE TRAIL (DT)/ INTENSIVE BEHAVIOR INTERVENTION (IBI)/ APPLIED BEHAVIOR ANALYSIS (ABA) Beginning in 1963, Dr. Ivar Lovaas, of the University of California at Los Angeles (UCLA), and his colleagues applied behavioral techniques to children with autism. The Lovaas treatment methodology has evolved over the years. Although, initially practiced only in clinic settings, the methods refined by Lovaas are currently practiced in clinics, homes, and school settings.

The objectives of this treatment are twofold: teach the child to want to learn and help the child to understand that learning is possible. The methodology calls for one-on-one treatment model which entails breaking down a skill goal into small, sequenced steps. Each part of a skill must be mastered before the next part is presented. Prompts and reinforcements (both positive and negative) are used to achieve desired behavior. The underlying philosophy is that behavior changes slowly and in small increments.

Research has demonstrated this intervention to be most successful when provided in an intensive one-on-one format by trained individuals, which may include family members, professionals, paraprofessionals, volunteers, or college and high school students. Appropriate training in the theory and methodology of applied behavior analysis is especially critical to the success of the student's program.

FLOOR TIME--DIR (Developmental Individual-Differences, Relationship Based) Model is a developmental approach developed by Dr. Stanley Greenspan. A child psychologist, Dr. Greenspan, has been involved in clinical practice with children with special needs and their families for several decades in the Washington, D.C., area. His method calls for focusing on each child's current level of functioning and individual nervous system rather than grouping children under similar disability labels like autism and providing one treatment option for that disability.

The term "Floor Time" refers to the typical area used to foster a child's development - the floor.

The philosophy of treatment emphasizes creating emotional attachments between adult and child.

The comprehensive treatment program involves interactive intervention time spent with a child in both the home and school settings where the parents or professionals channel activities to emphasize three types of experiences: Floor Time where the child leads one to an activity of choice which gradually becomes interactive, Semi-Structured Play where one interacts with the child to create highly motivating situations in which to engage in problem solving, and Motor, Sensory Spatial Play where the child is involved in physical activities such as running, jumping, spinning, etc.

TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) was started in the 1970s by Dr. Eric Schopler at the University of North Carolina at Chapel Hill, School of Medicine.

The program recognizes the need for educational supports from early childhood through adulthood. It requires teacher training and follow-up training as well as collaboration with parents and co-therapists.

The philosophy of TEACCH is to focus on the child with autism and to design a program around the child's interests, skills, and needs. It promotes a broad-based intervention approach, which includes extensive evaluation to determine the starting point for educational programming. The child's educational goals and strategies to address these goals continue to evolve over a child's lifetime based on individual assessment and measured progress.

The teaching strategies are implemented in highly structured, modified physical environments using individualized curriculum.

Individualized Treatments

Communication

The communication abilities of children with ASD vary tremendously, from non-verbal children to those with an extensive expressive vocabulary, and from children with limited receptive abilities to those who can understand complex conversations. The DSM-IV-TR lists four symptoms under the category of communication, including: 1) a delay in, or total lack of, the development of spoken language; 2) for individuals with adequate speech, a marked impairment in the ability to initiate or sustain conversations with others; 3) stereotyped and repetitive use of language or idiosyncratic language; and 4) lack of varied, spontaneous make-believe play (American Psychiatric Association, 2000, p. 75). From this description, it is clear the language and communicative abilities of children with ASD is markedly diverse. Yet, the level of communicative competence attained by children with ASD has been identified as an important predictor of long-term outcome (Stone and Yoder, 2001). In fact, the presence of fluent speech prior to age five is a critical predictor of IQ scores, language measures, adaptive skills, and academic achievement in adolescence (National Research Council, 2001, p. 47). Thus, the importance of early intervention in communication skills cannot be understated. However, like

much of the field of ASD, the intervention approaches for enhancing communication skills vary tremendously and range from traditional, discrete trial approaches to more contemporary behavior approaches using naturalistic language techniques to developmentally-based approaches and augmentative and alternative communication strategies.

Discrete Trial. The earliest research efforts at teaching speech and language to children with ASD used massed discrete trial methods, which were designed to enhance verbal skills by teaching simple vocabulary and sentences through highly structured direct teaching sessions (Delprato, 2001; National Research Council, 2001). While these strategies led to improvements in IQ scores and language skills, children taught with the discrete trial methods often failed to exhibit or generalize their language skills in other environments (Goldstein, 2002). Consequently, interventions designed to teach speech and language skills have increasingly moved toward naturalistic intervention techniques.

Naturalistic Behavior Interventions. There is now a large body of empirical support for contemporary behavioral approaches using naturalistic behavior interventions to effectively teach speech, language and communication skills to children with ASD. These approaches include incidental teaching, time delay, milieu interventions, and pivotal response training (Delprato, 2001; Goldstein, 2002). These methods use systematic teaching trials that occur in natural activities and contexts, such as play, to enhance spontaneity and generalization. In general, they tend to share several common elements. For example, naturalistic behavior interventions are child centered, with a focus on the child's interests and the initiation for communication coming from the child; they are embedded within the child's natural environment, such as during play settings; and they use naturally occurring reinforcers, such as a favored toy requested by the child (National Research Council, 2001, p. 53). In a review of the literature, Goldstein (2002) examined 12 studies that investigated naturalistic behavior interventions. In each of the 12 studies, the language skills of children with ASD were significantly enhanced and a variety of communicative functions were taught, including eye contact, joint attention, and motor imitation; spontaneous productions of social and descriptive language; positive interactions with peers; and increased language production (p. 387-388). Taken together, these studies suggest naturalistic behavior interventions are an effective strategy for teaching a variety of communication skills. Given the success of both naturalistic and discrete trial behavior interventions, direct comparison studies were needed to compare the efficacy of the two interventions.

Developmental Approaches. In addition to behavioral techniques, there are numerous intervention approaches based on a developmental framework, such as the **SCERTS** (Supports, Communication, Emotional Regulation, Transitional Support) model developed by Prizant and Wetherby and the **Floor Time/DIR model** developed by Greenspan and Wieder. According to the National Research Council (2001), developmental approaches share a number of commonalities. First, the environment is arranged to provide opportunities for the child to initiate communication, for example, interesting toys are placed just out of the child's reach. Second, the teacher follows the child's lead by responding to all of the child's communicative attempts, which may include such actions as speech, body gestures, or hand leading. Third, emotional expressions and affect sharing are emphasized by the teacher. To this end, the teacher may use simplified language to focus on the child's emotion, for example "you're happy".

While the developmental approach shares a number of similarities with naturalistic behavior interventions, Ingersoll, Dvortcsak, Whalen and Sikora (2005) argue there are important differences. For example, they state naturalistic behavior interventions target specific communication forms, such as two-word phrases, while developmental approaches focus on increasing social interactions and general communication ability. While it is true behavior interventions may target specific communication skills, they are also frequently used to enhance social interactions and general communicative abilities (Yoder and Stone, 2006). Ultimately, the IEP goals will target those skills necessary to enhance the child's communication. A variety of strategies, including developmental and/or naturalistic approaches, may be used to support the child in meeting his communication goals.

Augmentative and Alternative Communication (AAC)

While there is empirical evidence to support the systematic teaching of speech using the naturalistic behavior approach, and early support for the use of developmental strategies, twenty to forty percent of children fail to make meaningful gains in speech (National Research Council, 2001). For these children, AAC is often an appropriate intervention to temporarily or even permanently compensate for the communication impairment. A number of AAC strategies have been studied for children with ASD, including sign language and Picture Exchange Communication System (PECS). Both sign language and PECS have research to support their use. (National Research Council, 2001).

Sign Language has a strong research base for children with ASD. According to Goldstein (1999), there have been numerous experimental studies of the efficacy of teaching sign language to children with autism (as cited in National Research Council, 2001). These studies suggest that sign language combined with speech training results in faster and more complete receptive and expressive vocabulary acquisition than speech training alone. While, signing may support some children in learning to speak and provide others with a basic form of communication, the National Research Council cautions that "it is very rare to find a child with autism who learns to sign fluently and flexibly" (p. 58). In addition to sign language, visual symbol systems, such as PECS, have also received attention.

PECS (Picture Exchange Communication System), developed by Dr. Andrew Bondy and Lori Frost, is a pictorial system that utilizes basic behavior principles and techniques, such as a discrete trial teaching format, as well as shaping and differential reinforcement.

The goal of the PECS is to have the child spontaneously initiate a communicative interaction. The underlying philosophy is that a reason for communication must precede actual speech production. The method begins with identifying potential reinforcers (items the child likes and wants). Training begins with physically assisted exchanges of pictures for actual items and continues through a total of six phases. These are meant to lead to desired results in the final stages where a child will use simple sentence structure to make a spontaneous request (phase 4); respond to the question "what do you want?" (phase 5) and responding to other simple questions, such as "what do you see?" with an appropriate comment, such as "I see a bird" (phase 6).

The originators of PECS stress that professionals should go through training in the PECS program to appropriately use the communication strategy and that aspects of behavioral analysis and behavioral teaching techniques are used in conjunction with PECS.

PECS has become increasingly popular with practitioners and research has supported its effectiveness in enhancing the communication skills of children with ASD (Ganz & Simpson, 2004), as well as emergence of speech in play and academic settings, and the number and complexity of words used including appropriate grammar (Charlop-Christy, Carpenter, Loc Le, LeBlanc, & Kellet, 2002).

Social Interventions

Social difficulties are among the hallmark symptoms of ASD. Children with ASD often have significant delays in the use of nonverbal behaviors, such as the ability to read and use gestures and facial expressions. Further, children with ASD often struggle to understand social norms and unwritten social rules. These deficits often separate them from their peers and make developing friendships with same-age children difficult. Deficits in the ability to show social and emotional reciprocity and to share achievements and enjoyments with others further limit the child with ASD's ability to connect on an emotional level with others. Given the severity of these social deficits, many consider it to be the most defining and handicapping feature of the disability (Rogers, 2000). Fortunately, children with ASD have been found to be responsive to a wide variety of social interventions aimed at decreasing inappropriate social behaviors, while also increasing social engagement with others. By increasing social skills, some researchers have even demonstrated a concurrent increase in related skills, such as enhanced communication (Taylor, Levin, and Jasper, 1999). Thus, a number of adult, child and peer interventions have been developed and empirically studied, including Social Stories, Video Modeling, Peer Mediated strategies, Theory of Mind, and Social Skills Groups.

Social Stories, developed by Carol Gray, are an increasingly popular strategy for improving the social skills of children with ASD. A Social Story is an individualized short-story designed to help the child with ASD understand the social context and expectations of a variety of situations. The methodology of Social Stories is founded on the belief that understanding social rules is an essential part of learning an appropriate social behavioral response. The objective is to teach understanding rather than compliance. The stories are usually written by parents or professionals involved with the child who are able to write stories to teach specific social situations of concern to an individual child.

Social Stories use a simplified story formula to develop a story specific to an individual's social needs. The formula for writing the stories calls for clearly defining the social situation which is a problem for the student, identifying social cues which give perspective to the situation, and providing a directive for an appropriate response. The resulting story is to be read to or by the person with autism enough in advance to allow for multiple readings before the situation is to occur.

Sansoti, Powell-Smith, and Kincaid (2004) noted there was research support for the efficacy of Social Stories, for children ages five to 12, in reducing behaviors, such as tantrums, as well as increasing appropriate social behaviors, such as time spent on task and appropriate hand-

washing. However, according to Sansoti et al., it was difficult to determine whether Social Stories alone were responsible for the gains as more research is needed with better experimental controls to determine if the original results can be replicated.

Video Modeling utilizes video-taped segments of children, adults or cartoons performing appropriate social-behaviors in an attempt to improve these same behaviors in children with ASD. Early research in video modeling, outside the ASD arena, has demonstrated that the most effective models tend to be individuals close to the observer's age, with similar demographic characteristics, who function at a slightly higher social level than the observer (Buggey, 2005).

A number of ASD researchers have begun to build on these early video modeling studies with promising results through computer programs, video-self modeling and modeling of others (Ayers and Langone, 2005).

Computer-Based Video Modeling uses a computer-based program to teach children with ASD an array of social skills, such as turn-taking and following instruction. Early research has provided initial support for the strategy; however, more research is needed (Simpson, Langone and Ayres' as cited in Ayers and Langone, 2005).

Video Self Modeling (VSM) involves showing children positive performances of a target behavior and has demonstrated positive results with a number of behaviors, ages, and abilities (Buggey, 2005). The strategy typically involves showing children a video of a target behavior one time per day, usually prior to the situation in which the behavior is required. Children are then video-taped on the target behavior and then perform a self-evaluation of their behavior. Other strategies include, editing video tapes, such that children only see themselves correctly performing the target behavior and using Social Stories prior to video taping.

Researchers of VSM have reported significant gains in the specific target behaviors, as well as good generalization of the skill. Given these findings, VSM seems to be a promising intervention; however, caution is warranted given the lack of experimental controlled research.

Video Models of Others involves having children with ASD watch a video tape of other children performing a target behavior successfully. Children are then verbally praised for attending to the video before being asked to repeat the behavior. According to Ayers and Langone (2005), although gains were small, researchers reported a faster acquisition via video as compared to in-person models.

Peer-Mediated. Given the extensive time and equipment constraints of video-modeling, peer-mediated approaches may be an attractive low-tech alternative for some practitioners. In peer mediated approaches typical peers are taught to repeatedly initiate interactions with children on the autism spectrum. Specifically, typical peers are trained by adults to elicit, prompt and reinforce the social behavior of children with ASD. Research suggests it is important for these interactions to occur with same-age peers in a natural play setting (Paul, 2003). For example, a 1988 study by Dewey, Lord and Magill demonstrated that rule-governed and construction games appeared to facilitate "the most complex social interactions, were the most fun, and kept the children most involved with the interactions" (as cited in Roger, 2000).

Over 20 years of research by Strain and colleagues, as well as Lord and colleagues, has demonstrated the power of peer-mediated approaches to increase social interactions and purposeful play, as well as reduce atypical behaviors in both preschool and school-age children with ASD (Rogers, 2000; National Research Council, 2001). Further, maintenance and generalization of these skills to unfamiliar trained peers as well as to new environments has been successfully demonstrated as well (Rogers, 2000). While training and monitoring of peer partners can be complex, numerous publications have described the procedures (Paul, 2003); further, various manuals, such as the Buddy Skills Training Program (Goldstein and Wickstrom, 1986) and Danko, Lawry and Strain's 1998 manual (as cited in National Research Council, 2001) have been written to assist practitioners in its implementation.

Recent research into the area of peer-mediated interventions continues to support its use among children with ASD (DiSalvo and Oswald, 2002; Kalyva and Avramidis, 2005; Morrison, Garcia, and Parker, 2001). In fact, Kamps et al., (2002) demonstrated an increase in the frequency and length of social interactions of students with ASD over control groups, with maintenance of these effects lasting over a three year period. Interestingly, in a comparison of two peer-mediated programs, the authors noted a significantly greater improvement in the social skills of school-age children with ASD involved in a cooperative learning group over those involved in a social skills group. Kamps and colleagues hypothesized that the structure of the cooperative learning group over the free-play nature of the social-skills group may have contributed to the findings. The multi-component nature of the cooperative learning group, which also incorporated a social skills component, may have further contributed to its success. Given these findings, peer-mediated interventions appear to be a research supported intervention for enhancing social initiation and social interactions among preschool and school-age children with ASD.

Theory of Mind is an evolving psychological concept that describes the development of an individual's understanding of how other people think. Dr. Simon Baron-Cohen is one of the leading professionals associated with Theory of Mind as it relates to autism.

The Theory of Mind concept describes the ability to understand intentions, beliefs, desires, and emotions from another perspective. Dr. Cohen termed a significant deficit in this area as "mind blindness." Infants are born with what Dr. Cohen calls two core areas: Folk Psychology-understanding how **people** work and Folk Physics-understanding how **things** work. Each individual's cognitive style depends on how these two core areas develop. A significant deficit in folk psychology development can be found in individuals with autism.

Theory of Mind proposes "mind blindness" can be overcome by teaching the individual to "mind read." This teaching includes fostering the development and understanding of social behavior, communication, and imagination. The theory does not provide definitive methodology to accomplish this. Two of the most popular interventions lending itself to this teaching are those of Carol Gray's Social Stories and Michelle Garcia Winner's "I LAUGH" Social-Cognitive Interventions.

Social Skills Groups are a broad category of interventions in which a small group of children with autism spectrum disorders are brought together on a regular basis to receive specific instruction in relevant social skills. Social skills groups vary in the frequency and duration of sessions, number and type of children involved, as well as the content of instruction. For

example, a school-based social skills group may occur on a daily basis, across the school year, and involve a group of three to four same age peers with related disabilities, but diverse social skills. Alternatively, an outpatient group may take place once a week for six to eight weeks with children of similar ages and skill levels (Barry, Klinger, Lee, Palmary, Gilmore, and Boding, 2003). Curriculum or teaching materials also tend to vary across skills groups. According to Williams White, Koenig, and Cahill (2007), who completed a review of the literature, group-based social skill training approaches appear to be a useful intervention for children with ASD; however, additional randomized controlled studies are needed.

Sensory Interventions

There are fewer empirical studies for sensory problems and interventions for children with ASD than for other aspects of development; however, the evidence converges to confirm the existence of sensory difficulties for many children with ASD (National Research Council, 2001). Unusual sensory-perceptual reactions, such as hyper or hypo-sensitivity to touch, taste, sound, and visual stimuli, often contribute to challenging behaviors. Unfortunately, there is little rigorous research on intervention techniques for the sensory symptoms children with ASD may display.

Sensory Integration (SI) was originally developed by Dr. Jean Ayres, an occupational therapist, who worked in California with children and adults with neurological disabilities. Since Dr. Ayres' death in the early 1990s, the approach has continued to be defined and refined by various individuals.

SI is the ability of an individual to organize sensations received by the body to move, learn, and behave normally. We learn through sensory systems, which include visual/sight, auditory/sound, olfactory/smell, gustatory/taste, tactile/touch and vestibular/inner ear movement, and gravity.

Assessment and intervention techniques were developed to assist parents and professionals in the remediation and accommodation of sensory system deficits. The area of SI is primarily a treatment used by occupational therapists but can be applied effectively with other disciplines such as speech-language therapy and in classroom learning situations. However, non-informed parents and professionals should not provide stimulation to sensory systems without consultation or advice from an informed professional. Initial studies have provided limited support for SI; and, additional well-controlled experimental studies are still needed.

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Additional Information

Possible Risk Factors for Considering Autism Screening

Risk Factors: Socialization

- Does not smile socially
- Seems to prefer to play alone
- Gets things for himself
- Is very independent
- Has poor eye contact
- Is in his own world
- Tunes us out
- Is not interested in other children

Social questions to ask if you suspect autism. Does he/she...

...cuddle like other children?

...look at you when you are talking or playing?

...smile in response to a smile from others?

...engage in reciprocal, back and forth play?

...play simple imitation games, such as pat-a-cake or peek a boo?

...show interest in other children?

Risk Factors: Communication

- Does not respond to name
- Cannot tell me what he or she wants
- Language is delayed
- Doesn't follow directions
- Appears deaf at times
- Does not point or wave bye-bye
- Used to say a few words, but now doesn't

Communication questions to ask if you suspect autism. Does he/she or is there....

...point with his finger?

...gesture? Nod yes and no?

...direct your attention by holding up objects for you to see?

...anything odd about his/her speech?

...show things to people?

...lead an adult by the hand?

...given inconsistent responses to name or commands?

...use rote, repetitive, or echolalic speech?

...memorize strings of words or scripts?

Risk Factors: Behavior

- Tantrums
- Is hyperactive/uncooperative or oppositional
- Does not know how to play with toys
- Gets stuck on things over and over
- Toe walks

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<<http://www.firstsigns.org/downloads/m-chat.PDF>>

SELECTED RESOURCES

Below is a selection of resources families, schools, and agencies may find helpful in meeting the educational needs of students with autism spectrum disorders. At the time of printing, all resource information was up-to-date. For current information, please contact the Autism Outreach Project.

The following resources are presented as information only. Inclusion of this information in this manual should not be construed as an endorsement of the resources.

Washington Specific Resources

Autism Spectrum Disorders

Autism Center

<http://depts.washington.edu/uwautism/>

Center on Human Development and Disability, Box 357920, University of Washington, Seattle, WA 98195

Phone: 206-221-6806, Fax: 206-543-5771, email: uwautism@u.washington.edu

The University of Washington Autism Center at the Center on Human Development and Disability (CHDD) provides intervention services, professional training, diagnostic evaluation, and program consultation for children with autism and related pervasive developmental disorders.

Autism Outreach Project

www.esd189.org/autism

NW ESD 189, 1601 R Avenue, Anacortes, WA 98221

Toll free: 1-888-704-9633, Fax: 360-299-4071

The Autism Outreach Project, an OSPI state needs project, provides information and technical assistance on autism spectrum disorders to Washington families, schools and agencies in order to improve the educational outcomes of students with autism spectrum disorders ages birth to 21.

Autism Society of Washington (ASW)

www.autismsocietyofwa.org

Phone: 888-279-4968, Fax: 206-407-3142, Email: info@autismsocietyofwa.org

ASW is the local state chapter of the Autism Society of America (ASA). ASW sponsors statewide chapter meetings, support groups, a statewide conference on autism, and provides links to resources and information.

Families for Effective Autism Treatment (FEAT) of Washington

www.featwa.org

P.O. Box 6159, Bellevue, WA 98007

Phone: 206-763-3373, Fax: 206-418-6584, email: featwa@featwa.org

FEAT is dedicated to assisting families in implementing behavioral programs. FEAT is a strong advocate for intensive early behavioral intervention rooted in the principles of applied behavior analysis. FEAT of Washington has a family resource guide for the greater Seattle area.

Education & Early Intervention

Department of Health and Social Services (DSHS)/Infant Toddler Early Intervention Program (ITEIP)

www.dshs.wa.gov/iteip

P.O. Box 45201, Olympia, WA 98504

Phone: 360-725-3500, TTY: 360-407-1087, Fax: 360-725-3523, email: loercSK@dshs.wa.gov

ITEIP directs the coordination of the statewide system of early intervention services for families with children age birth to three that have developmental delays. There are links to services, interagency coordinating councils, baby development chart, and resources.

Office of Superintendent of Public Instruction (OSPI)

www.k12.wa.us

www.k12.wa.us/specialed/ (special education)

Old Capitol Building, P.O. Box 47200, Olympia, WA 98504-7200

Phone: 360-725-6075, TTY: 360-586-0126, Fax: 360-586-0247

The Office of Superintendent of Public Instruction administers the state education system.

Family Support

The ARC of Washington State

www.arcwa.com

2638 State Avenue NE, Olympia, WA 98506

Toll free: 888-754-8798, Phone: 360-357-5596, Fax: 360-357-3279

The ARC of Washington State promotes the education, health, self-sufficiency, self-advocacy, inclusion, and choices of individuals with developmental disabilities and their families.

Department of Social and Health Services (DSHS)

<http://www1.dshs.wa.gov/>

DSHS Constituent Services, P.O. Box 45130, Olympia, WA 98504-5130

Toll free: 800-737-0617, Phone 360-902-7878, Fax: 360-902-7855

DSHS is a family of programs and services to help children, families, individuals with specialized needs, and individuals needing long term care. DSHS programs include Division of Developmental Disabilities (DDD), the Infant Toddler Early Intervention Program (ITEIP), and Division of Vocational Rehabilitation (DVR).

DSHS/Division of Developmental Disabilities (DDD)

P.O. Box 45310, Olympia, WA 98504-5310

Phone: 360-725-3413, TTY: 360-902-8455, Fax: 360-407-0955, email:

dddcareception@dshs.wa.gov

The Division of Developmental Disabilities (DDD) assists individuals with developmental disabilities and their families to obtain services and supports based on individual preference, capabilities and needs, and which promote everyday activities, routines, and relationships

common to those who receive services. This link will provide information on eligibility criteria, services, contacts, rules, and newsletters.

The Father's Network

www.fathersnetwork.org

16120 NE 8th St., Bellevue, WA 98008-3937

Phone: 425-653-4286, Fax: 425-747-1069, email: greg.schell@kinding.org

The Father's Network celebrates and supports fathers and families raising children with special health care needs and developmental disabilities. Many links for families are located at this website.

Washington PAVE (Parents Are Vital in Education)

www.washingtonpave.org

6316 S. 12th St., Tacoma, WA 98465

Toll free: 1-888-5-PARENT, Phone: 253-565-2266, Fax: 253-566-8052, email:

wapave9@washingtonpave.com

PAVE supports individuals with disabilities and their families through training, information, referral, and support.

Transition to Work

Center for Change in Transition Services

www.seattleu.edu.ccts

P.O. Box 222000, Seattle, WA 98122

Phone: 206-296-6494, email: ccts@seattleu.edu

The Center for Change in Transition Services provides special education personnel, directors, students and their families with resources, information, and news regarding secondary special education and transition services.

Division of Vocational Rehabilitation (DVR)

<http://www1.dshs.wa.gov/dvr/index.htm>

Lacey DVR (Regional Headquarters) P.O. Box 45340, Olympia, WA 98504

Toll free/TTY: 1-800-637-5627, Phone/TTY: 360-725-3636, Fax: 360-438-8007

DVR is a statewide employment resource for businesses and people with disabilities. The mission of DVR is to enable individuals with disabilities to obtain and keep employment. This site provides links to supported employment, transition from school-to-work, and independent living.

National and State Internet Resources

Asperger's Syndrome

Online Asperger Syndrome and Support (OASIS)

www.udel.edu/bkirby/asperger

OASIS provides information and support on Asperger's Syndrome.

Tony Attwood

<http://www.tonyattwood.com.au>

This web site contains resources and information on Asperger's Syndrome.

Autism Spectrum Disorders National Guidelines and Publications

Iowa

<http://www.medicine.uiowa.edu/autismservices/bestpractices/index.htm>

The Regional Autism Services Program at the University of Iowa has created guidelines for best practices in assessment and educational programming for students with autism.

National Academy of Sciences

<http://www.nap.edu/books/0309072697/html/>

The federal Office of Special Education Programs (OSEP), Research to Practice Division funded the National Academy of Sciences to study educational interventions for children with autism. The book, *Educating Children with Autism*, published by the National Academy press, is available at this website.

National Institute on Mental Health

<http://www.nimh.nih.gov/health/publications/autism/complete-publication.shtml>

The National Institute on Mental Health: Autism is an on-line autism publication, including a definition of autism spectrum disorders and information on national resources and supports.

Nebraska

<http://www.nde.state.ne.us/SPED/PDF/schsupport/asd.pdf>

Nebraska's web site features two documents on autism: *Special Education Verification and Effective Instructional Practices for Children with Autism Spectrum Disorders* and *Autism Verification Criteria*.

New York

<http://www.vesid.nysed.gov/specialed/autism/home.html>

New York has posted a number of resources on educating students with autism spectrum disorders, including a general brochure, Effective Practice Guidelines, and Autism Program Quality Indicators.

Ohio

http://www.ocali.org/family/fs_res_guide.php

Ohio Center for Autism and Low Incidence has published the *Ohio's Parent Guide to Autism Spectrum Disorders*, which provides an overview of the world of autism spectrum disorders, interventions, resources, and services

Oregon

www.ode.state.or.us/groups/supportstaff/specializedservices/autism/autismtap.pdf

Oregon has prepared a technical assistance paper for autism spectrum disorder entitled *Autism Spectrum Disorder Evaluation, Eligibility, and IEP Development*.

Diagnosis and Assessment Information

American Academy of Pediatrics

<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;107/5/1221>

The Pediatrician's Role in the Diagnosis and Management of Autistic Spectrum Disorder in Children is a policy statement to help the pediatrician recognize the early symptoms of autism and participate in its diagnosis and management. This statement and the accompanying technical report serves to familiarize the pediatrician with currently accepted criteria defining the spectrum of autism, strategies used in making a diagnosis, and conventional and alternative interventions.

First Signs

<http://firstsigns.org/>

Through statewide initiatives, the goals of First Signs are to provide all pediatricians and family practitioners with free information about screening for autism and other developmental disorders and to inform parents about the key social, emotional, and communication milestones. This website provides information and free downloads of screening tools for autism and other developmental disorders.

Educational Approaches

The Alert Program

<http://www.alertprogram.com/>

The Alert Program is used to help teach self-regulation awareness. The website provides information on the program's steps for teaching self-regulation awareness, workshop opportunities, and ordering information.

The Association for Behavior Analysis

www.abainternational.org

The Association for Behavior Analysis is dedicated to promoting the experimental, theoretical, and applied analysis of behavior. It encompasses contemporary scientific and social issues, theoretical advances, and the dissemination of professional and public information.

Division TEACCH

www.teacch.com

University of North Carolina-Chapel Hill structured teaching program. TEACCH stands for the Treatment and Education of Autistic and Related Communication Handicapped Children.

Do2Learn

www.doToLearn.com

The Do2Learn website provides free printable learning tools, including picture cards, organizational tools, and information.

Floortime-Stanley Greenspan

<http://stanleygreenspan.com/>

Stanley Greenspan is a practicing child psychiatrist, chairman of the Interdisciplinary Council on Developmental and Learning Disorders, and the founder and former president of the ZERO TO THREE: National Center for Infants, Toddlers, and Families. This website provides information

on Stanley Greenspan's research, treatment, intervention model (floortime), publications, and presentations.

Picture Exchange Communication System-Pyramid Educational Consulting Services

<http://www.pecs.com/>

The Picture Exchange Communication System is an augmentative alternative training package that allows children and adults with autism and other communication deficits to initiate communication. This website provides information on the services, training and products offered by Pyramid Educational Consulting Services, including information on Picture Exchange Communication System.

The SCERTS Model-Barry Prizant

<http://www.barryprizant.com/>

Dr. Barry M. Prizant is a clinical scholar, researcher, and consultant to families of young children with Autistic Spectrum Disorders (ASD) and related communication disabilities. This web site provides information on services provided by Dr. Prizant and his colleagues, including information on the SCERTS model: A Comprehensive Approach for Enhancing Communication and Socioemotional Abilities for Young Children with Autism Spectrum Disorder.

Sensory Integration-The Ayers Clinic

<http://www.siglobalnetwork.org/>

The concept of sensory integration comes from a body of work developed by A. Jean Ayres, PhD, OTR, which assessed how sensory processing and motor planning disorders interfere with daily life function and learning. This website provides information on the research of Dr. Ayres, the services provided by the Ayers Clinic, as well as resources and information on Sensory Integration Theory.

Social Stories-Carol Gray

<http://www.thegraycenter.org/>

Carol Gray is the original author of Social Stories. This website provides information on autism spectrum disorders and the Gray Center. It also provides information on Social Stories, Carol Gray's conferences, and resources.

Social Thinking-Michelle Winner Garcia

<http://www.socialthinking.com/>

Michelle Garcia Winner, M.A., C.C.C. is a speech and language pathologist who addresses the educational and life-planning needs of individuals with autism spectrum disorders. She specializes in social thinking and perspective-taking therapy and education for professionals, educators, children, and adults with high-end autism spectrum disorders, and their families. This website provides information on her services and training.

Visual Strategies-Linda Hodgdon

<http://www.usevisualstrategies.com/>

Linda Hodgdon is an autism specialist and speech language pathologist. This website provides information on utilizing visual strategies for children with autism spectrum disorders and includes free printable pictures. The site also provides information on Linda Hodgdon's materials, workshops, and services.

Organizations & Centers

Autism Research Institute (ARI)

www.autism.com/ari/

ARI is devoted to conducting research, and to disseminating the results of research, including the causes of autism and methods of preventing, diagnosing, and treating autism and other severe behavioral disorders in children.

Autism Speaks

<http://www.autismspeaks.org>

Autism Speaks is an organization dedicated to funding global biomedical research into the causes, prevention, treatments, and cure for autism; to raising public awareness about autism and its effects on individuals, families, and society; and to bringing hope to all who deal with the hardships of this disorder.

Autism Society of America (ASA)

www.autism-society.org

ASA is a national support network for individuals with autism and their families. Links are available on autism, advocacy, public awareness, research, and educational opportunities.

Indiana Resource Center on Autism

<http://www.iidc.indiana.edu/irca>

The Indiana Resource Center for Autism staff conduct outreach training and consultations, engage in research, and develop and disseminate information focused on building the capacity of local communities, organizations, agencies, and families to support children and adults across the autism spectrum in typical work, school, home, and community settings.

Spanish Language

Asociacion Nuevo Horizonte

<http://www.autismo.com/>

Directorio de recursos relacionados con el autismo, articulos, congresos, y tablon de mensajes.

Autismo

<http://www.geocities.com/Athens/Troy/8638/>

Enlaces a sitios relacionados a este sindrome.

Autismo.com

<http://www.autisme.com/>

Definicion, tratamientos, bibliografia, y organizaciones en Espana.

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FEEDBACK QUESTIONNAIRE

The Office of Superintendent of Public Instruction (OSPI) is interested in your ideas about *The Educational Aspects of Autism Spectrum Disorders*. Your input is valuable to the agency's commitment to continuous improvement in the products produced for school personnel and families of children receiving early intervention and special education services. Please take a few minutes to respond to the following questions.

What chapters or sections were helpful to you and why?

What chapters or sections were confusing or did not help you and why?

Do you have suggestions for improving the manual? If so, please list your ideas.

The questionnaire can be returned by:

- mail to OSPI, Special Education Section, P.O. Box 47200, Olympia, WA 98504-7200;
- fax at (360) 586-0247; or
- email at speced@k12.wa.us.

THANK YOU.