AUTISM

Reaching for a brighter future

Service Guidelines for Individuals with Autism Spectrum Disorder through the Lifespan

HISTORY & ACKNOWLEDGMENTS

The Autism Service Guidelines for Individuals with Autism Spectrum Disorder: Birth Through Adulthood is a revision of the original Autism Service Guidelines developed in 2004. The revision extends the focus of the Autism Service Guidelines for Individuals with Autism Spectrum Disorder and Pervasive Developmental Disorder (ASD/PDD): Birth Through Twenty-One to include consideration for services for adults. In addition, all content, references, resources, and websites have been reviewed and updated with this revision.

The committee responsible for this work has included parents and professionals representing medical, educational, developmental disability, and higher education programs ranging in focus from early childhood to adult service. The revision committee acknowledges the original task force for its painstaking work in researching, organizing, and writing the Service Guidelines for Individuals with Autism Spectrum Disorder and Pervasive Developmental Disorder (ASD/PDD): Birth to Twenty-One. We also acknowledge the Ohio Developmental Disability Council for its ongoing support in staffing the original work and its continued support for this revision.

As with the first edition, these guidelines are intended to serve as a tool to help families, educators, medical professionals, care providers, and other service providers make informed decisions about children, youth, and adults with ASD. They may be viewed as a map to the development of independence for the individual with ASD at the highest level possible in all life areas. These guidelines are not a required standard of practice for the education of these individuals in Ohio. The Ohio Center for Autism and Low Incidence and the Autism Society of Ohio collaborated to facilitate the work of the committee in completing this revision. This work was funded by the Ohio Department of Education's Office for Exceptional Children.

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
Ohio

Ohio
Developmental
Disabilities Council
Improving the lives of Ohioans with disabilities

OCALI

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educational service center
of Central Ohio *Serving Delaware, Franklin & Union Counties*

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USER GUIDE

PURPOSE AND SOURCE

THESE GUIDELINES OFFER BASIC CONCEPTS related to providing supports for individuals with autism spectrum disorder (ASD). The information and recommended strategies and modifications were compiled by committees and agreed upon by the Autism Service Guidelines Revision Committee.

These guidelines are intended to provide recommendations based on current knowledge about best practices for the assessment of individual needs and the delivery of appropriate services and supports to individual of all ages with ASD. They are intended to help individuals with the disorder move from one developmental level to another and gain momentum in the process.

The guidelines were originally developed in response to the rapidly growing body of knowledge that is available regarding ASD. This information has expanded the opportunities available to families and professionals to improve the lives of individuals with the disorder.

Several decades ago, if a child was diagnosed with autism, there was little hope for him or her leading anything close to a “normal” life. In fact, many parents were encouraged by professionals to place their child with autism in institutional care to spare the family the stress and heartache of attempting to raise the child. However, recent research has demonstrated that by providing individuals with autism appropriate services and supports at appropriate developmental levels, significant gains in most life areas can be achieved, and the person with ASD can thrive. Also, due to a shift to the “spectrum” view of autism, we are now better able to identify and assist those individuals who have less severe forms of the disorder. These individuals were most often left undiagnosed in the past and did not receive many appropriate services or supports even though we now know they could have benefited greatly. The increased rate of identification has moved the diagnostic category of ASD from being considered a low-incidence disorder to being a relatively high-incidence disorder. This shift requires changes in attitudes, policies, and the allocation of resources to address the needs of every person with ASD in a fair and appropriate manner.

HOW TO USE THIS DOCUMENT

DESCRIPTION

The sections in this document cover a variety of information on autism:

- Definition
- Medical Aspects
- Ohio's Birth Through 5 System
- Components of Instruction and Resources
- Transition from School
- Serving Adults

Autism is defined differently in the fields of education and medicine. A description and educational and medical definitions are provided. Education includes: Learning, Curricula, and Instruction; Transition covers preparation for life beyond school; and Serving Adults includes social issues and residential needs. Appendices include additional information and resources for further reference and research.

It is recommended that the user of this document not look at the sections in isolation. Given the complex nature of ASD, delivery of educational supports often requires consideration of many aspects of the person at once. Cross-referencing is provided to assist the reader in gaining a more comprehensive understanding of each of the topics. Being familiar with all contents of the document is ideal.

This document should be a part of your regular planning and training process. It should be used in tandem with continuous inservice training for families, educators, medical professionals, care providers, and other service providers.

Practitioners and families are encouraged to use the information in these guidelines, recognizing that the services should always be tailored to the individual. Therefore, not all of the recommendations will apply in every circumstance. The decision to adopt a particular recommendation must be made relative to circumstances presented by an individual and his or her family.

WHAT THIS DOCUMENT IS NOT

These guidelines are not a required standard of education or service for individuals with ASD in Ohio.

They are not intended to support any specific intervention, treatment program, methodology, or medication.

RECOMMENDED PROCESS

- When using this document to address a particular need, identify in the Table of Contents the section that most closely relates to the topic. Then read the entire section and any referenced sections.
- Work with the individual's team to develop a plan. When related issues arise in the planning process, review those topics and referenced sections.
- Periodically review the progress, implementation, and plan. The guidelines include recommendations for assessment and may be used to generate next steps.
- Refine the plan and its implementation on a regular basis, returning to the Guidelines for further information and recommendations as appropriate.

INTRODUCTION TO AUTISM

WHAT IS AUTISM OR AUTISM SPECTRUM DISORDERS

Autism is a neurobiological syndrome resulting from a dysfunction of the central nervous system that leads to disordered development. According to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), published by the American Psychiatric Association (1994, pp. 70-71), the onset of symptoms in autism occurs within the first three years of life and includes three general categories of behavioral impairment common to all persons who have autism:

- Qualitative impairments in social interaction
- Qualitative impairments in communication
- Restricted, repetitive and stereotyped patterns of behavior, interest and activities

A number of other common findings in children with autism are not part of the diagnostic criteria. These may include unusual responses to sensory stimulation, behavioral disturbances, and significant strengths and weaknesses in cognitive areas.

In recent years, the conceptualization and criteria defining the condition called autism have evolved significantly. The definition has broadened so that autism is now seen as a spectrum disorder. The majority of specialists believe that the boundaries along the continuum overlap to a large degree.

Autism may be more common than previously realized, particularly if the broader definition of autism as a spectrum disorder is used to determine the number of cases. Earlier studies suggested that the prevalence of autism is about 3-4 individuals in 10,000, but the latest study from the Centers for Disease Control (CDC; 2009) indicates higher rates of ASD, up to 1 in 110 in children ages 6 or older. The higher estimated rates reflect inclusion of the broader range of autism, including milder subtypes on the spectrum (pervasive developmental disorder [PDD-NOS] and Asperger Disorder). The apparent increase may also be a result of improved diagnosis, but the existence of a real increase in prevalence cannot be ruled out.

DEFINITION OF AUTISM

EDUCATIONAL DEFINITION (IDEA) – FEDERAL REGULATION, 34 CFR 300.7(C)(1)

I. Autism means a developmental disability significantly affecting verbal and non-verbal communication and social interactions, generally evident before age three that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in routine, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance, as defined in paragraph (b) (9) of Federal Regulation 34 CFR 300.7.

II. A child who manifests the characteristics of "autism" after age three could be diagnosed as having "autism" if the criteria in paragraph (I) of this section are satisfied.

OHIO DEFINITION

Adopted federal definition.

AUTISM SOCIETY OF AMERICA DEFINITION

Autism is a complex developmental disability that typically appears during the first three years of life. The result of a neurological disorder that affects the functioning of the brain, autism impacts the normal development of the brain in the areas of social interaction and communication skills. Children and adults with autism typically have difficulties in verbal and non-verbal communication, social interactions, and leisure or play activities. Autism is one of five disorders falling under the umbrella of pervasive developmental disorders (PDD), a category of neurological disorders characterized by "severe and pervasive impairment in several areas of development," including social interaction and communications skills (DMS-IV-TR). The five disorders under PDD are:

- Autistic Disorder
- Asperger Disorder
- Childhood Disintegrative Disorder (CDD)
- Rett Disorder
- PDD-Not Otherwise Specified (PDD-NOS)

For each of these disorders, specific diagnostic criteria are outlined by the American Psychiatric Association (APA) in its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR).

MEDICAL DEFINITION (FROM DSM/IV)

Autism Spectrum Categories and Diagnostic Criteria

Overview of Autism Spectrum Disorder

ASD is a group of conditions with common dysfunction in the domains of socialization and communication. These include Autistic Disorder, Asperger Disorder, Rett Syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder-Not Otherwise Specified. In 2010, the CDC estimated that an average of 1 in 110 children in the United States had ASD.

AUTISTIC DISORDER is the classic form of ASD with a male-female ratio of 3-4:1. Diagnosis is usually made between ages 18 months to 3 years, with some children showing features in the first year of life. Individuals with this diagnosis demonstrate dysfunction in three core areas: socialization, communication, and repetitive behaviors.

- Socialization abilities are most severely affected in the early preschool years with the child either socially unavailable or a social loner. Social skills may improve over time, but still show variable dysfunction ranging from remaining a social loner to acquiring social skills that are stilted and pedantic.

- Impairment in communication ranges from absence of an apparent desire to communicate to excessive speech with poor interactive conversation. All individuals have impairment in pragmatic abilities, such as poor eye contact, voice modulation, and use and understanding of gestures and other nonverbal body/facial expressions. They are literal in interpretation of others' comments and actions, and have difficulties with insight into others' actions and perspectives. Echolalia is generally present in a transient or permanent manner. Play usually shows a deficit in imagination and symbolic features, although some children develop a restricted pretend play.

- A core component of autistic disorder is restricted activities and interests that can range from repetitive motor actions such as opening and closing doors, finger flicking, spinning, and lining up objects, or fascinations with mechanical or other themes. Resistance to change in routine is commonly seen in the preschool years and may persist to adulthood.

ASPERGER DISORDER is characterized by less severe impairment in socialization but with difficulties interpreting social cues. Language, while usually normal in achievement of developmental milestones, is characterized by associated problems in abstraction, interpretation, and pragmatics. Areas of fascination are usually cognitively based. By definition, individuals with Asperger Disorder have borderline to normal intelligence. Many individuals with Asperger Disorder have problems with fine- and/or gross-motor function.

RETT SYNDROME occurs after an apparently normal early infancy with a stagnation and loss of developmental skills between ages 5 to 30 months. This is associated with a deceleration of head growth, loss of purposeful hand use and replacement with stereotypic hand movements such as hand wringing and mouthing, gradual appearance of gait unsteadiness, severe impairment in expressive and receptive language, and impairment in cognitive abilities. This disorder is primarily limited to girls, who may transiently show impairment with socialization during its evolution. Most develop seizures. Most types of Rett Syndrome are caused by an abnormality in the MECP2 gene on the X chromosome.

CHILDHOOD DISINTEGRATIVE DISORDER has behavioral features similar to autistic disorder with onset between ages 2 to 10 years after an apparently normal early childhood. It is sometimes associated with specific medical disorders and has a more severe prognosis for significant improvement.

PERVASIVE DEVELOPMENTAL DISORDER-NOT OTHERWISE SPECIFIED (PDD-NOS) is a diagnosis applied to children who have some, but not all, of the features of autistic disorder (either quantitatively or qualitatively). All individuals have impairment in socialization with either impairment in communication or restricted activities/interests. This category is not as well defined as the others and may inadvertently be applied to children with socialization difficulties due to other conditions.

CHANGING DIAGNOSTIC CRITERIA

The DSM is currently in the process of revision, with changes to be finalized by 2013. For the revised fifth edition of the DSM, changes have been proposed in the diagnosis of neurodevelopmental disorders, including ASD (see www.dsm5.org). According to The Social Policy Report (2010), “the [proposed] revised criteria include only two symptom domains (social-communication and fixated, repetitive interests), eliminate subtypes of ASD, and describe individual differences in terms of dimensions of severity in the two domains, relative to developmental levels and chronological age. Thus, an individual with an ASD diagnosis would be described in terms of severity of social communication symptoms and severity of fixated or restricted behaviors or interests. This diagnosis could be associated with other known genetic or medical conditions (e.g., ASD and Rett syndrome or ASD and Fragile X), language disorders, or other psychiatric conditions (e.g., ASD with ADHD, ASD with intellectual disability).”

MEDICAL ASPECTS

INTRODUCTION

This section describes issues related to diagnosis and medical concerns for individuals with ASD. It includes guidelines for medical assessment and intervention in a wide range of medically related areas. Many of the areas involve daily living skills such as feeding, sleeping, and dental care. Others are psychosocial in nature, such as anxiety, tics, and mood disorder. This section is best used in conjunction with the remainder of the document, because medical interventions alone may not be sufficient to change behavior or to maximize learning. It is, however, important to address potential medical problems, because they can limit all other areas of development.

- **Routine screening of all children**
- **Referral for further evaluation for children who fail developmental screening**
- **Further evaluation to rule out genetic or other underlying medical causes for developmental delay**
- **Early access to treatment**

SCREENING

Screening of all toddlers for a possible diagnosis of ASD at 18 and 24 months of age is currently recommended by the American Academy of Pediatrics. Among the recommended screening tools are the M-CHAT, ASQ:3, and the ASQ: SE (see page 16). If the screening reveals developmental concerns, the child should be referred for an in-depth developmental assessment.

In the population of children 3-21, those who are exhibiting a concerning combination of language, social, and behavioral difficulties are candidates for assessment as well as a more comprehensive evaluation. At-risk children include those with social-pragmatic language difficulties, circumscribed intense interests, and significant dysfunction in social interaction.

MEDICAL TESTING TO CONSIDER

1. **Chromosomal Analysis** According to the CDC (2010), about 10% of children with an ASD have an identifiable genetic disorder. Therefore, all children with ASD should have high-resolution chromosomal analysis and DNA testing for fragile X syndrome. Additionally, certain children may be candidates for even higher level genetic testing, including cytogenetic microarray.

2. **Electroencephalography** (EEG) is not a routine study in this population. This test is indicated in individuals who have a history of autistic regression (normal developmental progress with loss of functional language and/or social skills) and in those with clinical suspicion of seizures. The EEG study should be done in both the awake and the sleep state, recording at least one complete sleep cycle. Because some medications used for sedation for sleep can transiently suppress epileptiform activity, sleep should be recorded with natural onset (such as naptime or overnight sleep) or with medication that does not affect epileptiform activity.

3. **Hearing and Vision Screens** in all children.

4. **Other Tests** should be ordered as clinically indicated and not because of the diagnosis of ASD. Children with developmental/cognitive impairment and ASD may be candidates for testing for inborn errors of metabolism, including amino acid and organic acid assays. Other studies such as allergy testing, immune workup, and heavy-metal assays should be conducted only if there are clinical features of these types of disorders.

5. **Lead Levels** should be considered for children with ASD and for individuals with excessive mouthing behavior or pica (eating non-nutritive substances).

6. **Evaluation of Gastrointestinal Dysfunction.** Despite anecdotal reports, no causal relationship has been established between gastrointestinal dysfunction and ASD. Since individuals with ASD may have GI dysfunction of diverse etiology such as gastroesophageal reflux, constipation, disaccharidase deficiency (lactose intolerance), and excessive juice intake, evaluation should be based on the clinical presentation and not necessarily on the diagnosis of ASD. It should be noted that children with ASD might respond differently to common pediatric GI problems, particularly constipation, which has anecdotally been reported to negatively influence and alter behavior in individuals with ASD.

7. **Brain MRI** rarely shows any significant abnormality in individuals with ASD unless there is a co-existing condition. Therefore, MRI is recommended only for appropriate clinical indications such as microcephaly, macrocephaly, seizures, or focal neurologic features.

8. **Brain Neuroimaging** for Childhood Disintegrative Disorder. Individuals with childhood disintegrative disorder should undergo an evaluation that includes brain neuroimaging, awake and sleep EEG, detailed metabolic testing, and other tests as indicated by the history and clinical presentation.

MEDICAL DIAGNOSIS

To diagnose ASD, a comprehensive multidisciplinary evaluation by professionals experienced with ASD should be done. A complete history and physical examination should be performed, with emphasis on family history of individuals with similar difficulties, information from previous evaluations, and physical findings suggestive of other medical/genetic conditions. Since some medical disorders are associated with or appear similar to ASD, the medical evaluation is needed before any definitive diagnostic statement regarding ASD is made.

Ideally, the multidisciplinary approach will include an evaluation by a psychologist experienced in evaluating children with ASD. Evaluation should also be provided by a speech-language pathologist with expertise in assessing children with ASD. This should be done even in a child with apparently normal speech, in part to examine social and pragmatic skills.

The school also plays a role in the diagnostic evaluation of a child 3-21 for possible ASD. In addition to being a source of referral for diagnostic evaluation, school personnel, including classroom teachers and paraprofessionals, can assist by providing accounts of behavioral observations as well as academic and psychological testing information.

The family is an essential member of the diagnostic team. Family members contribute by providing the important historical information. They can optimize their role by becoming familiar with the features of ASD and helping the diagnostic team recognize the features that may or may not be present in their child.

AUTISM SPECIFIC DIAGNOSTIC/SCREENING INSTRUMENTS

The following list includes several of the instruments that are often used to screen for or diagnose ASD in children. They measure function and dysfunction across the various areas of ASD. Please note that those using these instruments for screening and diagnostic purposes should have a good knowledge of ASD and training in the use of the various instruments. Also note that inclusion in this list does not imply a recommendation that a specific instrument be used as part of the screening or evaluation process.

The diagnostic assessment of an individual should occur through a multidisciplinary approach.

SCREENING INSTRUMENTS

Ages and Stages Questionnaire Third Edition (ASQ-3)

This is a parent-friendly screening tool for young children. This tool makes it possible to identify potential delays and determine which children need further assessment or ongoing monitoring. This tool is not autism specific. It can be used with children up to 5 ½ years of age.

Ages and Stages Questionnaire: Social Emotional (ASQ: SE)

This is a parent-completed tool that assesses the social and emotional competence of young children. This tool is not autism specific. It may be used with children from 6 to 60 months.

Autism Spectrum Screening Questionnaire (ASSQ)

The ASSQ is a 27-item checklist for completion by lay informants when assessing symptoms characteristic of Asperger Syndrome and other high-functioning autism spectrum disorders in children and adolescents with normal intelligence or mild mental retardation.

Checklist for Autism in Toddlers (CHAT)

The CHAT is a brief checklist to screen for ASD in children at or above the age of 18 months. It consists of two components: (a) a short list of questions for the primary caregiver to complete and (b) observations by a primary health care provider in an office setting to look for behavioral features of ASD. It may be used on children from 18 to 24 months.

Modified Checklist for Autism in Toddlers (M-CHAT)

The M-CHAT is an expanded American version of the original CHAT from the UK. The M-CHAT has 23 yes/no questions using the original 9 from the CHAT as its basis. It may be used with children from 15 to 59 months old.

Pervasive Developmental Disorder Screening Test II (PDDST-II)

The PDDST is a parent-report screening tool that is designed to screen for several autism spectrum disorders in young children. It is designed to be used with children between 12 and 48 months of age.

Social Communication Questionnaire (SCQ)

This brief instrument helps evaluate communication skills and social functioning in children who may have an ASD. It is completed by a parent or other primary caregiver. It may be used to evaluate anyone over the age of 4, with a mental age of at least 2 years. The Lifetime form looks at the child's entire developmental history. The Current form looks at the child behavior over the previous three months.

DIAGNOSTIC INSTRUMENTS

Asperger Syndrome Diagnostic Scale (ASDS)

The ASDS is a rating scale that can help determine whether a child has Asperger Disorder. Anyone who knows the child or youth well can complete this scale, including parents, teachers, siblings, paraeducators, speech-language pathologists, psychologists, psychiatrists, and other professionals can answer the 50 yes/no items. The instrument is designed to identify Asperger Disorder in children ages five through eighteen.

Autism Diagnostic Interview – Revised (ADI-R)

The ADI-R is a standardized, semi-structured, investigator-based interview of individuals with ASD. It can be used for children with mental age of or above eighteen months. It takes several hours to administer and score. Primarily, it is a tool for use in research studies.

Autism Diagnostic Observation Scale (ADOS)

The ADOS is a structured observation schedule for diagnosing an ASD. It focuses on qualitative features of socialization and communication and has an interactive component as well. Several modules are available, including one for children who are not yet using spoken language. The ADOS may be used from toddlers through adults.

Autism Screening Instrument of Educational Planning – Third Edition (ASIEP-3)

The ASIEP-3 rates individuals at or above 18 months of age in five areas (sensory, relating, body concept, language, and social self-help). It is designed to (a) identify individuals with autism, (b) assist in planning appropriate educational programs for those individuals, (c) monitor performance and progress, and (d) research autism.

Childhood Autism Rating Scale (CARS)

CARS is a tool for diagnosing ASD. It is scored with information from parent report, available records, and observation of the child. It may be used for children 2 years and older.

Gilliam Asperger's Disorder Scale (GADS)

The GADS is a norm-referenced assessment tool designed to evaluate individuals with unique behavior problems who may have Asperger's Disorder. Completed by a parent or professional at school or at home, the GADS discriminates persons with Asperger's Disorder from those with autism and other behavioral disorders. Appropriate for individuals aged 3 to 22.

Gilliam Autism Rating Scale (GARS-2)

The GARS-2 is based on the DSM-IV definitions of ASD and consists of four subtests (stereotyped behaviors, communication, social interactions, and developmental disturbances). This rating scale may be used for identification and diagnosis of individuals at or above age 3.

MEDICAL INTERVENTION FOR INDIVIDUALS WITH ASD

Autistic spectrum disorders are now recognized as neurobiologic, brain-based conditions. Individuals with ASD require ongoing medical monitoring and care, like any other person with a chronic medical condition. All treatments – medical and nonmedical – should be reviewed at every visit. The frequency of this monitoring should be individualized to the individual's specific needs.

This care should occur under the supervision of a medical professional knowledgeable about ASD. It includes monitoring a individual's progress, treating associated medical conditions, assisting the family in investigating and accessing appropriate medical and other interventions, and keeping the family informed about new medical tests and interventions. It is important to note that adaptive care strategies, including visual supports and calming strategies, should be in place to support the individual and family to ensure positive, successful heath care encounters.

The role of the medical practitioner starts with appropriate identification and continues with medical testing for potential underlying etiologies and monitoring for co-occurring conditions and their treatment.

MEDICAL CONCERNS AND CO-OCCURRING DISORDERS

Accidental Injury

Increased rates of accidental injury can result from many of the more specific behavioral abnormalities seen in ASD. For example, social avoidance can cause excessive running. Sensory issues can cause ingestion of nonfood items or accidental burns/lacerations. And absence of a sense of danger can place the individual in potentially harmful environments. Therefore, monitoring and preventive anticipation are important.

Aggression

While a certain amount of aggressive behavior is common in all children at various ages, children with ASD tend to express these behaviors more frequently and with greater intensity. Tantrums are common in young children with ASD. Oppositional behavior is common in older children and adults. Tantrums can persist and escalate into dangerous self-injury, aggression, and property destruction. Reasons for aggression are varied. Concurrent illness or pain can often provoke or aggravate behavior and should be investigated. Intervention is dependent on the suspected underlying triggers or causes. (For more information, refer to Functional Analysis of Behavior and Behavior Interventions sections.)

Anxiety

In addition to the impaired social interaction characteristic of ASD, some individuals avoid social contact that results in high levels of anxiety (social anxiety). Generalized anxiety and anxiety secondary to interference with rituals or routine can also be problematic. Specific aversions (fears/phobias) can grow to debilitating proportions and prevent participation in formerly preferred activities. These anxiety disorders can respond to behavioral and/or pharmacologic treatment.

Attention Deficit/Hyperactivity Symptoms

Impaired ability to attend to some portions of the environment is characteristic of individuals with ASD. This may be manifested by poor discrimination, focusing on unusual or partial cues needed for an adaptive response, and rapidly shifting attention, which, in turn, may be associated with increased general activity. Some individuals with ASD manifest more of these hyperactive and inattentive symptoms than others. Although the attention-deficit/hyperactivity disorder (ADHD) diagnostic criteria exclude the presence of ASD, the target symptoms may sometimes respond to the same treatments as ADHD in the general population.

Dental Care

According to American Academy of Pediatrics guidelines, all children, including those with ASD, should be seen by a dentist for routine dental cleaning and evaluation by age 1 or within 6 months of the first tooth eruption. The treating dentist should have experience working with individuals with special needs, particularly if sedation will be used. Parents should strive to teach their children good dental hygiene at an early age since the sensory aversion associated with tooth brushing may make it difficult, if not impossible, to teach and implement brushing skills at an older age.

Feeding/Nutrition

Individuals with ASD often prefer a limited variety of foods. This may be due to refusal to transition between textures, unwillingness to try foods of a particular color or texture, increased sensory sensitivity, or difficulties related to mealtime. Food preferences may also be a reflection of the rigidity with which many individuals with ASD function. With slow introduction of healthier food choices, individuals can generally be encouraged to try new foods. Under-nutrition or overt malnutrition is rarely seen among this population. A wide variety of dietary supplements and elimination diets are informally reported to improve or reduce many of the unfavorable behaviors seen in individuals with ASD. At this time, there are no conclusive scientific studies to support the use of these dietary interventions. Individuals with pica (eating nonedibles), coprophagia (consumption of feces) or obsessive-compulsive symptoms manifesting as food or eating rituals should be referred for evaluation. Parents of children who experience these difficulties should consult with a professional (speech-language pathologist, occupational therapist, psychologist, registered dietitian, nutritionist, etc.) who has experience working with feeding issues in children with ASD.

Mood Disorder

Loss of interest in usual activities, unexplained fatigue, change in sleep habits (increase or decrease), change in appetite (increase or decrease), change in concentration/cognition, and signs of distress, such as moaning or crying for no apparent reason, may reflect clinical depression. A person need not show all possible signs of depression to qualify for the diagnosis but should demonstrate more than one. The diagnosis should be especially suspected when a recent loss has occurred. (Because of their core deficits, persons with ASD may not appear as bereaved by death of a family member as would be expected.) Decrease in sleep time, increase of activity level, unprovoked aggression, disinhibition (e.g., sexual), increased appetite, irritability, and giddiness or elation, especially if cyclical, may suggest bipolar disorder. Again, a person need not show all signs and symptoms. Sometimes the main clue is a cyclicity of behavior of any kind (such as aggression, bolting, self-injurious behavior), often preceded by a few nights of unaccustomed sleeplessness. All individuals with suspected mood disorders should be referred for further evaluation and treatment.

Obsessive/Compulsive and Severe Ritualistic Patterned Behavior

Compulsive behaviors and rituals are seen in many individuals with ASD. They can develop from narrow preferences or simple stereotypies. Excitement often accompanies ritualistic behavior. Attempts to obstruct or distract a person with ASD from pursuing patterned behavior easily elicit explosive reactions or aggression, possibly anxiety-driven. When OCD (obsessive/compulsive disorder) features are present, they may respond favorably to appropriate behavioral and/or pharmacologic interventions.

Other Psychiatric Disorders

Individuals with ASD often develop associated or secondary psychopathology (emotional, mental, or behavioral) that may be responsive to treatment. The first line of treatment for most of these problems is behavioral; however, in some cases, treatment with medication is indicated.

Puberty

Several issues occur during adolescence that may require assessment and monitoring. These include an increased incidence of epilepsy, especially complex partial seizures, mood disorders (depression and bipolar disorder), aggression, masturbation, and increased interest in sexuality issues. Interventions are dependent on the underlying condition and include behavioral and pharmacologic treatment. Developmentally appropriate instruction about sexuality and issues such as menstruation and understanding of choices in areas such as birth control is important. (For more information, refer to section on Sexuality.)

Seizures

Children with ASD are at increased risk for the development of seizures with up to 20-30% prevalence by adulthood. The types of seizures are no different from those of the typical pediatric population. There should be a low threshold for obtaining an EEG on children who are exhibiting activity suggestive of seizures. Treatment with anticonvulsant medication depends on the seizure type and frequency, with decisions based on individual need.

Self-injurious Behavior

Self-injurious behavior (SIB), such as head banging, picking, biting, and self-hitting, occurs in individuals with ASD, especially those with an intellectual disability and impaired communication ability. Investigation of potential triggers/causation is mandatory. Intervention may be behavioral and/or pharmacologic, depending on the suspected underlying reason. (It should be noted that certain SIBs can result in serious damage, such as blindness and should not be minimized.)

Sensory Challenges

Many children with ASD show differences in their responses to various sensory stimuli. For example, they may have an increased or decreased sensitivity or preference for a particular stimulus (e.g., prefer rocking, prefer cotton over nylon, or avoid a certain sound). Sensory issues may impact behavior. Some children with sensory challenges are diagnosed with a sensory processing disorder.

Sleep

Sleep difficulties are common in individuals with ASD. These include problems with sleep onset, night waking, and early waking. Sleep problems can be behavioral in nature, reflective of an underlying organic disorder, or a combination of both. Because sleep problems can disrupt family life, they should be addressed aggressively. Behavioral strategies to ensure good sleep hygiene should be established. Medical interventions for individuals who have organic sleep disorder include further testing and possible use of medications. Since seizures can disrupt sleep, an EEG should be considered in the appropriate context.

Stereotypes

Simple repetitive behavior characterizes much of the play of young children with ASD. This can consist of looking at bright objects, listening to repeated sounds and vocalizations, or repetitive motor mannerisms. High rates of stereotypies can interfere with adaptive learning in school and in the community. Stereotypies may persist into adulthood. They are often not responsive to medication.

Tics

Tics are irregular, repetitive muscular contractions that may be patterned enough to result in apparently meaningful behavior. Tics vary greatly in severity. Some clinicians report a greater-than-chance occurrence of tics in individuals with ASD. Mild, nonimpairing tics need not be treated. More severe tics can be disabling and may respond to medication.

Additional Interventions

Medications

Like any treatments, if a child is on a medication, this should be reviewed at every followup visit. A variety of medications have been prescribed for individuals with ASD. and several have been researched; however, there is no one medication that works for every person with ASD. The medication used with an individual with ASD needs to be symptom specific. Hyperactivity, sleep problems, obsessive tendencies, anxiety, aggression, and self-injury are some of the symptoms that may be targeted with specific medications. Medications should be given on a trial basis with close monitoring of positive and negative effects. Since there are few objective measures of an individual’s response to a medication, reliance on subjective information (parent, teacher, and caregiver reports) is common. The observations of parents and caregivers should be systematically collected by logs, charts, scales, or other accepted behavioral documentation. Occasionally, a trial of medication tapering and discontinuation is a way to determine a medication’s efficacy and/or whether it is still needed.

Alternative Therapies

Interventions have been proposed based on theories of autism causation such as vaccines, heavy-metal poisoning, dietary factors, and auditory hypersensitivity. While anecdotal reports of intervention efficacy exist, there is no reproducible scientific research to support these claims of improvement outside of the possible impact of the placebo effect. If a trial of an alternative therapy is undertaken, it is important to ensure that the potential side effects are not harmful and that the trial does not impede the implementation of other proven treatments. It is also important to use the guidelines listed above under Medications to document the effectiveness of an alternative treatment.

References:

Lord, C. & Bishop, S. L. (2010). Autism spectrum disorders: diagnosis, prevalence and services for children and families. Social Policy Report, 24(2). Retrieved from http://www.srcd.org/index.php?option=com_content&task=view&id=232&Itemid=550

The Centers for Disease Control. (2009). Morbidity and mortality weekly report: Prevalence of autism spectrum disorders. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5810a1.htm

OHIO'S SYSTEM OF SERVICES FOR INDIVIDUALS AGES BIRTH THROUGH 3 AND THEIR FAMILIES

EARLY INTERVENTION – BIRTH TO 3

Help Me Grow (HMG) is Ohio's birth to 3 system, which provides state and federal funds to county Family and Children First Councils to be used in conjunction with state, local, and other federal funds to implement and maintain a coordinated, community-based infrastructure that promotes transdisciplinary, family-centered services for infants and toddlers and their families. The Ohio Department of Health, Bureau of Early Intervention Services (BEIS), is the lead agency administering the HMG program in Ohio.
www.ohiohelpmegrow.org/aboutus/AboutHelpMeGrow.aspx

The Strickland Administration in 2009 proposed the creation of a single administrative structure with the authority and responsibility to implement and coordinate state-funded or -administered early childhood programs and services for children prenatal until entry into kindergarten called the Center for Early Childhood Development (CECD). Under the proposed CECD implementation plan, early childhood services would be administered by the Ohio Department of Education. The proposed CECD implementation plan is currently under consideration, and no definite timeline exists. To learn more about this plan, you can check this website www.build-ohio.org

Help Me Grow promotes the well-being of young children through home-based specialized services and public awareness, with special emphasis on early intervention and prevention. The program helps families with young children connect with the resources they need. Through the Help Me Grow system, families of children with delays, disabilities, and diagnosed conditions with a high probability of resulting in a delay have access to service coordination, evaluation and assessment, and early intervention services to support the family and child until the child's third birthday.

When a child is identified with a developmental delay, early intervention service needs and family priorities are identified for each child and family through the development of an Individual Family Service Plan (IFSP). The IFSP is a family-directed document, which includes outcomes that support the development of the child. Early intervention services are then provided through several entities, including County Boards of Developmental Disabilities (CBDD) and other lead agency contracted providers. Such services include child development and family support activities provided by certified and licensed services providers, including service coordinators, early intervention/ developmental specialists, as well as speech, physical and occupation therapists. The focus of any early intervention services and supports is to help the family meet the unique needs of their child and to work collaboratively with other providers within the statewide Help Me Grow system.

Service coordinators can assist families in becoming familiar with the agencies that offer support to children prior to age 3 as well as those that continue support through the lifespan. Families may discover that some agencies offer limited support during childhood (except in situations where child and family needs are significant) but that assistance intensifies, as children become youth ready to transition to employment and adult living. Families looking to the future may want to become familiar with the eligibility requirements and potential services for both children and adults by contacting a local office or representative of a variety of agencies. Important agencies to research and possibly contact include Ohio Department of Developmental

Disabilities, Ohio Rehabilitation Services Commission (Bureau of Vocational Rehabilitation, a future resource), Ohio Department of Jobs and Family Services and Social Security Administration. Refer to the Agency Overview table in Appendix VI for a brief explanation of eligibility, services, and a timeline of activities to assist in connecting with each agency.

The first agency contacts for a young child are:

Ohio Department of Health – Help Me Grow www.ohiohelpmegrow.org
Ohio Department of Developmental Disabilities http://ddod.ohio.gov/

The Ohio Special Education Technical Assistance Community of Practice states that "Part C , the section of the Individuals with Disabilities Education Improvement Act which addresses early intervention, builds upon and provides supports and resources to assist family members and caregivers to enhance children's learning and development through everyday learning opportunities." Additionally, they developed seven key principles regarding the provisions of early intervention services for young children that detail that mission:

1. Infants and toddlers learn best through everyday experiences and interactions with familiar people in familiar contexts.
2. All families, with the necessary supports and resources, can enhance their children's learning and development.
3. The primary role of a service provider in early intervention is to work with and support family members and caregivers in children's lives.
4. The early intervention process, from initial contacts through transition, must be dynamic and individualized to reflect the child's and family members' preferences, learning styles and cultural beliefs.
5. IFSP outcomes must be functional and based on children's and families' needs and family-identified priorities.
6. The family's priorities, needs, and interests are addressed most appropriately by a primary provider who represents and receives team and community support.
7. Interventions with young children and family members must be based on explicit principles, validated practices, best available research, and relevant laws and regulations.

References:
From Workgroup on Principles and Practices in Natural Environments. (2007). Mission and principles for providing services in natural environments. OSEP TA Community of Practice-Part C Settings.
http://www.nectac.org/topics/families/families.asp

GUIDING PRINCIPLES FOR EARLY INTERVENTION

Additional explicit principles for early intervention for young children with ASD include:

Principle 1: The earliest possible start to intervention is essential.

It is generally accepted that children that receive intervention earlier achieve better results. One of the most exciting accomplishments in the field of ASD is the ability to recognize and treat the disorder at a very early age. Routine screening can identify children who are at risk for ASD at 16 months of age, and current studies are beginning to identify risk factors at even earlier ages. Research on treatment for ASD is encouraging. Although characteristics of ASD may be lifelong, having ASD is no longer considered a barrier to a full and happy life. Today people with ASD, including those with complex challenges, can be found living in communities, attending neighborhood schools and working as adults.

Principle 2: Interventions are designed around family priorities and participation.

A primary purpose of early intervention is to enhance the capacity of families to support their children's development and learning. In order to achieve this, supports and services need to be relevant to families' lives. Early intervention services need to address families' concerns, priorities, and resources as well as "fitting" the context of their culture, life-style, and schedules. Service providers need to focus on this from the very beginning of their relation with the family, from the initial stages of eligibility through the development of the Individualized Family Service Plan (IFSP). Service providers can keep their supports and services relevant by listening to, and planning with families. Active dialogue between providers and parents, coaching and modeling during visits, reflecting on strategies that have worked and those that have not, tailoring carry-over strategies to changes in the family and child's life, are all a part of the services and supports in early intervention.

Each child and family's services are based on that child's needs, strengths, and interests and the family's concerns, priorities, and resources. This is different for each child and family because each child and family is different. The development of the Individualized Family Service Plan (IFSP) as well as ongoing changes to the plan will be done with the family. Families have a decision-making role as members of the intervention team. The team will determine who will be involved in the program, when services will take place and what will be the focus of the services. Families will determine how they will be involved in implementing their child's IFSP. Even though the intervention may have specific techniques and strategies; they are incorporated into the daily activities and routines of each family. It is not possible for families to assign the process of "treating" ASD to the early intervention staff. Research on child development has shown that toddlers do almost all of their learning during early intervention visits as they interact with their caregivers in a variety of social and physical environments.

Principle 3: Children with ASD require intensive engagement.

By the very nature of the disorder, children with ASD spend little of their own time engaged in purposeful, appropriate, goal-directed behaviors. Their tendency is to be either disconnected from their surroundings or fixated on specific aspects of objects or people. This restricts children with ASD from discovering and learning as most children do: through interacting with their environment by observing and imitating. These opportunities may be lost to children with ASD.

Engagement refers to the amount of time a child is attending to and actively interacting with others. This happens during the time that family members, friends, caretakers, and early intervention staff are working with the child. Engagement for very young children with ASD is addressed through a focus on social interactions, play, and communication with trusted adults. Children with ASD typically lack appropriate interaction and play skills, so engagement with a child should specifically address these skills. Children with ASD may engage in self-directed play for periods of time, but their play with toys is seldom like that of children without autism. Simple play with toys (dumping, putting in, pushing/pulling, building, etc.) should be taught.

Social behavior with adults and peers needs to be a focus of intervention as well. This focus usually begins with child-adult interactions, which over time, become child-child interactions. Social play begins when a child plays with a parent or another child using the same materials. This is referred to as parallel play. Engaging with a child to stimulate their interest in the adult is an important step for developing play, social interaction, and communication. This type of engagement (tickle, facial expressions, singing and moving in a way the child likes while gaining, releasing, and regaining eye contact) is crucial for the child's relationship building. Moving into play that is more cooperative requires teaching of skills including turn taking and the use and interpretation of gestures. In order to engage and play effectively with children on the spectrum, it is important to structure the environment for success by defining the space for play, organizing the materials, determining the expectations for the activity, structuring how long the activity will last and how it will end. Teaching routines for play and social activities will help children understand what is expected and how to engage with others.

Most of a child's engaged learning time happens with family members outside of the time that early intervention staff is present. The early intervention staff works with the family as well as with the child to develop ways to keep the child with ASD engaged. The goal of intervention is to increase the amount of time he or she is engaged throughout the day in order to achieve the outcomes identified on the Individualized Family Service Plan (IFSP). The most intensive intervention program is of limited benefit if it does not result in active engagement in the times when the child is not receiving direct services.

There is no research, that we are aware of, that has specifically been done with children in the birth to 3 years age range that shows that specific amount of direct service leads to the best possible outcomes. Existing research emphasizes the importance of engaged time for the child, not the amount of hours of service provided by programs. An intervention plan may provide many hours of service that is in one setting with an interventionist, but is isolated from the child's family, peers, and everyday routines. This may prove to be a less effective plan than one with shorter duration with interventionists, but that provides full participation of family members and caregivers as well as providing supports for their interactions with the child. The research demonstrating the effectiveness of massed trials have been carried out on children older than three. Research about toddler learning styles shows that they are not well equipped to generalize learning from massed trials in teaching settings to other, more natural, settings. This is not to say that low intensity plans are recommended for young children with ASD. Instead, an emphasis on a particular number of hours of direct intervention rather than assuring a comprehensive systematic approach emphasizing communication, social engagement, family involvement, visual structure, and supports, positive behavioral support, and so on, will likely not achieve the optimum outcomes. Very young children, recently identified children, or children exhausted by overexposure to multiple therapies, numerous hours of direct intervention, and constant teaching will not be able to do their best learning; neither will their parents or caregivers. If the intensity of the intervention has the unintended consequence of diverting the child's parents or caregivers from focusing on their role as the child's natural primary teachers, intensive programs may actually impede the rate of developmental progress for the child. Gradual introduction of intensive services, assuring that the child is comfortable with the early interventionists and that the proposed interventions are suitable for the child and family are essential components of building an intensive program. Programs in excess of twenty hours a week are likely to prevent

Very young children, recently identified children, or children exhausted by overexposure to multiple therapies, numerous hours of direct intervention, and constant teaching are not able to do their best learning; neither are their parents or caregivers.

the child from having appropriate opportunities to experience essential learning with family, caregivers, and peers within the context of natural routines and environments.

Consistency is important and the team planning process should strive to assure that intervention will occur on a predictable and routine schedule with attention to the number of environments where intervention occurs, number of hours per day/week, and the number of weeks per year. Based on the child's needs intervention should take place 12 months a year. Service intensity should be based on the needs of the child and family. Intensive engagement takes place across many natural learning environments. This includes the home as well as community settings where the child spends his or her time. Families and early intervention staff must work together as a team to identify ways to expand learning opportunities in a variety of settings and activities that is individually appropriate for a child with ASD and his or her family.

FOCUS OF INTERVENTION FOR BIRTH TO 3

The focus of intervention for a child with ASD should involve concentrated or specialized instruction to address social interaction, play skills, interests, and language, as appropriate. In summary, the focus of intervention for children birth to 3 may be captured in the following six areas of emphasis:

1. Attending to and staying engaged in the environment, especially to other people and learning opportunities.
2. Imitating others, including both verbal and motor imitation. Imitation is seen as a fundamental tool for learning.
3. Initiating interactions with others.
4. Sustaining interactions with others.
5. Using verbal and nonverbal communication such as gestures, vocalizations and words.
6. Engaging in appropriate play with toys, as well as symbolic (pretend) play.

ESSENTIAL COMPONENTS OF INSTRUCTION – PRESCHOOL THROUGH HIGH SCHOOL

CONSIDERATIONS

This section describes different components of instruction that should be addressed with students with ASD from preschool through high school. It includes an explanation of the unique learning styles and preferences of students with ASD and considerations for creating effective learning environments. This section is best used in conjunction with the remainder of the document because it offers strategies to address skills that form the foundation for learning and underlie all other areas (e.g., attention and imitation). It incorporates information from the other sections and applies it to teaching situations and presents specific techniques to address other areas. The ideas are intended to work within the general curriculum.

Strategies and information in this section can apply not only during the school years but across the lifespan.

DEFINITION OF "CURRICULUM"

John Dewey referred to curriculum as "... a continuous reconstruction, moving from the child's present experience out into that represented by the organized bodies of truth that we will call studies ..." (The Child and the Curriculum, pp. 11-12). Originally, proposed more than one hundred years ago, this definition remains applicable to today's educational challenges. Building on Dewey's main points, curriculum is defined as an organized program of instruction designed by a team of professionals that responds to the changing needs of students and supports them toward independence and lifelong learning. This definition does not refer to a specific methodology, commercial product, or author's invention.

Numerous methods or instructional strategies and related services are specifically designed for use with students with ASD. Professionals may incorporate a variety of approaches into instruction, but it is critical that instruction is:

- Matched to the strengths and needs of the students
- Modified as students change
- Effective in supporting independence and learning
- Aligned with state adopted content standards

LEARNING STYLES OF INDIVIDUALS WITH ASD

Students with ASD have the capacity to learn a variety of concepts and skills; however, because of unique communication and sensory motor processing issues, it is critical that instruction is designed with their individual learning styles and preferences in mind. Learning styles and preferences are based upon:

Student Strengths: Students with ASD may exhibit varied skills (e.g., visual, memory, music). These strengths may dictate a student's most effective mode of learning.

Student Interests: Students with ASD may focus on specific topics of interest. This focus may allow them to develop a unique perspective, a specific skill, or an intense depth of understanding; therefore, it is important to support and expand areas of interest and not extinguish them. Indeed, these interests can lead to meaningful leisure activities and employment outcomes.
Student Motivators: Motivators come from every person's need to derive reward for pursuits and interactions.

Teachers, through instruction, build in assumptions of successful motivators such as grades, praise, stickers, etc. It is important to identify, with the help of family and the student, the motivators that will provide incentives toward learning for a given student. Students with ASD often have unusual motivators that include completion of tasks, sensory-based stimuli, special interests, tactile-based stimuli, pace of activity, etc. Teachers need to understand and tolerate motivators, even if somewhat extraordinary, that will not inhibit the learning environment.

Communication Style: Students with ASD have unique communication abilities and difficulties that may make it difficult for the teacher to recognize the effectiveness of the process. The communication process can be made difficult, because professionals may assume students do not understand and then make conclusions based on student input or non-input. In traditional teaching, students must communicate back understanding to the teacher. Teachers who are most effective in the communication process use multiple strategies simultaneously such as visual, auditory, written, symbolic, etc.

Sensory Motor Processing: Sensory motor proficiency involves taking in information from one's body and the environment through a variety of sensory channels, interpreting/understanding these sensations, and then developing a response to them. Sensory systems include auditory, visual, tactile, proprioceptive, vestibular, olfactory, and gustatory. Students with ASD may rely heavily on one or two sensory channels to compensate for deficits in other modalities. Preferences for specific sensory systems may, therefore, result in learning styles that are different from those of typically developing peers. For example, to be successful, students with ASD may need to pair a motor activity with learning new material such as isometric exercises paired with multiplication tables.

Pattern of Skill Development: The premise of instruction is to teach in a sequential pattern of skill development. Students with ASD may have highly developed skills in one area and be delayed in others. Professionals should not assume that with a highly developed skill there are not gaps in learning. Teachers may need to teach holistically rather than sequential levels. Learning need not be linear to be understood.

Social Understanding: This refers to the ability to read social cues, the context of those clues, and then behave/respond accordingly. Typically, social situations are often very stressful for students with ASD. Teaching techniques that rely on social situations may cause stress because of their reliance on social relationships. Students may have an inability to participate appropriately in the context of class discussions.

TWICE EXCEPTIONAL

A subset of students with ASD are be labeled as twice exceptional. Twice-exceptional children are those children who are identified as having a disability such as ASD, Asperger's Syndrome, ADHD, a physical disability, a sensory disability, or a specific learning disability and yet are also identified as being gifted or talented (Colorado Department of Education, 2009). These children may be gifted and talented in one or more areas of exceptionality. Possible areas of exceptionality include specific academics like mathematics, science, or social studies, leadership, creativity, general intellectual ability, and visual or performing arts (Colorado Department of Education, 2009). However, without the proper interventions, these children's success can be greatly hindered. King (as cited in Heward, 2009) recommends that teachers support the social and emotional needs of twice-exceptional students by doing the following:

- Foster clear understanding of students' disabilities as well as their strengths to promote self-understanding and self-acceptance.
- Encourage students to succeed, and enlist support of parents and other teachers in this endeavor.
- Teach coping strategies to use when students become frustrated.
- If needed, encourage counseling to monitor each student's emotions that accompany frustration and perceived failures.
- Think of these children not only as having a disability or as being gifted but as having individual needs.
- Provide support in establishing and maintaining social relationships.
- Ensure parents' understanding of their child's giftedness and disabilities, emphasizing the child's potential.
- Support students with future goals and career planning; make sure students are aware of their potential and encourage them not to sell themselves short.
- Provide a mentorship with an adult who is also gifted/learning disabled.

Twice-exceptional students often receive special education services but do not receive adequate gifted services. Therefore, a dual-differentiated curriculum has been suggested as an appropriate education for twice-exceptional students. "A dual differentiated curriculum is responsive to the academic, behavioral and/or social-emotional needs of each learner" (Campanelli & Ericson, 2007, p. 88). "According to Baum, Cooper, and Neu (2001), dual differentiation creates a balance between nurturing a child's strengths and compensating for learning deficits. They describe a dual differentiated curriculum as being centered on authentic learning experiences and authentic assessment, where students set goals, work on relevant issues and share their research with real audiences" (as cited in Campanelli & Ericson, 2007, p. 88-89).

Instructional strategies for students with ASD should be based on student learning styles and preferences, and should take into consideration and capitalize upon the individual aspects of those learning styles and preferences.

ISSUES OF ASSESSMENT

The purpose of assessment is to determine eligibility for special education under the Individuals with Disabilities Education Improvement Act (IDEIA) and to develop instruction appropriate for the needs of each student. Federal and state guidelines require assessment in the following domains:

- Information Provided by Parent
- General Intelligence
- Academic Skills
- Classroom-Based Evaluations and Progress in the General Curriculum
- Data from Interventions
- Communicative Status
- Vision
- Hearing
- Social Emotional Status
- Physical Examination/General Health
- Vocational/Transition (age 14 years of age and older)
- Background History

- Adapted Behavior
- Fine Motor
- Gross Motor
- Other Areas of Consideration, including Behavior Assessment, Assistive Technology Needs, Structured Observations

In addition, assessments of students with ASD must address areas of strengths, interests, and sensory motor abilities in order to get valid information on which to base instructional strategies. Emphasis on these additional areas will facilitate the assessment process itself and provide critical information for developing the student's educational program. Assessments, whether ongoing or part of a multifactored evaluation (MFE), must take into consideration the unique learning style and preference of the person with ASD (see section on Learning Styles and Preferences of Students with ASD). Results of assessments/evaluations in the above areas may be obtained from standardized, norm-referenced tests, criterion-referenced assessments, curriculum-based assessments, and structured interviews. Norm-referenced tests may have limited usefulness in designing interventions to address individual academic achievement and functional performance, however. Regardless of the tools used, person(s) conducting the assessments/evaluations must have a firm understanding of ASD in order for the results to be valid.

Elements that will help to optimize the results of the assessment/evaluation process for students with ASD include familiarity with the student, shorter test periods over multiple sessions, advance notice to student prior to testing (e.g., may provide the student with a Social StoryTM to prepare the student for testing), and sensory motor preparation for optimal level of alertness.

(For more information, reference the IDEA Partnerships Council for Exceptional Children (CEC). (2000). Making Assessment Accommodations: A Toolkit for Educators (Document #P5376).
Also reference the sections in this document on Communication, Sensory Motor Processing, Functional Analysis of Behavior and Behavior Interventions, and Community Transition.)

ASPECTS OF A LEARNING ENVIRONMENT

Any instruction must be unique and specific to the needs of the student. Also, instruction must include a carefully planned environment and setting that is predictable, structured, and appropriate for the sensory motor needs of the student. Structured and unstructured environments, including the general education classroom, special education classroom, specials (art, music, physical education) classrooms, cafeteria, playground, community, and home, must be engineered to support the degree and type of structure by implementing environmental accommodations and modifications that the student requires. (See sections on Communication, Sensory Motor Processing, Predictability & Structure, and Generalization of Skills.)

Learning and behavior may be enhanced by modifications in the physical space that include controlling visual or sound distractions, temperature adjustments, preferential seating, and visual organization of material, and an auditory amplifier. (See Functional Behavior Assessment and Behavioral Intervention Plans.) Evaluate the classroom structure against the student's unique and specific needs (flexible structure, firm and consistent expectations and limits, etc.). To learn more about accommodations, check School Accommodations and Modifications: Oct 31, 2001 available from www.Fape.org/pubs/FAPE-27.pdf .

FOCUS OF INTERVENTION – ALL AGES

Federal and state laws require that all students have access to, and make progress in, the general curriculum. However, the instruction must be meaningful, purposeful, and age appropriate for the student. The student with ASD will have specific goals and objectives that need to be addressed in order to participate and progress in the general education curriculum.

The following areas have been found to increase the student's ability to benefit from the educational experience and become more competent and independent adults.

ATTENTION

Purpose – Increase awareness of others, develop appropriate learning processes, establish attention to critical task stimuli, and reduce over-selective attention

Target Areas:

- Acknowledgment of external world
- Sustained attention (attending on a regular basis)
- Saliency (looking at what is important)
- Joint attention (attending with people)
- Attention shifting (flexibility in attending) event-to-event, object to object, object to person, and person to object

IMITATION

Purpose – Prepare for learning complex skills, enable observational learning from peers, and build reciprocal interaction

Target Areas:

- Prerequisite to imitative learning is that it must be purposeful and independent
- Attention to model: Imitation of movements, vocalizations, verbalizations, and gestures

COMMUNICATION

Purpose – Establish verbal or augmented communication skills; enhance social interaction as an initiator and responder; enhance comprehension of events and persons in the environment; provide appropriate alternatives to challenging behaviors with one to two backup systems

Target Areas:

- Use and comprehend nonverbal communication (gestures, gaze and facial postures)
- Use and comprehend primary vocabulary and simple sentence structures
- Use and comprehend grammatical-parts of speech
- Use and comprehend combined/multiple communicative means
- Use communicative means for a variety of reasons (request, protest, comment, repair, etc.)
- Use echolalia functionally
- Increase use of spontaneous language
- Continued vocabulary building, comprehension and use

SOCIALIZATION

Purpose – Development of social competence; develop or enhance capacity for meaningful social contact with others

Target Areas:

- Intentional and systematic introduction to social situations with the ability to initiate and respond

- Turn-taking – includes verbal, nonverbal, and activity related action
- Adult-child, child-child, and adult-adult interactions
- Sharing
- Ability to give help and accept help
- Choice-making
- Understanding other person's emotions and perspectives ("Theory of Mind")

COGNITION

Purpose – Enhance conceptual, problem-solving, and academic performance and executive function (flexible, strategic plan of action to solve a problem or attain a future goal)

Target Areas:

- Utilization of multiple modes of learning (e.g., sorting, matching, classifying, problem-solving, categorizing, comparisons, ordinals, sequencing, temporal understanding, spatial understanding)
- Understanding cause/effect
- Abstract thinking
- Humor
- Applying and generalizing skills and information

PURPOSEFUL PLAY/RECREATION/LEISURE

Purpose – Enhance cognitive, social and motor skills; enhance relationships between self, others, and environment, and improve appropriate use of unstructured time

Target Areas:

- Intentional and systematic introduction of a variety of play and leisure skills
- Interaction/cooperation with peers
- Leisure including toys, games, sports, hobbies, creative arts (drama, music, writing, arts and crafts)
- Developing life long leisure/recreation skills and practices

ESSENTIAL LIFE SKILLS

Purpose – Increase personal independence and create opportunities for greater community participation in all areas of life including independent living, employment, leisure /recreation, and education

Target Areas:

- Transitioning within and between daily activities
- Functional or daily living skills such as toileting, dressing, food preparation, eating, transportation/mobility, shopping, cleaning
- Personal hygiene and health
- Safety in community
- Managing environmental stressors
- Effective communication system for basic needs
- Self-determination/ self-advocacy/ self-respect
- Respecting others' rights and property
- Goal-oriented: Productivity and completion of task or activity
- Flexibility: Ability to accept change within schedule or task
- Generalization of skills and knowledge to other environments, people, etc.

ADDITIONAL FOCUS AREAS - AGES 6 THROUGH 21

In addition to the above areas, the following areas should be included in programs for students, ages 6 though 26.

TRANSITION (See From High School to Adulthood section)

Purpose – Facilitate integration of the student into the community in terms of employment/career, post secondary education/training, independent living (including leisure and recreation)

Target Areas:

- Exploration of areas of interests, preferences, and strengths while identifying areas of need
- Identification of specific post-school goals in the areas of employment/career, postsecondary education training, and independent living based on interests and strengths
- Development of skills and knowledge for individual post-school goals
- Generalization of learned skills and knowledge to the targeted adult environments

SEXUALITY

Purpose – Assist the individual to understand and express sexuality in an appropriate and safe manner (avoid being victimized)

Target Areas:

- Acquire skills such as personal space, turn taking, reciprocity, and conversational skills that assist in the development of friendship
- Promote skills that develop and maintain different types of relationships
- Develop personal health and hygiene
- Develop understanding of concepts of "public" and "private"
- Reinforce information/skills that assist in protecting from victimization (i.e., sexual abuse)
- Understand physical changes in the body (puberty) and how to manage these changes
- Develop/identify appropriate outlets to express sexuality
- Awareness of personal safety issues related to sexuality (e.g., sexually transmitted diseases/infections and unwanted sexual advances)
- Considerations related to the decision to become sexually active

NOTE: The topic of "challenging behavior" has not been included as a Focus Area. Challenging behavior occurs due to skill deficits or an ineffective support system. Addressing challenging or interfering behaviors requires the development of functional skills as replacements. Therefore, issues related to behavior have been embedded into each focus area through targeted skill development. When behavior is a concern, the first step is to analyze the context in which the behavior occurs through the Functional Behavioral Assessment Process (see page 45 and Appendix III).

References:

Campanelli, J., & Ericson, C. (2007). *Twice exceptional guide: Preparing Ohio schools to close the achievement gap for gifted students with disabilities*. Retrieved from http://www.ode.state.oh.us

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TRANSITION PLANNING THROUGHOUT THE YEARS

The following transition planning table offers guidance to address transition planning from preschool through high school. The structure of the table provides an overview of characteristics of ASD, followed by general programming implications related to preparing for adult life and finally examples of activities or supports that lead to goal development. This is not intended to be an exhaustive list and should be considered a place to begin when preparing for transition to adulthood.

TRANSITIONAL PLANNING TABLE

Grades	Characteristics of ASD	Programming Implications	Examples of Activities, Supports, or Goals
Preschool (eligibility required- age 3 to age 6)	• Lack of speech • Lack of receptive & expressive language • Repetitive and ritualistic behaviors • Sensory issues • Lack of social understanding • Difficulty understanding cues and accepting assistance from adults • Difficulty learning and retaining new concepts • May not respond to his/her name • Lack of imagination and imitation skills • Amplified emotions	• Promote flexible thinking - Clearly identify and help recognize antecedents to problem behaviors - Introduce and teach self monitoring strategies - Introduce simple problem solving (ex: I cannot reach the toy, I ask for help) • Develop functional communication - Provide communication system to request, make choices and indicate a negative (“no”) - Introduce common figures of speech (“raining cats and dog”, “I will just die if this does not work”) - Assist in recognizing immediate surroundings • Teach and support play skills - Teach imitation - Promote pretend play - Teach and support play with toys as intended to be used - Teach turn taking, including initiation of play - Consider need for occupational and physical therapies.	• Label objects and people in the environment • Explicitly teach and practice rules and routines of daycare and preschool environments • Provide a schedule of stops for car rides • Provide a schedule of events for a birthday party • Use days of the week, calendars • Teach standing in line. For example: in hall, in classroom, in cafeteria • Replace repetitive play behaviors with functional/typical play routines • Teach one- to two-step directions using visual supports for predictable and common situations
Primary K through 5 (ages 6-11)	• Sensory sensitivity to classroom environment (sounds, smells, sights) • Difficulty following a schedule or routines • Trouble transitioning from one school environment to another • Trouble transitioning from one activity to another • Difficulty communicating needs (especially verbally) • Lacks interest in typical school activities • Problem behaviors may arise due to unclear expectations • Unable to manage downtime	• Promote early employability/vocational skills development. Begin development of - Personal responsibility - Self-esteem - Positive work habits - Decision making and problem solving - Interests, Strengths and Preferences - Sustainable leisure activities - Self-regulation/self monitoring - Self-determination – to include an awareness of disability as it relates to learning style and needed support as well as abilities, strengths and talents • Provide behavior supports and skill building by continued development of - Social skills and social competence in terms of what is socially acceptable for the current and future environments - Communication skills - Respect for others - Awareness of antecedents to problem behaviors • Foster a sense of belonging as part of a group - Promote participation in community activities - Provide exposure to a variety of jobs/careers - Facilitate inclusion in school activities	• Activities that explore the community - Career awareness field trips - Tours of local employment sources like farms, factories, and stores. - Locations and usage of a library. • Use of communication and social skills within a functional environment - Communicate with PECS, augmentative communication device, sign language in community environments and activities - Use mode of communication to order food at a restaurant or request an item to be purchased - Practice respect of personal space • Embed into curriculum and curricular activities - Opportunities for taking personal responsibility - Discussions related to careers as part of curricular activities - Work sample activities - Exploration of technology - Inclusion activities: choir, girl/boy scouts, sports, band, book clubs, etc. • Strategies/Approaches to consider: - Positive behavioral supports approach - Five-Point Scale by Kari Dunn Burown - Visual supports such as visual schedules/visual routines, calendars of community events, maps of familiar community places - Structured recess

Middle school 6-8 (ages 12-14)	• Difficulty maintaining previously learned skills • Difficulty generalizing or transferring learned skills across school, home, and community • Difficulty connecting concepts or events • Difficulty understanding and using age-appropriate social skills • Difficulty identifying and using effective self-regulating behaviors • Continued communication challenges – verbal and nonverbal • Difficulty with independent use of adaptive skills • Difficulty explaining own behavioral challenges and characteristics	• Planning for adult life – Identify future plans prior to moving to high school • Identify careers of interest and corresponding/supportive courses of study for high school. Understand interests, aptitudes, and preferences • Explore and identify preferences for future work, education, independent living, and community participation • Survey transition needs in the areas of employability skills, study/work habits, time management, organization, decision-making and problem-solving • Maintain supports and services that allow student to remember, connect, and use previously learned skills and knowledge. Areas of particular concern include communication, socialization, and adaptive behavior • Use future plans/vision to focus the course of study and corresponding activities	Ensure assessment of and corresponding instruction in the following areas: • Employability skills • Self-determination and self-advocacy • Assistive technology and other types of technology (such as computers) • Mobility training • Functional vocational skills and abilities assessment • Daily living skills (including hygiene, food preparation, safety) • Social competencies (including friendship to intimate relationships) • Interests, preferences, strengths • Adaptive behavior • Sensory processing related to predicted postschool plans Include activities such as: • Career counseling and guidance • Research of technical schools, colleges. and requirements for entry and completion of a variety of careers/programs • Attending career fairs (with support as necessary) • Job shadowing (with appropriate supports in place) • Job opportunities inside the school • The use of Ohio Career Information System (OCIS) • Experience and instruction with computer applications

High school 9-10 (secondary) (Ages 15-16)	• Difficulty maintaining previously learned skills • Difficulty generalizing learned skills across school, home, and community • Difficulty connecting concepts or events • Difficulty using age-appropriate social skills • Difficulty identifying and using effective self-regulating behaviors • Continued communication challenges, verbal and nonverbal • Difficulty with independent use of adaptive skills • Difficulty explaining own behavioral challenges and characteristics	Preparing for employment • Ongoing age-appropriate transition assessments to support career choices and course of study. Select tools/methods aligned with individual needs, preferences, interests, and skills. • Development of postsecondary employment goals • Authentic experiences for vocational/career development embedded as part of course of study Preparing for Postsecondary Education • Ongoing age-appropriate transition assessments to develop a course of study that prepares the student for postsecondary education. Select tools/methods aligned with individual needs, preferences, interests, and skills • Development of postsecondary education goals, including education in life skills if appropriate Preparing for Independent Living • Ongoing age-appropriate transition assessments to develop a course of study that prepares the student for independent living. Select tools/methods aligned with individual needs, preferences, interests, and skills. Assess area of independent living for all students, regardless of functioning level • Development of postsecondary independent living goals, including goals for living in dorms, interpersonal skills with coworkers, safety, and the "hidden curriculum" • Independent living goals can include recreation/leisure Programming should include the development of self-determination skills across all environments and areas of instruction/learning.	Examples for Preparing for Employment • Job shadowing • Work experiences • Volunteering • Learning to use public transportation Examples for Preparing for Postsecondary Education/Training • College prep classes/advanced placement classes • Learning to understand disability and how to request needed accommodations (i.e., disclosure) • Exploration of colleges/programs that support career choice in order to understand requirements and determine if a potential "match" for student Examples for Preparing for Independent Living • Acquiring community memberships such as YMCA, community centers • Participating in extracurricular activities • Practicing advocacy skills and student-directed IEP • Learning to prepare nutritious meals • Practicing money management, purchasing, budgeting • Obtain state ID

High school (grades 11-1; secondary) ages 17-22 or when exiting high school	• Difficulty understanding and accepting transitions, such as graduation from high school • Difficulty generalizing, transferring, and maintaining skills learned in high school to work and community • Difficulty connecting concepts • Challenges in social competency. Difficulty understanding and using age-appropriate social skills • Difficulty communicating needs, thoughts, emotions, etc. • Difficulty identifying and using effective self-regulating behaviors • Difficulty with independent use of adaptive skills • Difficulty explaining own behavioral challenges and characteristics	*All educational programming for students in their final years of high school should align with and support postsecondary goals in the areas of employment, education, and independent living. For students with ASD, this includes a significant focus on the use of social competencies, problem-solving, self-determination, and linkages with the next (adult) environments. These areas may not be repeated in each area listed below but should be included in planning of each area.* Preparing for Employment • Ongoing age-appropriate transition assessments to support career choices • Refinement of postsecondary employment goals • Close alignment of the experiences for vocational/career development and the individual career/employment goal • Linkages with Department of Developmental Disabilities, Vocational Rehabilitation Services, Jobs and Family Services, employers, and others that will support adult employment Preparing for Postsecondary Education • Ongoing age-appropriate transition assessments to prepare the student for postsecondary education • Refine and narrow the postsecondary education goals, including the specific college, school, or program student wishes to attend • Linkages with Disability Services on college campus, possibly Vocational Rehabilitation Services and others that will support the student through postsecondary education Preparing for Independent Living • Ongoing age-appropriate transition assessments to prepare the student for independent living and community participation • Prioritization of the skills needed for successful postsecondary community living and participation • Development of self-determination skills across all environments and areas of instruction/learning • Information on age of majority and rights transfer • Linkages with Department of Developmental Disabilities and other adult independent living agencies and organizations that can support the student in independent living and community participation after high school	Examples for Preparing for Employment • Job experiences in the career of choice • Resume development and interview skills and plans • Applying for adult service assistance in employment • Paid work experiences • Securing employment before leaving high school • Development of PASS Plan or use of impairment-related work experience procedures to implement with employment to protect benefits • Meeting with adult service agency representatives to review/refine plan for transition to employment Examples for Preparing for Postsecondary Education/Training • Narrow exploration of colleges/programs that support career choice and determine those that are a potential “match” for student • Applying for college/postsecondary program • Auditing a college course • Visit to the college campuses of choice – staying in dorms • Expanding understanding of disability, including how to disclose and to whom • Development of a specific accommodations plan to use in college • Understanding and implementing procedures to request accommodations in college/program of choice • Applying for tuition assistance/grants • Meeting with Disability Services representative to discuss accommodations plan Examples for Preparing for Independent Living • Expanding scope of student’s role in student-directed IEP • Applying for adult service assistance for independent living and community participation (Department of DD, Social Security/SSI, Medicaid, etc.) • Visiting a variety of residential options that align with student plans for adult living • Exploration of assistive technology to determine if use of technology could enhance independence in community and adult living • Gaining a driver’s license or confirming transportation plans • Registering to vote • Providing parents with information on wills, trusts, and other financial planning information • Meeting with adult service agency representatives to refine and outline plan for transition to adult living

ESSENTIAL COMPONENTS OF AN INSTRUCTIONAL PROGRAM

There have been considerable advances in the identification of promising and evidence-based practices and interventions for addressing the needs of individuals with autism spectrum disorders. OCALI was established to serve as a clearinghouse of information for parents and professionals and provide training and technical assistance in the use of evidence-based practices. In addition, the National Professional Development Center on Autism Spectrum Disorders (NPDCASD) was established to identify and promote the use of these practices throughout the nation. Both organizations provide a wealth of information for parents and professionals on their respective websites (see Webliography, Appendix IX).

OCALI and NPDCASD, as well as many others, recognized the need for comprehensive, systematic educational planning and implementation as the core of an intervention program. A variety of tools and resources are now available to assist in the design of effective programs for individuals with ASD. However, certain aspects must be present regardless of the model or approach. For example, a comprehensive program should be grounded in recognition of the characteristics of the individual learner and should provide a method of assessment to identify those characteristics, including how they will affect the individual's learning style. Effective programs use interventions that are individually designed for a given student and are based on student strengths while supports and instruction are designed to address individual challenges. Data collection, assessment, and program modification are ongoing efforts in any effective program model.

Key Areas:

- **Earliest Intervention**
- **Intensity**
- **Predictability and Structure**
- **Generalization**
- **Functional Analysis of Behavior**
- **Communication**
- **Assistive Technology**
- **Sensory Motor Processing**
- **Social Development**
- **Integration with Typical Peers**
- **Assessment of Progress**
- **Transition**
- **Sexuality**
- **Lifelong Support**

Comprehensive programs must address the following critical areas of program design: earliest intervention, intensity, predictability and structure, generalization, functional analysis of behavior, communication, assistive technology, sensory motor processing, social development, integration with typical peers, assessment of progress, transition, sexuality, and independent living skills. Several tools for comprehensive program design are included in Appendix V. These tools provide a framework for guiding the implementation of strategies and supports throughout the student's day and across environments.

The purpose of the following section is to provide educators, administrators, students, and families with a framework and structure for program development and evaluation.

EARLIEST INTERVENTION

The standard "earlier is better" may serve as a particular advantage for children with ASD (Lovaas, 1987; Krantz & McClannahan, 1993). This point was strongly emphasized in the National Research Council (NRC, 2001) report by the Committee on Educational Interventions for Children with Autism. This report is extremely comprehensive when it comes to addressing such areas as diagnosis and assessment, characteristics of effective interventions, instructional strategies, and the policy, legal, and research context. However, while earliest intervention is ideal, identifying and diagnosing ASD at any age allows professionals and families to address the challenges associated with ASD and develop an effective program. Most educators and families agree with the position that intervention programs are more effective when begun at the earliest age possible.

Services provided in these programs achieve the following outcomes for students with ASD and their families:

- Provide the opportunity to intervene to minimize the development of interfering behaviors and/or secondary disabilities.
- Facilitate gains in attention, imitation, communication, socialization, cognition, leisure skills, work skills, and other essential life skills.
- Help support the positive development of a student with ASD, establish social networks, and reduce family stress.
- Strengthen skills necessary for independence and decrease the likelihood of social dependence.
- Teach functional communication strategies.
- Reduce societal costs for services that will be needed later in life.
- Include the family and, where feasible, the student with ASD in intervention planning and implementation to promote generalization and maintenance of skills.

INTENSITY

Although the duration of intervention (e.g., number of hours per day or per week) and number of contexts (e.g., home, school, community) encourages the debate of what constitutes sufficient intensity, it is widely agreed that more intense quality intervention generally results in better outcomes and that the intensity of interventions is determined by the unique needs of each family and student. The National Research Council report by the Committee on Educational Interventions for Children with Autism provides an excellent description of the need for an intense level of services (2001, p. 220).

The following general suggestions may be used to guide decision-making:

- Assess the student's needs for year round intervention programming across contexts.
- Assess the need for individual vs. group programming.
- Focus on assessment-driven individualized programming and instruction based on empirically validated methodologies visit http://autismpdc.fpg.unc.edu/ for more information.
- Assess student and family's strengths and needs in regards to programming.
- Stress ongoing support and staff development for teachers, support staff, and related services working with children with ASD.
- Provide children with ASD continuity of programming across providers and settings as agreed upon in the IEP or IFSP.
- Recognize that effective intervention for ASD requires ongoing assessment and ongoing individualized programming throughout the child's educational experience.

PREDICTABILITY AND STRUCTURE

Children with ASD benefit from an environment that incorporates a structured program tailored to meet their individualized needs. A thorough structure also enables professionals to remain aware of daily events that may create stressful situations for the child. Professionals and families must collaborate to develop effective goals and objectives to create an environment that promotes continuity, cohesion, and consistency to best meet child needs and enhance independence. Uniform and comprehensive training of these transdisciplinary teams must be ongoing and consistent to support successful educational programming.

To provide the necessary organization in the educational setting, the following components are critical in terms of predictability and structure:

Teaching the concept of "time" and the passage of time

- Use calendars.
- Create visual daily schedules (to prepare in advance for regular and unexpected changes in routine).
- Pair routines, activities, and transitions utilizing an analog clock and/or visual timers.

Considering the functional and organizational layout of the environment

- Provide a safe environment (e.g., adult/child-student ratio, exit doors, arrangement of furniture).
- Visually identify all areas of the room (using pictures and/or words).
- Use natural boundaries, such as desks, files, and partitions, to create specific areas.
- Clearly define and visually represent rules of the classroom.
- Use environmental modifications to help manage and tolerate sensory stimuli.
- (Reference Sensory Motor Processing section.)

Utilizing materials that enhance play, leisure, academic, and vocational activities

- Use hands-on materials and manipulatives.
- Use assistive technology (computers, augmentative devices, switches, assistive listening devices, calculators, etc.).
- Use multiple modalities (e.g., visual, auditory, tactile) to provide information and structure.

Teaching social skills to develop environmental awareness

- Visually represent and emphasize rules of the classroom.
- Teach social awareness using social skill development activities.
- Teach the child the "hidden curriculum" (i.e., unwritten social rules and behaviors).
- Teach the child "perspective taking/theory of the mind" (i.e., ability to determine mental states of others in order to explain or predict behavior (Charlop-Christy, 2003).
- Teach the child how to read others' "body language" and gestures.
- Teach the child to understand and appreciate empathy and humor.
- Teach the child to recognize and respond to situations where emotions are expressed.

GENERALIZATION OF SKILLS

Typically developing young children learn incidentally from activities and people in their environment and generalize these observed skills with minimal effort. For children with ASD, however, it is difficult to utilize a particular learned or observed skill in another setting. They do not necessarily demonstrate or imitate observed behaviors and may not understand that a "skill" learned in isolation can and should be generalized in other environments. For this reason, programming to strengthen the child's ability to generalize has long been recognized as a critical component of interventions for children with ASD.

The need for generalization should be considered across a variety of circumstances (e.g., across time, settings, persons, and behaviors). Time refers to maintaining the use of a learned skill in future situations after the teaching process has stopped. Across settings refers to the use of a learned skill in settings outside the teaching environment. Persons refers to the use of a learned skill with and without the individual who taught the skill and that the skill can be demonstrated with others. Generalization across behaviors refers to changes in untaught skills that are related to the skill being taught (e.g., teaching an student to say "Hi" not only increases the use of that word upon greeting someone, but also increases other greeting behaviors such as waving, making eye contact, etc.). These forms of generalization must be considered in any program designed to teach new skills to a student with ASD, and specific strategies to promote generalization must be incorporated into the teaching process.

Some children, however, over-generalize, which is an over-application of a concept (product of over-selectivity). For example, if they determine that the critical feature of an animal is four legs and do not identify with the other features unique to the animal, the student will assume that all four-legged creatures are the same animal.

The following teaching strategies may be used to assist in fostering generalization:

- Skills taught in an instructional environment should lead to naturally occurring, positively rewarding consequences in everyday environments. For example, learning to make a peanut-butter-and-jelly sandwich results in eating an enjoyable snack at its completion.
- Teaching a skill in a variety of situations, settings, or with multiple teachers helps promote generalization of a skill. Thus, teaching of toileting skills in a variety of restroom configurations with several different people assisting can increase the child's ability to use toilets in most community settings.
- Bringing features or common elements of the everyday environment into the teaching situation helps to generalize skill use in that everyday environment. For example, teaching shoe tying using the student's shoes and shoelaces instead of common string or pipe cleaners promotes generalization to the real-world task.
- Once a behavior has been learned to a consistently high level of performance, one can shift to intermittent rewards so that the skill is more resistant to being extinguished if rewards are not given frequently on some occasions in the future.
- Teaching self-management techniques can also be useful for promoting generalization. Self-management involves learning to intrinsically prompt and reward one's behaviors in various situations outside of direct treatment.

FUNCTIONAL ANALYSIS OF BEHAVIOR AND BEHAVIOR INTERVENTIONS

This section describes issues related to the behavior of individuals with ASD. It includes descriptions of common behavioral issues and causes. Because behaviors are functional (i.e., they serve a purpose) for the individual, it is important to understand the intent of the behavior before applying an intervention. The section focuses on understanding behavior and intervention strategies that impact on all areas of educational development. Difficulty communicating needs, not understanding expectations, or a negative reaction to the environment, can all contribute to disruptive behavior. Appropriate social behavior is necessary for learning, interacting with peers, and involvement in the community. In our society, behaviors are often only talked about in a negative context. “His behavior is interfering, disruptive, or self-defeating.” It should be noted that persons with ASD may have a dramatically narrower repertoire of behaviors, particularly in social situations. Therefore, efforts to reduce maladaptive behaviors must be offset by equal opportunities to focus on teaching the new, functional, and appropriate behaviors.

BEHAVIORS SERVE A FUNCTION

What some consider disruptive and disturbing behaviors are sometimes manifested by individuals with ASD. It is important to consider that behaviors can be very functional for the individual, yet may result in negative outcomes. Understanding the behaviors of any individual is a complex process. Behaviors vary as a result of internal factors (e.g., emotion, puberty, maturation, aging, nutrition, overall health, sensory sensitivity) as well as external factors (e.g., changes in environment, social pressures, sleep deprivation, behavior of others, and changes in school or personnel). Behaviors such as seeming “non-engaged” or “tuned out” can impact a student’s educational instruction. They may be interpreted as the student “choosing” not to participate or “being lazy.” In reality, the function of the behavior may serve as self-preservation. That it, the student “shuts downs.” This can occur because an individual is overwhelmed by demands he or she is unable to meet. Teachers and caregivers need to view behaviors as an expression of the student’s limited ability to communicate rather than an intentional effort to disrupt.

Teachers and caregivers must view behaviors as communicative rather than an intentional effort to disrupt

It is important to identify the antecedents of a behavior and the consequences that reinforce it. Such information can be used to change the behavior by altering the antecedents and/or the consequences. This operant conditioning approach is often used in combination with other supports and strategies. To better understand the complexities of behaviors and to identify better interventions, one can also use a systematic procedure called Functional Behavior Analysis (or Assessment), which incorporates the operant conditioning approach.

ENCOURAGING POSITIVE BEHAVIOR AND REDUCING INTERFERING BEHAVIORS

The following section on positive behavioral interventions was taken directly from Foundations in Autism Spectrum Disorders: An Online Course (Session 8) from the National Professional Development Center on Autism Spectrum Disorders at the University of North Carolina. For more information please refer to the session website at http://www.fpg.unc.edu/~autismPDC/assets/ASDcourse_files/Session8_reading.pdf

Recently, there has been an increased emphasis on positive behavioral interventions that modify environmental factors to prevent the occurrence of interfering behaviors as well as to teach alternative behaviors when interfering behaviors do occur. In fact, research suggests that for educational interventions to be successful for children and youth with ASD, positive and proactive behaviors must be considered and developed. Positive behavior support (PBS) is a common prevention and intervention approach that has been used with children and youth with interfering behaviors, including those with ASD (Dunlap & Fox, 1999). The primary goal of PBS is to improve the quality of life for children and youth with ASD by expanding their existing behaviors and adjusting the learning environment to prevent interfering behaviors from occurring. Research on PBS has demonstrated that it is effective in reducing interfering behaviors for children and youth with ASD (Bushbacher & Fox, 2003; Carr et al., 1999; Lovanne et al., 2003; NRC, 2001; Turnbull et al., 2002). For more information about PBS, please view the National Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS) website at www.pbis.org.

Positive behavioral interventions, such as PBS, are based upon the principles of applied behavior analysis (ABA). When ABA was first conceptualized in the late 1960s, its primary focus was on what happened after the behavior occurred to reinforce it, rather than on existing conditions in the environment that were eliciting the behavior. As ABA has evolved, researchers have concentrated more on identifying the specific conditions within individuals' environments that trigger the interfering behaviors (NRC, 2001).

Positive behavioral intervention models designed for children and youth with ASD identify specific strategies and environmental modifications that prevent the occurrence of most interfering behaviors based upon what is known about ASD (e.g., core characteristics) and how individuals with ASD learn and process information (Bushbacher & Fox, 2003; NRC; 2001; Wolery, 2000). For instance, many programs for children and youth with ASD now use visual supports to aide in transitions and provide simple instructions with visual cues throughout the day because children and youth with ASD often have receptive language difficulties.

The goal of positive behavioral interventions for individuals with ASD is to prevent and reduce the occurrence of interfering behaviors such as repetitive behaviors and disruptive behaviors through the use of specific instructional strategies and procedures. To implement specific behavioral methods and strategies, a tiered approach is used that gradually increases the nature and intensity of support for individuals with ASD as interfering behaviors become more problematic. With this approach, functional assessment is used to identify possible causes of interfering behaviors as well as the strategies that are implemented within the context of a comprehensive behavioral intervention plan. Through the use of preventative and specialized instructional strategies and approaches, the positive behaviors of individuals with ASD are supported, and interfering behaviors are addressed more effectively.

FUNCTIONAL BEHAVIOR ASSESSMENT (FBA) AND BEHAVIOR INTERVENTION PLANS (BIP)

The premise of a functional behavior assessment (FBA) is that all behavior serves a purpose. That is, behavior is intended to achieve a desired goal or goals. The goal or goals may be escape/avoidance, control (including meeting one's own sensory needs), attention, getting a specific object, and/or an attempt to communicate.

Therefore, the goal of any behavioral intervention program is to teach adaptive behaviors and to prevent the development of unwanted or inappropriate behaviors. Research has shown this to be an effective strategy in individuals with ASD and other developmental disorders. Functional analysis focuses on the "ABCs" of behaviors (antecedent, behavior, consequence) as a means to understand the purpose or function of the behavior. Such analysis facilitates the development of needed skills and, as more functional and socially appropriate behaviors are learned, problem behaviors are reduced or eliminated. The use of behavioral analysis is a mainstay of successful behavioral intervention strategies for individuals with ASD.

Typically, functional analysis proceeds through the following steps:

1. The target behavior (skill to be learned or problem behavior to be eliminated) is defined in terms of observable, measurable behaviors.

2. The behavioral antecedents that are needed for the achievement of a new skill or that can trigger/encourage problem behaviors are identified. Common reasons for the failure to attain a learning goal include absence of foundational skills, lack of understanding of the purpose of the activity, internal or

external distractions, or inadequate reinforcement strategies. Factors that underlie problem behaviors may include absence of adequate communication skills, environmental events that trigger the behavior, and adult responses that inadvertently encourage the unwanted behavior.

3. An intervention to teach a new skill or reduce a problem behavior is developed logically from the information gathered during the functional analysis. The strategy should consider the purpose of the desired skill or the problem behavior, the individual's developmental level, the need for structure and consistency, the intervention setting, and the need for collaboration between parents and professionals in addressing the problem.

4. Consequences that strengthen or weaken the occurrence of the target behavior must be identified. Particular attention must be given to individual differences in reinforcer effectiveness as well as the schedule for the occurrence of the consequence.

5. The impact of the intervention strategy is evaluated through regular reviews of objective data. Interventions are then adjusted or revised accordingly.
   (For detailed information regarding FBA, refer to Appendix III for a 10-step process.)

Behaviors Change over Time

Challenging behaviors that a child demonstrates may decrease or disappear with maturity, or behavioral challenges may become more prevalent due to changing conditions. Sometimes the behaviors an individual exhibits do not change but are perceived differently by others as the individual ages and physically matures. An example of this may be hugging others or acquaintances. This behavior may be viewed as acceptable or tolerable for younger children however as children grow and mature it clearly becomes an inappropriate behavior. It is important that the behavioral history of the individual be well understood by all persons participating in the care and education of the individual. His or her unique reactions to common as well as novel situations and intervention strategies that have been successful are important considerations in designing effective interventions.

Behaviors Require Brainstorming and Teamwork

Successful intervention for challenging behaviors requires that all persons involved with the individual (the team) work together to meet the needs of the individual with ASD. Flexibility is required on the part of all team members to establish and maintain communication with each other and to be consistent in implementing the agreed-upon intervention(s). The team must assess the situation, identify the individual's needs and abilities, and implement strategies to assist the individual in learning and using appropriate behaviors. The process of assessing, teaching, and learning appropriate behaviors sometimes proceeds quickly; in other instances, it may take a long time. Likewise, it might require the involvement of many people and the systematic implementation and testing of a variety of strategies.

There is a dynamic relationship between the educator, parents, other members of the team who are involved, and the person with ASD. Priorities and goals of each person involved contribute both to problems (e.g., lack of unity and different perceptions) and to successes (e.g., cooperation, compromise, and consistency).

Team members must be willing to share resources and express personal limitations. They must be willing to compromise. They must be willing to make the most of the creativity that can exist within the team. In short, they must be prepared to be open-minded and do things differently.

Influences on Behavior

Behaviors are influenced by the characteristics of ASD and by environmental issues. Some behavioral influences include:

Stress/Anxiety: Stress and anxiety are often key factors triggering behaviors characteristic of individuals with ASD. Many worries that lead to stress. Such worries may include changes (or anticipated changes) in schedule, interactions with peers, and pressure to perform. Stressors must be understood, monitored, and controlled with care and respect for the individual's perception and future needs. Children with ASD may view causes of stress differently and have varied reactions to stress. All caregivers/providers must also be aware of and manage their own stress levels. This is particularly important as individuals with ASD experience awareness of and often negative reactions to the stress of others.

Physiological Factors: Challenging behaviors may occur more frequently or intensely when physiological difficulties are present. Physiological factors may include lack of sleep, medication changes, hunger, and illness (chronic or acute). An individual with ASD may not understand why he is experiencing these difficulties and/or may not be able to express these concerns in a functional manner. A functional analysis must be used to assess if these factors are present and their effect on the behavior.

Sensory Sensitivities: Many individuals with ASD present with sensory sensitivities and/or sensory preferences that are very different from those of the typical population. Behaviors may occur when an individual encounters a sensory experience that is unpleasant or painful or if she is under-responsive; that is, not registering sensory experiences in the same way as others. Under- and over-responsiveness to sensory experiences may be auditory, tactile, taste, visual, or others. Additionally, the sensory experiences that trigger a behavior for an individual with ASD may be subtle and generally uneventful for others. At times, simply the anticipation of a certain experience can trigger a behavioral response. The FBA must consider the unique sensory profile of the individual when determining the function of a behavior.

The behavioral responses related to sensory experiences can also appear to fluctuate from day to day and hour to hour. What is overwhelming one day might not have the same effect the next day. Illness, fatigue, stress, and hunger can all impact an individual's response to sensory input. Another thing to keep in mind is that sensory input tends to have a cumulative effect. Thus, it may take numerous sensory experiences to either gain a individual's attention in the case of an under-responsive child or to make the overly responsive individual reach the breaking point. Therefore, the cumulative effect of sensory experiences can make it difficult to determine the exact type of sensory input impacting the child.

SOME COMMON BEHAVIORAL BARRIERS IN ASD

CHALLENGING BEHAVIOR	DEFINITION	EXAMPLE	INTERVENTION	COMMENTS
Ritualistic & Compulsive	Highly repetitious behaviors. Often used to structure time and interests.	Repetitive hand washing. Touching objects.	Intervene early, before the habits are strengthened. Teach meaningful alternatives that are incompatible with ritualized behaviors. (e.g., structure when hand washing should occur; cue stopping with a timer).	Sometimes these rituals are beneficial. Often ritualistic behaviors interfere with appropriate activities and expectations in severe cases. It sometimes takes years to fade a ritualistic behavior.
Impulsivity	Disruptive behaviors resulting from a strong need to do something combined with the lack of social perspective of how behavior impacts others.	Diving to remove a piece of lint from the floor; stealing coffee at the bowling alley; public stripping; sexually motivated behaviors.	Manage environment to limit tendency while systematically teaching the individual to stop, think, and make decision. Use of Social Stories, teaching social skills, and rehearsal of appropriate alternatives.	Impulsive behavior issues may result in compromising the safety of the individual and/or others.
Stereotypic	Behaviors involving physical movements that seem to serve no purpose.	Flapping arms, flicking fingers, rocking, tip-toeing, hand wringing, etc.	1. Have an occupational therapist evaluate. 2. Present sensory alternatives that offer the same sensory benefits but with fewer negative consequences (e.g., swinging, trampoline, squeezing “kush” ball, or play dough). Refer to Sensory Motor Processing.	These behaviors may serve more of a self-regulatory function (e.g., sensory input) rather than a function that is apparent to others. It may also serve as expressing emotions (stress, anxiety, happiness, etc). Teach alternative prosocial behavior.
Aggression	Aggression may be toward self (SIB: self-injurious behavior) or others.	Banging head with hands or against wall; picking skin until it is damaged; targeting individuals to hit or kick.	Analyze stressors in the environment (e.g., schedule changes, noises, irritants) and remove them or structure for comfort and clarity. Redirect harmful behaviors. Offer alternative “rules” or activities.	Persons with ASD often respond to stressors in their environment by acting out towards themselves and/or others. They may lack skills to communicate what is going wrong.
These behaviors may serve more of a self-regulatory function (e.g., sensory input) rather than a function that is apparent to others. It may also serve as expressing emotions (stress, anxiety, happiness, etc). Teach alternative prosocial behavior.				

This represents a sampling of frequently encountered behaviors and suggested strategies. These should not limit other creative alternatives that consider the uniqueness of each individual. The use of a PBS plan should be implemented for positive and desired outcomes.

COMMUNICATION

This section describes the unique patterns of communication associated with individuals with ASD. Included are ideas on how to assess the purpose of communication and strategies for improving communication. This section is best used in conjunction with the remainder of the document because the ability to communicate affects all other areas of learning, socialization, and behavior, which, in turn, are affected by communication abilities. The ability to communicate one's feelings and thoughts to others has a profound effect on quality of life both immediately and long term. Without an effective communication system, it is difficult to navigate through life. In addition to individuals who have obvious communication challenges, many individuals with ASD may only appear to be capable communicators and may not be effective communicators. An example is a child with high functioning autism or Asperger's syndrome may be able to use language fluently but may not be capable of understanding the full meaning of an interaction. This can limit their ability to develop a functional and flexible system of communication.

Communication difficulties, both verbal and nonverbal, are inherent in the diagnosis of ASD. The typical sequence of communication development is disrupted in persons with ASD. Language competence includes learning the sounds and sound patterns of the language forming a predetermined set of words, and learning the rules for putting those words together to form an unlimited number of sentences to express an unlimited number of ideas. Language competence also involves knowing the purpose or reason for using language (i.e., being able to interpret and use language in social contexts). To be a successful communicator, individuals must have knowledge of the language as well as the ability to let someone else know that they want something, that they want to tell someone about an event, that they want to describe an action, that they want to express an emotion, or that they want to acknowledge another person's presence. Communication skills range from nonverbal, gestural, the use of single words to verbal conversation and may include the following communication difficulties: perseveration (repetitive verbal and physical behaviors), echolalia (immediate and/or delayed "echoing" or repetition of words, music, phrases or sentences), hyperlexia (precocious knowledge of letters/words or a highly developed ability to recognize words without full comprehension), and, to a lesser degree, dactolalia (repetition of signs), pronoun reversals, inappropriate responses to yes/no questions, and problems responding to "WH" questions.

When designing appropriate intervention strategies, it is important to understand the individual's receptive (comprehension) and expressive communication skills. Stressful situations that increase anxiety often interfere with the individual's ability to communicate. Difficulty understanding humor, idioms ("keep your eye on the paper"), sarcasm, and other complex forms of verbal and written expression is common. Even the verbal individual with ASD may understand and use literal (concrete) language but have difficulty with abstract concepts. The ability to communicate usually changes over time. Therefore, it is important to maintain an ongoing communication assessment from diagnosis through adulthood as this provides current information necessary to support appropriate communication interventions and strategies.

It is important to understand the individual's unique communication style/skills, which lead to the development of a successful means for communication. Supporting all forms of communication – verbal, signing/gestural, pictorial, augmentative (and often a combination of more than one) promote learning. In addition to the development of an effective communication system, consider use of the following modifications and strategies:

Modifications

- Decrease question asking and increase comments and descriptions of activities, emotions, and environments that the person experiences.
- Make sure the communicative partner fully understands that situations, certain individuals, sensory issues, and stress affect the quality of communication and the communicative intent.
- Modify the speaker's language and provide visual supports if there is no response or undesired response to a direction or question.
- Allow time for the student to make sense of the information and to integrate the context, social intent. and meaning behind verbal and nonverbal messages.
- Develop a protocol to gain the student's attention. The protocol should include how to initiate joint focused attention (i.e., people have a joint focus of attention if they are attending to the same object and are mutually aware of it).

Strategies

- Encourage meaningful imitation. Since imitation is one of the precursors to the development of functional language, build in many opportunities for activities to develop imitative skills.
- Help the individual focus attention on the speaker. This will maximize the impact of any direction, question, or information.
- Determine the communicative intent and other possible functions of nonverbal and verbal behaviors to establish their meaning. For example, if a student hits when frustrated, teach an appropriate behavior that communicates that they are frustrated, reduce the frustration, or both.
- Identify communication opportunities and communication strategies in all daily activities. Teaching communication strategies in a step-by-step approach, starting in an organized environment, will assist generalization to other environments.
- Use vocabulary and grammatical structure at the individual's comprehension level.
- Consider using rhythm and music.
- Teach turn-taking and joint attention. (Joint attention refers to the student's ability to direct another's attention to what he is attending to and following the line of visual regard and gestures of a communication partner.)
- Provide the student with multiple opportunities to initiate interactions, make choices, and have peer-to-peer contact on a daily basis across all environments.
- Recognize and respond to the student's communicative attempts.
- Expect that all students will communicate.
- Arrange the environment to increase the likelihood for communication. For example, use motivating activities and materials; allow materials to be seen but out of reach; provide small or inadequate amounts of materials; provide real and motivating reasons to ask for help; sabotage; provide something that the student doesn't want or like.
- Provide the student with time to respond or to initiate communication and use a least-to-most hierarchy to prompt or cue communication.
- Use descriptive feedback as a natural response to the student's communicative attempt. For example, "Oh, you asked for milk. Here is your milk."
- Consider supporting receptive communication as well as expressive communication through both nonverbal and verbal methods: visual supports (object boards, pictures, gestures, sign language) and voice output communication devices.

- Facilitate the initiation of conversation and provide opportunities to practice language rather than waiting for the individual to initiate contact.
- When transitioning from classes, buildings, work, etc: Offers a summary of successful communication strategies to appropriate personnel.

ASSISTIVE TECHNOLOGY

Assistive technologies are applications (either hardware or systems of application) designed specifically to assist individuals with disabilities in accomplishing tasks that would be difficult or impossible for them to complete otherwise. In compliance with IDEA, schools are responsible for determining what assistive technology(ies) is/are appropriate for a student with a disability in order that the student may receive a free and appropriate public education in the least restrictive environment (LRE). Assistive technology is defined as "… any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities" (Individuals with Disabilities Education Act (IDEA) 20, U.S.C, Ch 33, Section 1401 (25) US). In addition, assistive technology services must be provided to assist an individual with a disability in the selection, acquisition, or use of an assistive technology.

The varied use of technological systems with individuals with ASD has received limited attention even though technology tends to be of high interest for many of these individuals (Stokes, n.d.; Wisconsin Assistive Technology Initiative, 2009). Many individual with ASD are visual learners and more readily comprehend information if presented with visual supports. Verbal instruction alone may not be sufficient for students with ASD to understand the intended communication. Caution should be taken not to limit the consideration of assistive technology to expressive communication. While augmentative communication devices can support a significant "breakthrough" for some individuals with ASD, there are many other ways in which to use technology within an educational program for individuals with ASD. These are categorized as follows:

No-Tech Tools and Strategies

No tangible item or material is involved.

- Clear physical and visual boundaries
- Elimination of extraneous visual stimulation
- Proximity of staff to individual
- Variation of the voice quality/volume used by staff
- Frequent breaks or the opportunity to move around the room
- Using incandescent lighting instead of fluorescent lighting
- Pausing
- Providing models and demonstrations

Low-Tech Tools and Strategies

These require the individual or staff person to utilize an item that typically is not electronic or battery operated. These items are typically low-cost and easy to use.

- Dry-erase boards
- Pencil grips
- Raised line writing paper
- Calendars

- Universal “no” symbol
- “Go,” “Almost done,” “Stop” cards
- Highlighter tape
- Clipboards
- Three-ring binders
- Picture symbol cards
- Choice board (no voice output)
- Ear plugs
- Use of a pointer
- Visual schedules and routines

Mid-Tech Tools and Strategies

These include battery-operated devices or simple electronic devices requiring limited advancements in technology.

- Tape recorder
- Timers
- Flash light
- Label makers
- Overhead projectors
- Time TimerR
- Calculator
- Head phones
- Assistive listening devices
- Portable word processor
- Simple voice output devices
- iPod

High-Tech Tools and Strategies

These complex, typically high-cost, devices require some training for effective use.

- Computer software
- Adaptive computer hardware (touch window, alternative keyboards, etc.)
- Video cameras
- Online learning
- Complex voice output devices
- Interactive whiteboard
- Digital camera
- Scanner
- Personal digital assistant (PDA)

Educational teams must carefully consider the benefits of assistive technology in all aspects of the student’s program. In order to make effective decisions about assistive technology, the IEP team must be knowledgeable of the student’s abilities, needs, curriculum, and environment. Teams should identify how technology may assist the individual not only to effectively communicate but also to progress in the general education curriculum, to access curricular and extracurricular activities, and to make progress on individual IEP goals and objectives.

When considering the assistive technology needs of a student, the IEP team should consider a continuum of assistive technology solutions, ranging from low tech to high tech. Finally, teams should also address the types of assistive technology services that are required. Assistive technology services include, but are not limited to, evaluation, device acquisition, device maintenance and repair, training for the student and his/her family and educators as needed, and technical assistance.

SENSORY MOTOR PROCESSING

This section describes issues in sensory motor processing for students with ASD. It includes a definition and explanation of terminology to provide a common understanding of the issues involved. It also includes practical strategies and guidelines for developing sensory supports in all environments. This section is best used in conjunction with the remainder of the document, because the student's ability to process sensory input from the environment affects all other areas of learning, socialization, and behavior.

Sensory motor processing challenges may limit students' experiences and the environments in which they can function successfully. Identification of strategies to address these challenges can expand the opportunities for relationships, work, and leisure in which students with ASD can effectively participate.

Sensory motor processing involves the ability to take in information from the environment, organize it, make sense of it, and formulate a response. Normally, this happens automatically. When the system is working well, we can screen out unimportant stimuli, pay attention, respond appropriately, and move through the environment fluidly. When the sensory system is not functioning well, we may have difficulty paying attention and formulating responses that make sense. In addition, we may shut down or overreact to incoming stimuli and have difficulty moving safely and freely.

The senses that the brain uses to take in information include the well-known senses of sight, hearing, taste, and smell, and three other systems that are very powerful: the tactile, proprioceptive, and vestibular systems.

The tactile system involves information that comes from contact with the skin. It is comprised of two distinct systems. The protective system tells us when we are in contact with something dangerous and is responsible for the flight, fright, or fight response we sometimes experience, even when lightly touched. The discriminative system allows us to determine where we are being touched and what is touching us. In short, the tactile system helps us to explore and add to our understanding of the various unique characteristics of objects and people.

The proprioceptive system registers where your body is in space through the joints, muscles, and tendons. For example, when you have run or walked on a treadmill for an extended period of time, you may experience a floating sensation when you step off. You may have experience this when stepping off a moving sidewalk at an airport.

The vestibular system assists in balance, coordination, and movement. The receptors for the vestibular system are located in the inner ear and are impacted by changes in the position of the head. For example, after spinning around on a carnival ride you may not be able to walk straight or you may temporarily lose your balance.

It is important to be aware that students with ASD likely have difficulty in one or more of these sensory systems. They may be either over-, under-, or show mixed responsiveness to sensory experiences. For example, sensitivity to sounds, light, touch, or movement can indicate over-responsiveness to sensory experiences. This may be characterized by unexplained emotional outbursts, stereotypic behaviors such as rocking and pacing, or fearful avoidance of contact with people and objects in the environment. In other instances, students may be under-responsive to sensory input. They may appear lethargic and tired, or they may be "on the go" in an attempt to provide themselves with more input to stay alert. They may also have difficulty coordinating motor activities such as running, jumping, climbing, drawing, writing, etc., because their joints are not processing the incoming sensory input to effectively direct skilled motor movements

Other sensory challenges may result in problems surrounding filtering incoming stimuli, organizing the information received through the senses, and developing a response to it. This may be characterized by difficulty directing and shifting attention, maintaining alertness to carry out a task, and executing a sequence of steps to complete a task. Specific strategies for supporting sensory issues must be tailored to the individual student's needs and challenges.

Recommended strategies for working with students who demonstrate over-responsiveness to sensory input include:

- Avoid touching the student without giving a verbal cue first.
- Make boundaries around the student's workspace and establish each student's space as part of the classroom rules, using carpet squares, masking tape or furniture.
- If the student needs to be touched, use a firm but kind touch, rather than a light tap.
- Decrease the amount of visual and auditory distractions in the room.
- Provide structure and predictability.
- Provide additional support during transitions between lessons and between places in the building.

Recommended strategies for working with students who demonstrate under-responsiveness to sensory input include:

- Provide frequent opportunities for movement breaks throughout the day.
- Gain the student's attention by providing variation in tone and tempo of your speech before providing directions. It may be necessary to provide the directions several times and in different ways.
- Provide "fidget" objects during structured instruction or during times when the student needs to wait for a transition.
- Monitor students' play with others. They may not recognize when they are playing too rough with other children.
- Provide visual boundaries to assist students in recognizing where their personal space ends and another's might begin.

The following suggestions serve as guidelines for developing sensory supports in all environments:

- Determine student's tolerance/comfort with input from various sensory channels.
- Identify behavioral indicators of excessive stimulation (e.g., covering ears or eyes with hands, body rocking, hand flapping, withdrawing).
- Conduct an environmental assessment to identify problem stimuli (e.g., lighting, noise, odors, textures, and limitation of personal space).

- Proactively modify the environment to accommodate sensory motor processing needs (e.g., reduce noise with sound-absorbing materials, keep visual stimuli to a minimum, create study carrels and clear boundaries for work areas).
- Determine the need for appropriate sensory input throughout the day (e.g., deep pressure, movement, and materials to manipulate during instruction or work time).
- Provide opportunities for heavy work (e.g., activities requiring exertion) throughout the day.
- Examples include stacking/unstacking, pushing carts/trash cans, holding doors, washing chalkboards, crushing aluminum cans for recycling, and sweeping floors).
- Provide access to suspended equipment (e.g., swing in corner of classroom or gym) if indicated.
- Incorporate movement activities and manipulative materials into instructional time and provide breaks for additional physical activities and/or sensory input as needed (e.g., exercises, walks, mini-trampoline).
- Schedule regular "sensory breaks" during the day as needed. Activities during these times may include using hand-held objects that provide vibratory or pressure touch input, movement, or calming music.
- Provide opportunities for the student to indicate a need for strong sensations or access to equipment at times other than what is regularly scheduled as part of the routine.
- Determine environmental/task modifications that may help in reducing the motor challenges facing the student (e.g., desk/chair height, writing utensils, position/type of work materials).
- Allow the student to stand at the chalkboard or an easel to work. Standing provides input into trunk musculature that will help the student stay alert and focused on the task.

A professional who is knowledgeable about sensory motor processing should be consulted for specific strategies for any student. Generally, this professional is an occupational therapist.

SOCIAL DEVELOPMENT

Impaired social development is a cardinal feature of ASD. It ranges from complete indifference to others to atypically social to socially inappropriate. Social development is dependent on other areas of development, especially communication and sensory motor processing. Socialization requires communication skills in order to have successful social interactions and group experiences. In addition, the ability to seek out and enjoy social interaction is dependent on the student's ability to focus on the interaction rather than coping with the environment. Being capable in social situations allows the student to successfully engage in activities such as holding a job, maintaining a living situation and taking care of basic needs as well as improving the quality of life.

Social skills may not generalize without specific training; therefore, it is important that social competence be reinforced in all environments (including the workplace), especially for students who are in transition. Specific strategies and supports for social development and related skills must be provided to students with ASD.

The social deficits in individuals with ASD are influenced by age and severity of impairment. Usually, the deficits are most severe in the young child with variable improvement over time that, in part, is influenced by cognitive potential, underlying etiology, if known, and co-morbid conditions. Social impairment has been defined by Lorna Wing (2002) as:

1. Socially aloof – ignore or avoid social interaction with indifference to peers and limited if any, response to simple stimulation.

2. Socially remote – little spontaneous social interaction with allowance of social approaches and limited passive involvement in activities.

3. Active, but odd – Attempt social approaches to achieve personal goals (needs or area of fascination) with little interest in the needs or responses of others.

4. Superficially social – Utilizes learned social scripts with ongoing deficit in true grasp of social rules and impact of actions.

These classifications are based on clinical observations. From a functional standpoint, they provide a basis for differentiating social impairments and monitoring a student's growth over time.

The lack of social understanding affects all social aspects of work, school, interpersonal relationships, recreation, and community involvement that play a part in the building of self-esteem. Social skills may not generalize without specific training; therefore, it is important that social competence be reinforced in all environments (including the workplace), especially for students who are in transition. Specific strategies and supports for social development and related skills must be provided to students with ASD.

There are several levels to consider when providing social strategies and supports. When assessing the social competence for students with ASD, it is important to look at the quality (content and meaning) of the social interactions vs. the quantity (amount) of social interactions. One student may have difficulty tolerating others in her personal space while others may "get in your face" and talk incessantly on one or two self-interest topics. Supports must be developed based on the strengths and interest of the student. That is, one student may need to learn social skills to initiate social communication in a one-on-one setting with introduction to social situations in small steps whereas another student may need to have a repertoire of social topics to learn how to reciprocate and maintain social communication.

Assessment of social competence should include:
- Age of student
- Sensory motor processing challenges
- Imitation skills
- Receptive and expressive language skills
- Cognitive abilities
- Student's interests and skills
- Environment where socialization occurs

(See Appendix IX – References, and Resources, Social)

When developing social goals, the following areas need to be addressed:
- Imitation and joint attention (attending with others)
- Understanding personal space
- Acceptable environmental behaviors, such as not picking nose in public, bathroom etiquette, etc.
- Emotions of self and others
- Identification of emotions and where they occur
- How one's actions affect others

- Asking for help/assistance
- Slang, sarcasm, joking, teasing
- Initiating, maintaining, and reciprocating social interactions
- Accepting rejection by peers
- Playing games; winning and losing graciously
- Turn-taking, waiting for turn
- The meaning of body language (includes facial and bodily gestures)
- Age-appropriate behavior with the opposite sex (e.g., recognizing unwanted sexual advances and dealing with them appropriately, understanding appropriate sexual expression and seeking privacy for any sexual expression, finding appropriate ways of seeking and giving affection)
- Typical peers' understanding and successful ways to interact and support the student with ASD
- Appropriate workplace behavior as a part of the transition from school to work. This includes the use of vocational language, how to take work breaks, dealing with the public, and working with superiors, subordinates and work peers. In many cases, the degree to which a person with ASD "fits in" with, and is accepted by, work peers will determine his or her long-term job success. The employer may require assistance with appropriately introducing the person with ASD to the workplace and educating the workers with how to have a meaningful work relation with that person. On the other hand, once acceptance is gained from work peers, the person with ASD often has a very strong, vocal support network, which greatly enhances the probability of long-term job retention and success.

A number of strategies and supports are available to teach appropriate socialization and social understanding. Based on the assessment of social abilities, teaching of these social skills may occur in one-on-one, small-group, large-group or a combination of these teaching environments. Due to generalization issues, a plan should be developed and supported to expand socialization and social understanding into multiple environments.

Several broad categories of strategies and supports to consider include:

- Rehearsal – scripting, modeling, and practice
- Role play
- Social curriculum
- Social skills manuals
- Visual supports
- Peer models
- Structured peer supports

Regardless of the environment used or the strategies selected, instruction in socialization and social understanding must be provided in a well-planned and systematic manner.

INTEGRATION WITH TYPICAL PEERS

(This section is not intended to be used for LRE decisions.)

Models of language and social interactions are an important component of a successful program for individuals with ASD; however, the mere presence of typical peers does not constitute successful social-communicative interactions. Coordinated efforts across school, home, and community environments can assist in promoting natural peer interactions. Families and professionals may focus on the implementation of a variety of strategies in these environments, including activities, routines, and situations to promote peer-peer interactions. When selecting strategies and coordinating a plan to support the individual with ASD in integrated activities, consider the following guidelines:

- Assess the person's individual need for and comfort with integration with typical peers. Provide a natural progression of integration when possible and meaningful (e.g., individual to segregated classroom to small group to large group instruction).
- Plan and schedule activities that promote integration and prevent segregated grouping.
- Remember to consider the level of demand that integration with typical peers may place on the individual when planning for additional teaching/learning demands. Learning to tolerate the proximity and actions of others may take a great deal of learning capacity and reduce the individual's ability to focus on other tasks until he/she is comfortable.
- Continue to emphasize the acquisition of skills that will allow the individual to benefit from integration experiences.
- Include the following in the transition plan: commitment of all team members, assessment of placement options (evaluation of a individual's learning style and teachers' instructional style), skills the individual needs for integration, and training for instructor and support staff.
- Provide specific guidance to peers to recognize and respond to verbal and nonverbal communicative behaviors of the individual with ASD. Include strategies that focus on the peers' ability to initiate, respond to, and maintain social-communicative interactions with the individual.
- Include social learning opportunities such as dealing with rejection, responding to bullying, understanding/responding to hidden rules, and multiple coping strategies for handling stressful social situations.
- Incorporate environmental supports (such as charts, cue cards, directions, computer software) in conjunction with peer models or as alternatives to direct adult support.
- Determine the amount of time the individual should spend in the integrated setting.

ASSESSMENT OF PROGRESS

Assessment is vitally important for determining the effectiveness of any intervention. Progress assessment is especially critical for the population with ASD, because they are resistant to many forms of intervention that are very effective with others. Therefore, interventions used for individuals with ASD should be held to standards of effectiveness and appropriateness that respect the values of parents and professionals to make a difference in the lives of these individuals.

The outcome of any intervention may be assessed in two ways:

Criterion-Referenced – This method is useful when the desired outcome is known and well understood. Using a criterion-referenced approach to evaluating progress tells everyone that effective intervention has occurred when the goal is successfully achieved. In criterion-referenced assessment, the various levels of evaluation must be considered carefully. The overall intervention program or strategy is judged on the basis of the achievement of the entire collection of goals and objectives. Progress on goals is assessed on the basis of achieving the interim objectives leading to their individual completion. Example: Can a child tie his own shoes?

Norm-Referenced or Standardized – Using this approach, intervention can be judged in terms of change in a desired direction from some defined starting point according to some accepted standardized measure.

(It is important to note that individuals with ASD have not been included in the norming process.) This method of progress assessment makes it necessary to define the reference points very carefully. Progress is then determined on the basis of change in some or all of these measures. The minimum number of measures needed is two, once at the start of treatment and once at the end of the evaluation period. Example: Improvement in communication skills over a fixed period of time as measured by the Preschool Language Scale (PLS).

Criterion-referenced and norm-referenced assessments are often combined in practice. Anecdotal observations should be used to support but not replace objective and quantitative data.

TRANSITION

Individuals with ASD typically have difficulty handling even minor transitions and environmental changes in their day-to-day life. These can cause significant behavioral outbursts and regression in learning if they are not negotiated in a planned manner. Transition to a new service system leads to many changes for the individual and family, including changes in service providers, location and, in most cases, service procedures. Considering the potential impact these changes can have on the individual and the family, steps must be taken to make the transition as smooth and problem free as possible.

The following guidelines are helpful for accomplishing successful transition:

- Awareness of the problem and appropriate planning are key to making successful transitions for individuals with ASD. It is important to know when an individual has particular difficulties with transitions and under what circumstances these occur. Some individuals will have difficulty with transitions that involve changing physical locations, some have difficulty with changes in activities, and others have difficulty with transitions among adults and/or other students. Once the circumstance is understood, a plan for supportive, preventive measures can be put in place.
- Individuals with ASD should be informed several times before difficult transitions are made by explaining in terms they understand, when and what the transition will be. The use of a visual schedule, designed to be meaningful for the particular individual (photos, icons, words, objects, or a combination of any of these), is an evidence-based strategy that is designed to assist in predicting scheduled activities and visually portraying both planned and unexpected activities. Major changes in daily schedules should be announced the day before, the morning of, and just before the actual change and displayed on the visual schedule. In addition, providing a "transitional" object or picture helps some individuals. This is usually done with a small object or picture uniquely associated with the next activity or physical location to which the individual is transitioning. For example, a ball typically used at recess and given to the student upon leaving the classroom may ease the transition to the playground as it helps explain where he is going and what he may do there.
- Some individuals have difficulty transitioning from a preferred activity to a less preferred activity. Transition to the less preferred activity may be facilitated by indicating that the person will have an opportunity to return to the preferred activity. Depending on the individual, return to the preferred activity may have to take place immediately or may be delayed. In addition, it is important to clearly explain the expected transition. This may be done verbally, using pictures, written words, or schedules to indicate the activities and in what order the individual will be expected to participate in the activities. As activities are completed, the individual removes them from the schedule. This not only adds predictability to the individual's life but also begins building steps towards early self-management.

- Major transitions such as entering a new classroom with a new teacher present transitional issues for everyone involved (e.g., the student, the family, and the teacher). The teacher should attempt to get to know as much about the student as possible before the transition. This is particularly important for students with ASD, because many teachers have limited experience with ASD. Besides, individuals with ASD vary widely in their educational needs. The family and the student may also need increased supports for making this a successful transition (the planning and resources for this should be available before the transition occurs!). For example, it may be helpful to have the student and parents visit the new classroom and teacher before classes begin. Parents should be given as much information about the new setting and its activities as possible so that they can feel comfortable and prepare the individual more fully for the new expectations.

Early transition planning, which begins by the 14th birthday or earlier, is the key to successful adult outcomes including obtaining a job.

Some students need increased staffing support for a brief period at the beginning in the form of instructional, prompting, and behavioral management assistance. It is important to provide such supports in a preventive and proactive manner instead of waiting until the individual has difficulty and thus develops an aversion to the new environment.

The transition from school to work is often considered the most significant transition that a student will face during the school years. Early transition planning, which begins by the 14th birthday or earlier, is the key to successful adult outcomes, including obtaining a job. Situational assessments and vocational experiences in real settings are key to enhancing this probability. The training of parents/administrators/school staff and others to assist in planning for a positive outcome is critical. Full participation of the individual who is transitioning from school to work also promotes a successful outcome and minimizes anxiety.

SEXUALITY

This section describes issues relating to the sexual development of individuals with ASD. It includes an understanding of all of the areas that are affected by a person's developing sexuality. This section is best used in conjunction with the remainder of the document, because sexuality is associated with the ability to communicate, to process sensory stimulation, and to behave appropriately in private and social situations.

Sexuality is a natural part of life that everyone has the right to express in appropriate ways. A healthy sexual life contributes to personal dignity, interpersonal relationships, and full participation in life. Many individuals with ASD have social, communication, and sensory difficulties that can impede the development of a healthy sexuality; therefore, it is important not to overlook this area of development.

Characteristic behaviors and communication barriers displayed by individuals with ASD pose many challenges in the classroom, the community, and at home. These same challenges may cause difficulty for the individual with ASD in the expression of sexuality. Often the individual's behavior is misunderstood by others. Knowledge of the characteristics of ASD will enable caregivers to better understand these behaviors as they relate to sexuality, as well as to maintain a positive approach to learning and living; therefore, comprehensive educational programs for individuals with ASD must address issues of sexuality.

"It is a paradox that the individuals about whom we have the most ambivalence regarding sex education are the persons who most need it" (Sgroi, 1989, p. 204). "I believe that sexuality education begins at birth" (Monat-Haller, 1992, p. 41). An ongoing hierarchy of skills training should be included in any educational program for individuals with ASD. Such training may begin in the early childhood years with developing an understanding of one's body, how it works, and how it changes. As the child develops, parents and educators should continue the process of providing additional timely information about the body, including hygiene needs, information about the body of the opposite sex, and the potential outcomes of sexual involvement. Children should be taught to use the appropriate names for body parts from an early age to reduce the risk of being unable to communicate personal needs or to relate information that may affect their health or safety. Educational programs should use clear visual supports, Social Stories, rule sets, and materials that teach skills for appropriate social interactions, dating, and understanding/relating sexual interest, as well as assist the individual to understand that successful relationships must be mutually fulfilling.

Individuals with ASD must:

- Have the opportunity to make friends
- Learn skills that will assist in making friends
- Learn to care for their own personal health and hygiene
- Understand how to interpret changes in their bodies as they develop
- Learn the social consequences of appropriate and inappropriate behaviors
- Have outlets for their sexuality/needs
- Receive help in understanding these needs and in understanding the needs of others

All parties associated with the social-sexual development of persons with ASD must resolve any concerns and communication challenges associated with sexual subject matters. There is much we do not know about the feelings, desires, and drives of individuals with ASD. For example, sometimes medication or other medical issues may affect the sexual development and/or sexual needs/expression of an individual. It is clear, however, that many persons with ASD have a sex drive and often express it through solo masturbation rather than through sexual experimentation with others. Families must recognize the importance of these urges in human development in order to remove the illegal atmosphere that surrounds masturbation behaviors. Individuals can learn that there is a time and a place for meeting sexual needs with reasonable dignity and privacy.

Common Concerns Regarding Sexuality and ASD

- Public or inappropriate displays of sexual behaviors (exposing self, public masturbation, etc.)
- Self-injurious masturbation
- Social contact/touching problems
- Problems with privacy issues
- Inability to empathize (or express empathy) with others
- Inability to distinguish exploitative behaviors either towards others or by others

Sexuality – Teaching Techniques

Teaching techniques regarding sexuality must be holistic, functional, and concrete. Therefore, efforts in this area should include a broad range of issues and objectives.

A holistic approach considers all aspects of social preparedness for relationships and must include:

- An understanding of one's own body, its function, and its appropriate care
- The development and use of concrete language for body parts and functions
- Special scripts and rules to aid in the understanding of the feelings and needs of others
- Scripts and rules for the appropriate time and place for behaviors of sexual expression

Even after an individual with ASD develops social understanding and awareness, generalizing the information from one situation to the next can be difficult, especially if the rules are unclear; therefore, it is best to develop rules for appropriate behavior that are functional. In general rules are stated as expectations with defined consequences. Most people attempt to follow the rules and modify rules and behavior to fit a given situation. For example, people generally use eye contact with others as a way to indicate interest and respect. However, in certain situations, such as in elevators, this rule changes. In elevators, eye contact is not welcomed and can be considered threatening. Individuals with ASD have difficulty predicting these types of expectations unless they are specifically taught about, and supported in, these confusing situations. Understanding and expressing nonthreatening and acceptable social behaviors in public restrooms is particularly important. Since these behaviors may differ between men and women, it is important that specific gender instruction is provided.

Temple Grandin (1995), an internationally known adult with ASD, organized situations into three categories: really bad (stealing, property destruction and hurting others), sins of the system (smoking, public sexuality, cursing, etc.), and illegal but not bad (speeding, double parking or jay walking). Temple explained that she does not have any social intuition but relies on pure logic. She categorizes rules according to their logical importance and not by her emotion. Her insight is helpful in understanding that persons with ASD may not draw from common sense but from rote memory of their repertoire of social rules.

Concrete lessons delivered in a very structured way provide the best vehicle for learning for individuals with ASD. Social Stories, the work of Carol Gray (1994), provides a nonthreatening vehicle for rehearsal of appropriate behaviors. Rules scripts as described by Mirenda and Erickson (2000) provide similar channels for facilitating social cues that aid the individual in novel situations. Using strategies such as those described above enables teachers and parents to give thought to specific terminology and its potential for confusion. Specifically, discussions of a personal or sexual nature are often rich with confusing messages. For example, using the phrase "the barn door is open" as a reminder that an individual's zipper is down could turn out to be a confusing and unsuccessful interaction for an individual with ASD, who most likely would interpret it literally. Identifying and teaching figurative language/phrases is helpful.

INDEPENDENT LIVING SKILLS (22 YEARS OF AGE THROUGH THE LIFE SPAN)

The very nature of ASD and the associated characteristics suggests that individuals identified with ASD may struggle with decisions or problems encountered during the daily routines of life. Adaptive behavior is not identified as one of the core symptoms of ASD; however, challenges in the area of daily living skills are common, based on the reports of parents and the studies that have focused on this area of need. Several research studies indicate that for individuals with Asperger Syndrome, who generally have average and above-average IQ, the gap between IQ and adaptive behavior can be marked (Lee & Park, 2007; Myles et al., 2007). This means that regardless of the level of skill and ability, an individual with ASD may not be able to determine how to make a doctor's appointment, prepare a meal, remember to take medication, or ask a coworker for help. In a group of 20 adolescents with Asperger Syndrome, Green et al. (2000) found that despite a mean IQ of 92, only half were independent in most basic self-care skills, including brushing teeth, showering, etc. None were considered by their parents as capable of engaging in leisure activities outside the home, traveling independently, or making competent decisions about self-care. The skills involved with these tasks and countless others are often referred to as "independent living skills." School programs should begin very early to teach skills related to daily decision-making, choice-making, problem-solving, hygiene, nutrition, organization, time management, and many other related skills. As part of the yearly IEP review, teams must work closely with families and students to determine which are the priority skills to be targeted as part of an education program and, if appropriate, also included on the IEP. As youth enter adulthood, additional competencies in the area of independent living are required. This requires long-term transition planning.

Mandated educational services for individuals with disabilities, including those with ASD, end no later than age 22. However, due to ongoing challenges such as those related to independent living skills, individuals with ASD will likely need some level of support throughout their lifetime. Such needs are highly individualized and are influenced by the individual's ability level as well as changes in his or her environment, health, social, and employment situation. Ongoing supports can assist in maintaining stability for the person with ASD and facilitate successful inclusion in the community. A well-crafted transition plan, guided by the principles of self-determination, will identify and direct the adolescent and family towards the services and supports that are necessary for a meaningful adult life.

During the student's final years of K-12 education, the IEP team should identify those areas in which ongoing support will be necessary as well as the types of supports and services that are preferred. The students and family should then be linked to the appropriate adult or community agency beginning several years before the student exits school.

Common areas that may require ongoing supports or services include:

- Employment
- Education
- Daily living
- Recreation/leisure life/physical fitness
- Community participation
- Health services/medication management
- Communication
- Social relationships (at all levels of intimacy)
- Finances
- Citizenship

Families of children with ASD may wish to investigate the many agencies that can offer support both during the school years and in adulthood. Many agencies' support is limited during childhood (except in situations where child and family needs are significant) but increases as youth transition to employment and adult living. Support may be available in the form of financial assistance, information and/or direct service. Families should become familiar with the eligibility requirements and potential services for both children and adults by contacting a local office or representative. Important agencies to research and possibly contact include Ohio Department of Developmental Disabilities, Ohio Rehabilitation Services Commission (Bureau of Vocational Rehabilitation, when nearing transition), Ohio Department of Jobs and Family Services, and the Social Security Administration. Refer to the Agency Overview table in Appendix VI for a brief explanation of eligibility, services, and a timeline of activities to assist in connecting with each agency.

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INSTRUCTIONAL ACCOMMODATIONS AND MODIFICATIONS

The purpose of accommodations and modifications is to facilitate access to and progress in the general education curriculum for students with ASD. Accommodations and modifications may range from minor accommodations to major instructional modifications to the environment, curriculum and materials, as well as learning modalities and preferences. Accommodations and modifications allow students to have access to grade-level standards and materials and demonstrate mastery in a variety of ways that compensate for their disability. The IEP team must consider the impact of the disability on the educational progress and then identify accommodations and modifications, as needed, for the student to make effective progress, which may include supplementary aids and services. Critical information about the student's learning style and preferences, academic abilities, sensory motor skills, sensory differences, and biological needs will guide the use of the following:

TIME

Change the amount of time allowed for learning, testing, and task completion. This includes time for breaks during the task or activity.

Examples:

- Allow student to take class work home to finish.
- Give more time to complete part or all of an assignment/test.
- Remove the "timed" portion of an activity.
- Allow quick "stretch breaks' during an activity.
- Build in planned breaks with a schedule for completion (i.e., "first/then"), in order to prevent students from spending too much time on an activity, becoming frustrated and inattentive.

SIZE/AMOUNT

Change the required amount of items that the student is expected to complete.

Examples:

- Cut the worksheet in half.
- Place a "stop sign," red line, or some other indicator on the worksheet to indicate that the student is done at that point.
- Allow the student to choose the sequence of completion of tasks/problems (building in choice).
- Allow the student to decide if he should complete 5, 6, or 7 items of the 10 items (building in choice).
- Start a new concept by having the student complete only one or two items, the next time three, then four, etc., as the student's confidence and skill improves.
- Allow the student to do more items than required if it is an area of preference. Give extra credit for those items to help balance a time when the student is not as successful with an activity

PARTICIPATION

Adapt the extent to which a student may be involved in the task or activity by allowing the student to use student strengths and interests.

Examples:

- The student takes tests in a quiet area.
- The student types the answers that the group tells the student to type.
- The student glues pictures on the page that have been placed in the correct order, while other students decide the order.
- The student holds the map while others point to various locations.
- The student passes out the reading books to each classmate and chooses who will read while others do the actual reading.
- The student holds the “strands of DNA” (string) while the other student decides in what order the “molecules” (gumdrops) are placed.
- The student listens in reading group while others read out loud.
- The student who has difficulty with auditory comprehension reads while others listen and is then excused to complete a hands-on task.
- A vocational activity may include a variety of students with different strengths. In one shopping activity there may be an opportunity for the student to:
  - Write the list
  - Decide what to put on the list
  - Decide the approximate amount of money needed and to count out that amount
  - Give directions to the store
  - Read the list
  - Cross off the items as collected
  - Push the cart
  - Decide which line is shortest/fastest at the checkout
  - Greet store employees that are familiar
  - Count out the necessary money
  - Bag groceries
  - Carry the bags
  - Count to be sure everyone is accounted for when time to go

INPUT

Provide a variety of ways that instruction is delivered to the student to maximize the student’s learning style/preference.

Examples:

- Use an overhead projector, smartboard, whiteboards, or LCD projectors to note the main facts or important concepts that the student is to remember.
- Use an amplification system to improve the student’s ability to understand and attend to the verbal instruction.

- Allow for small-group activities that support the general concepts being taught. In this case, the focus is on the information generated to the group vs. an end product. For example, the students may work in a small group and discuss specific examples of dairy, meat, vegetables, fruits, etc., from their daily meals.
- Provide a "designated note taker" or photocopy and hand out other students' or the teacher's notes.
- Provide a printed outline with multimedia presentations.
- Provide a print copy of assignments or directions written on the board for the student that cannot easily shift attention from board to paper.
- Provide visual supports such as a visual schedule and/or a micro schedule within the schedule.

OUTPUT

Modify the way a student is required to respond to instruction or show knowledge of instructional material.

Examples:

- Allow for fill-in-blank answers for the student who has difficulty with handwritten assignments.
- Allow the student to use a keyboard, computer, or label-maker instead of handwriting on assignments.
- Allow the student to respond orally vs. written assignments, quizzes or tests.
- Allow the student who has difficulty working in groups to "instant message" with teacher/students to decrease anxiety.
- Allow the student to build models or other hands-on activities to show knowledge instead of written or oral reports.

DIFFICULTY

Adapt the skill level required, the type of problem presented, or how the student may approach learning the required materials.

Examples:

- Provide the student with a copy of teacher notes.
- Allow the student to take "open-book test."
- Allow the student to use a calculator.
- Provide the student with the correct numbers and functions to use with a story problem.
- Break problems or tasks into smaller, more easily understood steps. For example, provide the student with a visual list of items that are necessary to accomplish an academic task (calculator, pencil, paper, book, and ruler), rather than just giving a direction to "get ready for math."
- Instead of presenting a large number of food items and directing the student to categorize items as fruit, vegetable, dairy, or meat, ask the student to locate one category of items at a time, providing a picture, if necessary, or simply ask the student to match the food item to the name.

LEVEL OF SUPPORT

The amount of personal assistance that the student receives may increase or decrease based upon the student's learning style and preferences, academic abilities, familiarity with tasks, reinforcement, familiarity with the environment, visual supports, sensory motor skills, sensory differences, and biological needs.

Examples:

- Provide the student with preferential seating to accommodate sensory and learning needs.
- Allow for a peer to assist in completing tasks or understanding materials when the student demonstrates familiarity and preference with the peer, task, and environment.
- Provide additional adult support (e.g., general education assistant, special education assistant, related services personnel) to reinforce materials already presented and/or modified by teachers, including general education and intervention specialists.
- Provide environmental supports or modifications.
- Provide more intensive empirically based interventions in addition to the specific educational instruction in the regular education classroom to assist in understanding of the material or formulating responses.

MODIFIED CURRICULUM

Provide different instruction, materials, and goals that incorporate grade-level standards with functional life skills and activities.

Examples:

- A student may learn computer/keyboarding while others work on a writing assignment.
- A student may cut out items from a magazine and create a picture book of healthy foods while other students are writing about health and nutrition.
- A student may have work experience in a local record store stocking shelves and doing inventory utilizing a scantron or calculator while others are taking algebra or calculus classes in the school.
- A student may create a visual schedule for the day in school while others are following a printed schedule of classes.
- A student may take a morning walk as part of a “sensory diet” while others are reviewing the homework assignment and making corrections.
- Student participates in alternative assessments for all classroom, district-wide and state mandated assessments.

FROM HIGH SCHOOL TO ADULTHOOD: FOCUS ON TRANSITION

As students become youth, they, their families, and the educational team are faced with having to complete and implement plans for life as an adult. Looking ahead to adulthood can bring both excitement and apprehension. Knowing where the student is headed, identifying the best paths to take and understanding what to expect will lessen the stress of this most important transition.

This section of the service guidelines focuses on specific information to assist students, families, and educators to understand and make decisions as they look forward to adulthood. This section also offers strategies and resources to assist those who are supporting individuals in their home, educational, work, and leisure environments.

This section is devoted to understanding the issues faced during the transition years of high school. This includes a review of the components of the required IEP transition plan as well as implications for programming for youth with ASD.

PRINCIPLES TO GUIDE THE TRANSITION PROCESS

PERSON-CENTEREDNESS

This refers to a conscious personal commitment to self-awareness and self-reflection and the impact of one's beliefs and behavior on the lives of other human beings (Kendrick, 2000). Not only is it important for individuals with disabilities to be "person-centered" and develop a vision of what they want for themselves in the future, it is also important for those who are working with them to develop and achieve that vision to be "person-focused" as opposed to "system-focused."

A vision for the future is critical to the development of a sense of purpose and mission in the world, especially in those with disabilities. Students without such direction may have social adjustment problems, such as anxiety and depression. A student's goals may at first seem improbable to some participants. However, a skillful facilitator will be artful in separating the goal and the stated desire, allowing the focus to be on a student's strengths

PERSON-CENTERED PLANNING (PCP)

PCP involves the "development of a "toolbox" of methods and resources that enable people with disability labels to choose their own pathways to success; the planners simply help them to figure out where they want to go and how best to get there. Person-centered planning is a process-oriented approach. It focuses on the people and their needs by putting them in charge of defining the direction for their lives, not on the systems that may or may not be available to serve them. This ultimately leads to greater inclusion as valued members of both community and society (Cornell University; http://www.ilr.cornell.edu/edi/pcp/index.html).

"Students with disabilities with language or cultural differences are at particular disadvantage and risk for unequal representation in traditional service-provision meetings" (Callicott, 2003, p. 60). According to Turnbull and Turnbull (as cited in Callicott, 2003), great expectations and cultural diversity cannot be realized if families do not participate in the dialogue of future planning. "Person-centered planning is one way to facilitate participation without articulating a single agenda for schools, families, and students" (Callicott, 2003, p. 60).

PARENT INVOLVEMENT

Parental involvement is essential to future planning and the transition process. Parents can teach life skills by modeling skills and providing opportunities, training, and support in performing and practicing skills. These activities should begin when the student is a very young age and continue into the young adult years. Educators can partner with families by providing ideas and help with organizational or communication supports. For example, video and peer modeling have been used to learn activities of daily living such as grocery shopping and making change.

SELF-DETERMINTATION/SELF-ADVOCACY

This involves identifying opportunities where the student can take responsibility for school projects, scheduling appointments for medical appointments and hair cuts, or budgeting allowances and making purchases, etc., including being involved with their own IEP. Developing those skills in school will better prepare young people for future independent living.

AWARENESS OF PROBLEMS AND CONCERNS

Being aware of problems and concerns that may impact the transition process and appropriate planning is key to making successful transitions for a student with ASD. It is important to know when a student has particular difficulties and under what circumstance they occur. Once the circumstance is understood, the plan for supportive, preventive measures can be put in place. *Keep in mind that challenges will hide the student's strengths AND some strengths can hide challenges.*

FOCUS ON THE STUDENT'S ABILITIES, STRENGTHS, PREFERENCES, AND INTERESTS

Structured trials in the community that are specific to the student's strengths, using modifications, accommodations, and supports will accommodate areas of challenge. The structures that are in place in the school environment for a student's success may be the same structures that are needed for success in postsecondary settings.

ONE SIZE DOES NOT FIT ALL

Although there are specific considerations and suggestions for students with ASD, each student is an individual and will require a tailored approach to planning a successful future. IEP teams should focus on individual assessment as a means to guide the selection of meaningful goals, services and supports.

SCHOOL-AGE TRANSITION PLANNING

School-age programming for students with disabilities, including ASD, should consider the transition to adulthood process as early as possible. In Ohio, no later than age 14, teams must be engaging in age-appropriate assessments and developing statements related to transition planning. Such ongoing assessments lead to the creation of transition goals and objectives that support the identified outcomes the student desires following high school.

COMPONENTS OF THE TRANSITION PROCESS

The transition portion of Ohio's IEP form systematically leads the team through a process that focuses on future planning. The form captures the essence of a future planning process and documents essential activities. The following components align with this transition process, and each plays an important role in developing a comprehensive transition plan.

COMPONENT 1: FUTURE PLANNING/VISION STATEMENT

The student and/or family bring future planning information to the IEP team, thus assisting in making the process person-centered. Questions to ask and consider in developing the future planning statement include:

- Where do you see yourself (student) living after high school?
- How will you continue to learn after high school (2-year, 4-year college, on-the-job training, adult continuing education, military)?
- How will you support yourself (earn an income) after high school?
- What will you do for recreation and leisure?
- How will you be involved in the community?

COMPONENT 2: STATEMENT OF TRANSITION SERVICES NEEDS (AGE 14)

A statement of the transition service needs of the student that focuses on the student's courses of study is included as part of the IEP transition process at age 14 and above. Although it is best to begin planning earlier, formal planning for secondary transition is documented in the IEP at age 14. The planning that occurs by age 14 may be thought of as planning for the transition to and through the first years of high school.

At age 14, Ohio requires both a transitional statement/paragraph on the IEP and a summary of age appropriate assessments that can be standardized, informal, and/ or situational. Assessments should be tailored to realize the student's future plans and transition statement.

This information assists the IEP team to identify and document a course or several courses of study that should be determined before entering ninth grade. This can include instruction in life skills and social competency, regardless of the student's academic ability or the environment in which the student is instructed.

COMPONENT 3: AGE-APPROPRIATE TRANSITION ASSESSMENT (AATA)

Age-appropriate transition assessments (AATA) must begin by age 14 years (or younger, if appropriate), are ongoing (throughout the school years), and should be initiated before the IEP meeting when the student will be turning 14. The purpose of AATA is to assist in guiding the transition from high school to adulthood, and is used to inform the development of measurable postsecondary goals for the student. AATA is individually designed and assists the team in developing meaningful educational programs and services that lead to successful adult outcomes.

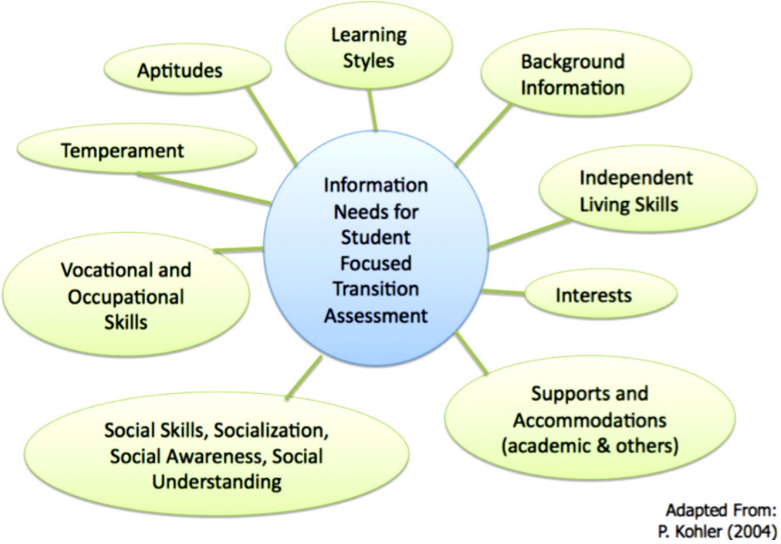
According to the Ohio Department of Education, Office for Exceptional Children (2009),
AATA should be used:

1. As evidence that the student has or is developing skills necessary to achieve the student's postsecondary goals;
2. To determine the transition services and supports needed for the student to make progress toward the postsecondary goals;
3. As the basis for identifying annual IEP goals to support the post-school plans; and
4. To inform the appropriate and logical linkages to adult, community, and postsecondary agencies and the services they provide.

The entire team (including family and student) may use the results of AATA to make decisions and develop a student's course of study, measurable postsecondary goals, and transition services. According to Sitlington, Neubert and Leconte (1997), "assessment data serve as the common thread in the transition process and form the basis for defining goals and services to be included in the Individualized Education Program (IEP)" (as cited by the Division on Career Development and Transition, n.d.).

AATA is not a single test or tool and includes information from multiple sources (including parent and student). There is no one "correct" transition assessment format or set of tests. Transition assessments are individualized and collect data on a particular student's needs, aptitudes, interests, and abilities. Transition assessments can include formal testing (achievement, aptitude, and interest), informal testing (interviews, observations, questionnaires), and situational work assessments. Behavioral, self-determination, and independent living assessments should be considered and may be included when necessary for future planning. Ongoing AATA assists in the evaluation of the postsecondary plan, which is crucial for determining if the student is on the right track toward the student's vision.

Transition Assessment Information Needs



COMPONENT 4: MEASURABLE POSTSECONDARY TRANSITION GOALS AND OUTCOMES

By age 16, the IEP must include postsecondary transition goals that are:

1. Individualized to the student (reflects the student's preferences, interests and strengths);
2. Focused on life after high school ("Following graduation John will work full time."); and
3. Measurable (can be objectively evaluated; i.e., "Following high school, Jose' will attend Acme Technological Institute" and not, "Following high school, Jose' wants to attend Acme Technological Institute").

Measureable postsecondary goals are required to focus on both:

- Employment: Supported employment, sheltered employment, competitive employment, full-time, part-time, and what type of career/job is desired; and
- Education: College, university, community colleges (two-year), vocational/technical schools, adult education.

As appropriate, measurable postsecondary goals should also focus on:

- Independent living: Residential options (independent, sheltered living, supportive living), money management, health care, sex education, medication management, entertainment, citizenship, physical fitness, etc.

COMPONENT 5: TRANSITION SERVICES/ACTIVITIES

The term "transition services" is defined by IDEA as a coordinated set of activities for a student with a disability that includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and the provision of a functional vocational evaluation. A comprehensive transition plan is developed when the team gives consideration to whether the student has a need for services or activities in each of these areas, as related to the student's post-school plans (Ohio Department of Education, 2009).

Because students with ASD have difficulty with generalization, transition services may be most effective when delivered in environments that most closely resemble the environments in which students will work, learn, and live. For example, social skills instruction for students with ASD has been found to have limited effectiveness when only provided in a classroom setting using worksheets or a lecture format.

Schools should provide realistic opportunities for career exploration as part of the transition services. Transition programs should include evidence-based practices that have been recognized to lead to meaningful employment and adult living. These include authentic community work and education experiences that resemble adult life and allow for interactions with potential employers and other community members.

Students who have community job experiences prior to leaving high school are more likely to become employed as adults. Whether a student plans to continue in postsecondary education or pursue employment following high school, it is strongly suggested that transition plans promote community-based experiences. For example, summer and after-school jobs can help students develop employability skills, like being on time, following directions, or learning a sequence of tasks

COMPONENT 6: ALIGNING IEP GOALS AND OBJECTIVES

Once the student has identified measurable postsecondary transition goals and outcomes as part of Component 4 outlined above, the IEP goals, objectives, and educational program should become closely aligned with these outcomes. This implies that the student's educational day should include meaningful learning activities as related to their projected adult life. Thus, the resulting IEP process for the transition-age student focuses on provision of instruction and experiences during the middle and high school years that will lead to the desired adult outcomes.

The school is responsible for the coordination and provision of the instruction and skill development identified in the IEP as being necessary for the student with ASD to be successful after graduation. A transition coordinator, postsecondary transition specialist, work study coordinator, vocational rehabilitation counselor, school counselor, special education coordinator, etc., should be included as members of the transition planning meeting as well as the IEP team.

The IEP team (which must include the family and the student) selects and describes a course of study that is reviewed and revised (if necessary) on a yearly basis. Although academic achievement is important, the course of study should also reflect skills and activities that are necessary in order to live and learn as an adult (i.e., functional performance). Functional performance (as defined for the IEP) includes activities of daily living, consumer skills, problem-solving, decision-making, and employability skills. Functional performance may also include the ability to access public transportation, social/emotional skills, or behavioral difficulties, and personal safety and socially appropriate behavior.

The following areas must be considered and, if necessary, included in the course of study and the IEP goals and objectives:

1. Academic instruction and career development
2. Functional Life and social skills
3. Self-determination skills
4. Community-based career development

COMPONENT 7: AGENCY COLLABORATION AND FUNDING RELATED TO SCHOOL-AGE PROGRAMMING

Most school-age programming is funded solely by the local education agency. However, some students may be eligible for vocational services from other agencies. Inviting agency personnel and potential employers to IEP meetings may be appropriate based on future plans. Agencies associated with adult living should be contacted and connected during the school years in order to support youth transition services and to prepare for adult life. Examples of agencies that may collaborate with the school transition team to provide services or funding for transition and adulthood include:

- County Boards of Developmental Disabilities that administer Medicaid waivers
- Bureau of Vocational Rehabilitation (BVR) that may provide vocational services
- Mental health agencies that may assist in employment and community participation
- Vocational/employment agencies (such as Easter Seals or Goodwill)
- Jobs and Family Services, may provide support for both employment and independent living
- Social Security Administration can offer financial support and work incentives for those who qualify
- Autism advocacy groups

Transition teams should make it a practice to explore all local resources and make connections with agencies or individuals that can offer support in employment and adult living. Youth with ASD should investigate eligibility requirements and potential services of a variety of agencies by contacting a local office or agency representative. Refer to the Agency Overview table in Appendix VI for a brief explanation of eligibility, services, and activities to assist in connecting with important agencies.

Other collaborative agency and community activities include:

- **Transition Fairs** – Agencies (BVR, DD), postsecondary institutions, Social Security, and local employers send representatives to a site (usually provided by the school) to present information on their services, talk with families and students, and answer question. Students can be prepared ahead of time by deciding whom they want to talk with and writing questions for the representatives.
- **Career Development Activities** – Part-time, summer work, and volunteer experiences are critical foundations for successful transition. However, organized group activities such as clubs, hobbies, and community organizations may also help students with ASD begin to solidify strengths and interests that can be linked to future work opportunities. School transition teams can assist by being knowledgeable about community resources and by providing contact information for families.
- **Community Connections** – Make efforts to get to know neighborhood employers, recreation, and leisure options while still in high school. Introduce student to the community. Identify options for employment and recreation that are close to public transportation to expand opportunities for the student.

SUMMARY OF PERFORMANCE

The summary of performance, which is required upon graduating, includes the student's academic, functional performance and recommendations on how to assist student in meeting postsecondary goals. Although this document is not considered part of the IEP, it can be a very useful tool in documenting that the student has a disability as well as accommodations and supports the student may need to be successful after high school in postsecondary settings.

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IMPLICATIONS FOR YOUTH WITH ASD IN TRANSITION TO ADULTHOOD

Characteristics	Strategy/Intervention
Repetitive behaviors and routines – Youth with ASD may demonstrate ritualistic or repetitive behaviors. They may range from physical routines, to verbal repetition, to intense topical interests. In some situations, these behaviors or interests can interfere with a job task, workplace plan or the completion of an academic assignment. Examples of these behaviors include: • lining up objects • hand flapping • rocking • walking in circle • repeating phrases • obsessive attachment to objects • doing things in certain order for no apparent reason • persistent focus on a certain topic	• Channeling the repetitive behaviors that cannot be stopped into more socially excepted behaviors can help limit the negative effect of this type of behavior at the job interview or on the job. Providing scripts of desired behavior/ responses and reinforcement for use of desired behaviors may be helpful. • In some situations, routines and rituals can become an asset; for example, a need to be organized can be a strength to an employee who needs to be able to easily locate items in the work area. The desire to focus intently on mathematical calculations can be an asset for the detailed work of an accountant or other “number cruncher.”
Intense Behaviors – Regardless of the functioning level, individuals with ASD may at times exhibit behaviors that are concerning due to frequent or ongoing occurrences. At times, there may also be a potential danger to self or others.	• Individuals with ASD who have behaviors that are aggressive or self-injurious require a thorough functional behavior assessment in order to identify the function and triggers of these behaviors. • Once the function and triggers of behaviors are identified, behavior support plans that specifically address these areas can be developed, implemented, reviewed, and reassessed on a regular basis. • Transition plans should include the use of these behavior support strategies in the targeted adult environments.
Resistance to Change – Individuals with an ASD often thrive on routine. A change in the normal pattern of the day – like a stop on the way home from school or work – can be very upsetting. (CDC) Changing the work schedule, altering breaks in the day, substituting job tasks, switching supervisors, etc., can be difficult for the individual with ASD in the workplace. The college student with ASD may also have difficulty tolerating unexpected changes in a daily schedule. Although the academic schedule may be routine he/she may not be able to enjoy the typical college social life, which tends to be unpredictable and spontaneous.	• Appropriate teaching or learning methods should include understanding how the student with ASD learns in order to generalize skills to improve flexibility and better post secondary outcomes. • Assist the college student with ASD to become aware of the social practices of college life, as well as the academic world. A mentor or peer who understands the need for predictability may be a helpful “bridge” for the student with ASD as he/she learns about the social routines of college life.

IMPLICATIONS FOR YOUTH WITH ASD IN TRANSITION TO ADULTHOOD

Characteristics	Strategy/Intervention
Sensory – Individuals with ASD often have sensitivities to the sensory environment that result in responses and reactions that can be difficult for others to understand. These sensitivities can intensify in situations such as: • transitions to new environments or people • specific noises, smells, or sights • visual sensitivity to lighting levels and visual clutter • lack of personal space (tactile defensiveness) • changes in schedules and routines • school, work, college, social deadlines • illness, sleep disturbances, or difficulties outside of school Sensory issues may be related to motor challenges as well. For example, students with ASD can display balance difficulties, awkward gait, unusual facial expressions or body postures, and fine-motor difficulties.	• Sensory processing can range from hypo-sensitive to hyper-sensitive and sometimes may change from one to the other, from setting to setting, or from sense to sense. When evaluating and selecting potential employment, educational and living environments, an environmental assessment with a focus on the sensory aspects is critical. The right “sensory fit” can make the difference between success and failure. • Document strategies and environmental adaptations to address sensory issues in the IEP. • When assessing a college or work environment, consider the following: 1. What do you know about the sensory issues for this individual? How do they affect school or work performance? 2. Are the following sensory triggers in the school environment or work setting? - Noise or specific sounds - Bright or dim lighting - Smells/odors - Visual clutter - Amount of personal space 3. What adaptations could be made to the environment to reduce or eliminate the sensory challenges? 4. Could the individual benefit from calming or alerting activities to deal with the sensory issues that remain? • An occupational therapist is a valuable team member when assessing for sensory issues and providing interventions. • Writing and other fine-motor activities may be very tiring or stressful; therefore, the fine-motor requirements of a class or job should be reviewed for compatibility, and adaptations should be provided as appropriate.

IMPLICATIONS FOR YOUTH WITH ASD IN TRANSITION TO ADULTHOOD

Characteristics	Strategy/Intervention
Communication-Socialization – Students with ASD typically struggle to respond to and understand the social aspects of a situation. This can be an area of challenge, regardless of the student's level of functioning or age. The student may have difficulty in both expressive and receptive language, and this may manifest with behaviors such as: • echoing/repeating words an phrases (echolalia) – immediately or delayed • self-talk about what to do, how to act, etc. • concrete interpretation of words/direction/conversations • difficulty of expressing needs and wants (verbal and nonverbal) • lack of understanding of body language, and nonverbal cues • difficulty understanding directions • irrelevant comments or focus on a special interest to the exclusion of other topics Needed social competencies may range from the very basic social skills expected of a young adult to the complex aspects of reading social cues and accurately interpreting another's perspective or point of view. Without intervention and support, these challenges can result in poor communication and strained social relationships, especially as students transition to the community where employers, professors, peers, coworkers, and other community members may not be prepared for, have had experience with, or understand these behaviors. Sometimes poor social and communication skills result in further isolating the individual with ASD, making him/her unable to form friendships or develop a comfort level with new professors.	• Individuals with ASD, regardless of functioning level or verbal ability, may need visual reminders of the schedule, the social rules, and how to communicate in certain environments. This may be done with words or pictures and can be incorporated in the work, learning, or living environments. • Some individuals may need an augmentative communication device, PECS, or other alternative mode of communication. When preparing for a work or community experience, be certain to provide communication supports that align with the individual's communication system and the community environment. • Social and communication goals should target skills that are necessary and required. That is, teach skills that employers, coworkers, and the community will require a person to use (such as appropriate hygiene) instead of those that are negotiable, such as initiating a greeting. • Individuals with ASD in college may need to be directly taught the social competencies required in higher education. Understanding who to go to with questions or to ask for help may not be natural or easily problem solved. Knowing when to ask for help is also an area that needs to be directly taught. The student with ASD may need explicit instructions on how to contact the Disability Services coordinator or another support person when problems arise.
Social Difference – Needed competencies for employment, postsecondary education environments, and community living may range from the very basic social skills expected of a young adult to the complex aspects of reading social cues and accurately interpreting another's perspective or point of view. For example: • Initiating conversation or questions with others (example: the boss and the co-worker)and how this may differ from one person to another • maintain or end a conversation or interaction • understanding or "reading between the lines" of a situation and determine how to act or react • problem solve simple to complex social issues such as waiting, changes in events, new coworkers, colleagues, professors, or bosses, or interactions with the opposite sex in social or work situations. Postsecondary education environments pose significant social and challenges such as understanding the college culture, reading subtle nonverbal body language, and quickly recognizing a peer's feelings.	• Transition assessment information should note social and communication concerns and the types of supports and interventions that may be effective. Interventions and supports should be included in plans for the future (including behavior support plans). • Social skill training and instruction may be necessary for a student with ASD and should occur in environments that closely resemble the future situations in which these skills will need to be used. • Teaching perspective-taking of others is important to the development of social competency (often referred to as the "hidden curriculum"). Tools such as verbal/written scripts, cartooning, social narratives, and video modeling can assist in this area.

IMPLICATIONS FOR YOUTH WITH ASD IN TRANSITION TO ADULTHOOD

Characteristics	Strategy/Intervention
Executive Function and Organization – Youth and young adults with ASD may have great difficulty with activities that require internal (mental) organization and ongoing attention to an ever-changing environment, especially when moving from the familiarity of school to the world of postsecondary work, learning, and living. Areas of challenge include organization, attention and shifting attention, mental planning, focus and filter, problem-solving and multitasking . Executive function issues may affect the ability to quickly learn and complete activities, assignments, or tasks, even in an area where the student has great talent. Resulting issues may include: • Appearing overwhelmed by a relatively simple task • Having difficulty getting started or knowing what to do when finished, even with a routine task • Becoming easily distracted and having difficulty returning focus or reengaging with the task or activity • Shutting down or becoming anxious with a change in the normal activity or class routine • Viewing a simple problem-solving situation as insurmountable	• Develop lists of the items that the individual will need to take to work and home. The list may be in pictures or words and used as an organizational checklist. • Make available visual routines/checklists (words or pictures) of frequent routines encountered in community locations. • Project the needed accommodations, modifications, or adaptations for the adult environments and document them in the IEP for the student and those that will be supporting the student after the transition. • Assess a college environment to determine the need for additional organizational modifications and supports. • Prior to enrollment, determine how supportive the postsecondary institution will be by visiting the school and meeting with Disability Services staff and potential professors.
Cognitive Difference – Individuals identified with ASD can have low, average or very high IQs. Sometimes an individual can have a higher than normal measured IQ, yet function well below his or her predicted ability level due to other challenges associated with ASD (such as those outlined elsewhere in this chart). Individuals with ASD may have strength and weaknesses in rote memory, working memory, critical thinking skills, and flexible thinking. Cognitive challenges may be related to difficulties with executive function rather than the capacity to learn	• Develop self-advocacy and self-determination skills that include having the individual with ASD become aware of his areas of strength as well as challenges and the types of supports that will assist him to be successful.
Emotional Vulnerability – Youth and young adults with ASD, like many other individuals, may be sad/depressed, fearful, easily stressed, and/or anxious. Shutdowns (introverts self and disengages mentally from setting) and/or meltdowns (injurious to self or other) can occur over low frustration tolerance and/or minor issues.	• Transition assessment for most students with ASD should include a focus on emotional stability. • Teach youth and young adults with ASD to recognize the types of situations that cause emotional distress, when these may occur, and what to do when encountering these situations. • Strategies such as the Five-Point Scale, video modeling, social narratives, priming, and visual supports may assist in recognizing the situations as well as when to use the targeted strategies.
Biological/Medical Needs – Co-occurring medical or biological challenges for individuals with ASD are very common and have the potential to complicate and compromise their ability to learn, work, socialize, and live independently. With a greater understanding of and education about these additional issues, preparation for next environment can occur that will lessen the risk of a potential crisis.	• Identify the potential effect of the biological/medical challenges on the education, employment, and independent living environments. • Identify issues that may be amenable to intervention (perhaps sleep difficulties) and those that may be lifelong issues requiring ongoing assessment, monitoring, and intervention (such as mood disorders).

PREPARING FOR SPECIFIC ADULT ROLES

The following areas provide more information and considerations for individuals with ASD entering adulthood. Specific areas of employment, postsecondary education, and community/independent living are reviewed in the following pages.

TRANSITION PLANNING FOR EMPLOYMENT

If a student's vision for life after high school is employment, it is critically important that transition planning and the IEP include specific employment-related goal and objectives.

Currently, the employment outcomes for adults with ASD are not encouraging. Some studies suggest that as few as 6% of individuals with ASD have full-time employment (Barnard et al., 2001).
A Seltzer and Kruas (2002) study of 405 adolescents and adults with ASD indicated that:

- Those in supportive employment worked an average of 15 hours per week
- Those in competitive employment spent roughly 27 hours per week at their jobs
- Those in sheltered workshops worked an average of 24 hours per week

Further, the 2005 National Longitudinal Transition Study-2 reported a post-school employment rate of 14% for individuals with ASD. The same study reported that 75% of parents expected their children with ASD to secure post-school employment. However, only 20% of the surveyed individuals' IEP goals included competitive employment, 25% of the goals included supported employment and 15% included sheltered employment.

Obtaining employment presents challenges for many individuals with ASD. However, effective transition planning and careful selection of services in high school can contribute to successful employment. Multiple and varied work experience opportunities with individualized supports may be necessary for the individual with ASD to select and secure successful postsecondary employment. Often students with ASD have limited opportunities for career development and work experience while in high school, either because of communication or behavior challenges.

At times, school personnel and/or parents avoid attempting work experiences out of fear that the youth cannot handle a work situation. Instead, careful planning and individualized supports should be provided to help the student with ASD to experience opportunities that lead to a fulfilling adult life and meaningful employment.

Refer to the Components of the Transition Process section for additional information. The following are some specific areas that should be addressed in the IEP of any student with ASD whose vision is securing successful employment after high school.

ASSESS SKILLS/INTERESTS

A complete transition assessment can further help students and families identify areas of interest/ability and establish postsecondary goals and the services needed to achieve these goals. The measurable postsecondary goals that are established by the IEP team should align with the assessment data, and the services that will be planned and implemented for the student should reasonably help him achieve employment. (For more information, refer to Component 3: Age Appropriate Transition Assessments in the Components of the Transition Process section.)

TEACH LIFE SKILLS

Teaching students functional life skills is also a high-evidence secondary transition practice (Test, 2007). This holds true for all individuals on the autism spectrum, including those with high communication and cognitive skills. Parents can provide simple job development experiences to teach life skills by assigning household chores that incorporate following directions (with visual supports if necessary), building on student interests, or providing incentives for work completion. These activities should begin at a very young age and continue into the young adult years.

Educators can be partners with families by providing ideas and help with organizational or communication supports. For example, video and peer modeling have been used to learn activities of daily living such as grocery shopping and making change.

PROVIDE JOB EXPERIENCE

During middle school and high school, students with ASD should frequently participate in experiences such as:

- Volunteer jobs
- Summer employment
- Unpaid or paid internships
- In-school work experiences
- Job shadowing

Thorough preparation for a new setting and necessary supports will minimize or accommodate the student's sensory, social, communication, or cognitive challenges.

COLLABORATE WITH AGENCIES EARLY

Collaboration of school transition services and staff with community transitions agencies can ensure better employment outcomes for students. Agencies such as the local County Board of Developmental Disabilities, Bureau of Vocational Rehabilitation (BVR), local mental health agencies, autism advocacy groups, and providers like Easters Seals may provide information, funding, or vocational services, and can be included in IEP transition planning and as part of a package of resources for accommodations, modifications, and supports in the workplace.

References:

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TRANSITION PLANNING FOR POSTSECONDARY EDUCATION

PREPARING TO ENTER POSTSECONDARY EDUCATION

More than ever before, students with ASD are exiting high school with plans to continue their education in college or other training programs. Formulating plans and developing timelines for the transition to a postsecondary education program should be initiated while the student is still in high school. The plan will require multiple steps, including:

- Determine the course of study the student needs to take in order to meet postsecondary requirements, such as college prep courses, electives, foreign language (3 years consecutive required for some), and volunteer work. This step may also consist of providing an additional service(s) to close a gap in one or more academic areas.
- Apply for and complete the ACT, SAT, or other form of test admittance program.
- Obtain and complete a college application.
- Research how to apply for financial aid, housing, etc.
- Identify necessary academic accommodations and adaptations and research how to document the need and request the accommodations at the desired college or training program.
- Some students may be able to access postsecondary education options (PSEO), while others may take a class at a local university, college, community college, or technical school for a college experience during their high school years.

Some skills are important for ALL individuals with ASD to develop before leaving high school. These include:

- Self-determination and self-advocacy. This includes developing an awareness and understanding of ASD and how it affects the individual. Being able to self-advocate is essential.
- Being aware of their sensory needs, what kind of learners they are, and what tools are most effective for them to utilize (as in a writing rubric or web for braining storming ideas for a paper).
- Time management, coping, study, and organization skills.

College-bound students with ASD may also need to acquire information about the following:

- Knowledge about the difference between FAPE (free and appropriate public education) accommodations and Section 504 of the Rehabilitation Act/the Americans with Disabilities Act Amendments (ADAA).
- Acceptable supports and accommodations.
- Continued services in social skills and effective communication skills.
- Continued service in mental health for adjustment disorders.
- Training in high school expectations vs. college expectations — rules and flexibility.
- The choice to delay their graduation in order to meet their postsecondary transition goals

The Summary of Performance, with the accompanying documentation, is important in assisting the individual transitioning from high school to higher education. This information is necessary under Section 504 of the Rehabilitation Act and the ADAA in order for postsecondary education settings to help establish a student's eligibility for reasonable accommodations.

PARTICIPATION IN POSTSECONDARY EDUCATION FOLLOWING HIGH SCHOOL GRADUATION

Upon receiving a diploma, or exiting high school, the student with ASD leaves the entitlement program of IDEA. This is a law that is administered by the Office of Special Education Programs in the Office of Special Education and Rehabilitative Services in the U.S. Department of Education. The IDEA and its IEP provisions do not apply to postsecondary schools, which means that "free and appropriate public education" as defined in the school-age legislation of IDEA does not apply in college. This means that postsecondary education programs are NOT required to provide specially designed services or instruction, related services such as speech therapy and occupational therapy, curricular modifications or diagnostic evaluations. Although accommodations are possible, some colleges tend to offer only a few standard options. In addition, parent involvement is not required or solicited. Instead, students are expected to assume the role of an independent self-advocate with self-determination skills to receive assistance in college. To obtain assistance in the form of accommodations, students must "qualify" for access to Section 504/Title II (i.e., a documented disability, substantially limiting a major life function, requiring reasonable supports and accommodation).

504 of the Rehabilitation Act of 1973 (Section 504) and Title II of the ADA of 1990 (Title II) is a law, which prohibits discrimination on the basis of disability. This means students must have equal "access" to education. Although students with ASD must meet the essential requirements for admission into a postsecondary institution, the institution may not deny admission because of a disability. Students with ASD may choose to disclose their disability and ask for "reasonable accommodations" (e.g., tape recorder, extended time on tests, auxiliary aids and services) after admission into the institution. This requires students to explain their disability, the impact of their disability on access to education, as well as identify the needed accommodations. This requires specific documentation such as Evaluation Team Report (ETR) and medical evaluation of a disability that is accepted by the college or university.

References:
Izzo, M., & Shaw, S. (2008). Evidence-based practices that build and foster student competence for success in postsecondary education. [PowerPoint Slides]. Retrieved from http://www.nsttac.org/nsttac_presentations/may08/ContentSessionIGreen/IzzoShaw.ppt

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TRANSITION PLANNING FOR COMMUNITY PARTICIPATION

INTRODUCTION

"Play is work, and work is play, is a saying common to those providing services to people with autism. The more organized, predictable, structured and consistent nature of work is often a more comfortable environment for people with autism. This structure helps a person with autism understand the environment better, understand what is expected, understand when the task will be completed, and understand what will happen next. When these understandings occur, there are fewer issues with behaviors, and the person with autism completes the required task better. The spontaneous, less-structured nature of play and recreation is much harder for people with autism to comprehend and follow" (Recreation Services for People with Autism, UNC Project Autism Guidelines Manual as cited in Transition to Adulthood Guidelines for Individuals with Autism Spectrum Disorders, 2008, p. 81).

The biggest challenge for individuals with ASD in community participation is often their lack of social competence and communication skills. Lack of knowledge and understanding about ASD is also a challenge for recreation, health care, and mobility providers when including individuals with ASD in activities and services.

INCLUDE COMMUNITY PARTICIPATION IN IEP

Recreation and leisure activities are key components of community participation, but daily living skills such as cooking, hygiene, travel/mobility, money management, and health care are also necessary for successful everyday functioning. Instruction in sexuality may be another important consideration for the individual with ASD and his family. Including recreation, daily living skills, and sexuality instruction along with travel training in IEP transition services, therefore, will help individuals with ASD and their families begin to think about what skills and supports they need for successful post- school community participation. Developing these skills and interests is also a part of the self-determination process, which helps with making choices and decisions that impact quality of life.

USE TECHNOLOGY

Another developing area of recreation is the use of technology for social skill development and communication. This is evident in the increasing popularity of blogs, emails, chat rooms, virtual environments, social networking, and online games. Myspace, Facebook and virtual environments like Second Life can be safe places for individuals with ASD to practice and develop social skills.

PLAN FOR COMMUNITY PARTICIPATION

One approach to encouraging community participation for individuals with ASD is a three-step process that first looks at identifying recreation opportunities in the community by using a resource mapping strategy. Second, after identifying these resources, plan for participation or access by the individual with ASD. Third, make modifications and implement social, communication, sensory or visual supports necessary for participation.

1. Identify Opportunities

Once out of the structure of school how can one find out about organizations and activities that meet the recreation/leisure interests of individuals with ASD? One way is to become familiar with the opportunities offered by community recreation programs, regional and county park systems, and local youth groups and organizations. Talking with parents and organizations may also yield an amazing number of activities. In many communities, parent-initiated recreation activities are organized and maintained by one parent or a small group, and access is through word-of-mouth and email notices. Some communities and schools sponsor annual recreation and resource fairs for parents and also publish a directory of organizations with specialized or adapted activities for individuals with ASD. Faith-based activities are often another option in the community.

"Community mapping" is another way to identify/create opportunities. This is a process that facilitates identification, collaboration, and leveraging of community resources to meet the needs of an individual or group of individuals. The power of mapping is in the focus on what exists in a community and in building partnerships. For example, an adult recreation assessment conducted by the local Autism Society chapter determines that several individuals with ASD are interested in astronomy as a leisure activity. There is only one astronomy club sponsored by the planetarium at the natural history museum. After an Autism Society representative meets with the chair and members of this club, the members agree to include the individuals with ASD in the club and its activities. However, they have no experience with or knowledge about ASD. Through parent contacts, the Autism Society representative finds a provider who will prepare the individuals with ASD to participate in the activity. The provider also helps to educate the members of the club, create, and implement the necessary social and visual supports, and act as a mentor during the astronomy club activities. Since these individuals are eligible for services from their county board of developmental disabilities, the provider is paid through waiver and respite funds.

2. Plan for Participation

This might be as simple as determining the skills required and doing an environmental inventory to identify needed supports or modifications to ensure a successful experience. Participation in school or community-based activities may need to be facilitated. Some community recreation programs offer adapted recreation programs for individuals with disabilities. These may be a good starting point for participation in a typical community recreation program. Including recreation and daily living skills instruction along with travel training in IEP transition services will help individuals with ASD and their families begin to think about what skills and supports they need for successful post-school community participation. Developing these skills and interests is also a part of the self-determination process, which helps with making choices and decisions that impact quality of life.

3. Make Modifications

Access to typical community recreation activities or organizations may require a personal contact and meetings to provide awareness and education about the characteristics of ASD and how they impact an individual. Other participants need to understand the reason for certain behaviors and the modifications to be made. Additional considerations include a plan for a gradual introduction to the activity with individualized skill instruction prior to participation, a plan for the development of needed supports, and the use of an aide or mentor. If needed, arrange for a mentor or aide to instruct the individual with ASD in performing the activity prior

Regular recreation programs are not necessarily better than adapted recreation programs. Choose the program that best meets the needs of the individual with ASD.

to joining the organized activity and continuing afterward as needed. The mentor or aide may be a necessary part of this step on a short- or long-term basis, depending on the needs of the individual with ASD.

Respite funds or waivers from DD may be considered as a way to pay for ongoing supports needed to participate in community recreation for eligible individuals. For more information, contact the local county board of DD.

INDEPENDENT LIVING SKILLS

Students with ASD become adults with ASD, and they need to be taught skills to become as independent as possible. These skills include:

- Employment
- Education
- Daily living
- Recreation/leisure life/physical fitness
- Community participation
- Health services/medication management
- Communication
- Social relationships (at all levels of intimacy)
- Finances
- Citizenship

Depending on the student's vision, independent living skills may need to be included in the IEP. Specific and measurable goals and objectives related to these functional skills are often included as part of a comprehensive transition plan.

SERVING ADULTS ON THE AUTISM SPECTRUM

As communities become more aware of the strengths and potential of many adults with ASD, opportunities in the areas of employment, education, and community participation expand. However, at the same time, adults with ASD and their families report several challenges that may drive the need for intervention or support in the adult years.

POTENTIAL CHALLENGES FACED BY ADULTS WITH ASD

SOCIAL EXPECTATIONS AND SOCIAL ISOLATION

Social difficulties are frequently identified for adults with ASD as a major roadblock to successfully obtaining and maintaining employment as well as making friends or joining adult social circles. Social communication also can be a barrier for adults with ASD, who often have difficulty understanding and responding to adult-level communication. Issues such as difficulty reading facial expressions, understanding vocal intonation, or asking too many questions can prevent the adult with ASD from understanding the intent of the social messages. Difficulty understanding how to dress and use appropriate hygiene can cause coworkers and others in the community to avoid interaction or engagement with the individual with ASD. The challenges of social competence and the resulting unsuccessful social attempts can create great stress and anxiety, which can erect additional barriers.

RELATIONSHIPS: FRIENDS TO INTIMACY

Adults with ASD may have difficulty understanding social norms and demonstrating social competencies; however, this does not mean they do not want to have relationships or connections to others. Some adults report the desire to have a few close friends; others want to venture into the community and interact with many people. However, adults with ASD may have difficulty determining who is a friend, who is an acquaintance, who is a provider of service, and who might be a person who could become a life partner. These distinctions can become blurred and may cause the individual with ASD to engage in inappropriate actions. Additionally, if the situations or emotions are too confusing, the individual may choose to avoid relationships entirely, leading to loneliness or feelings of inadequacy. At the same time, others may view the person as aloof or desiring to be alone.

BECOMING “SELF-DETERMINED”

Programs for youth with disabilities should focus on, teach, support, and develop skills that lead to a self-determined adult. These skills involve decision-making, self-advocacy, understanding and sharing one’s disability/strengths and challenges (disclosure), problem-solving, self-monitoring, etc. All these skills can lead to a self-directed life and meaningful adult relationships. Adults with ASD often continue struggle with some of the core components of self-determination as they are unable to problem solve common situations or have difficulty self-monitoring. Self-determination is an ever-evolving skill that generally requires ongoing development well into the adult years. Adults with ASD may struggle to find the support necessary to further their skills. Without this support, they may retreat to the “safety” of a world with limited experiences and opportunities or may make continued poor decisions leading to disappointment, challenging behaviors, anxiety, and sometimes involvement with the justice systems (police, courts, and jails).

QUALIFYING FOR ASSISTANCE: TOO DISABLED OR NOT DISABLED ENOUGH

Adults with ASD fall along the autism spectrum in terms of their individual strengths and needs. As children, many qualify for some level of instruction or support through an IEP or 504 plan. However, as adults, qualifying for assistance from Department of Developmental Disabilities, Rehabilitation Services, Jobs and Family Services, or Social Security can be different and sometimes difficult. Adults with ASD sometimes find they are viewed as too disabled to qualify for assistance (e.g., Rehabilitation Services may not see the employability potential in some individuals with more classic autism) while others may be viewed as too competent to qualify for assistance (e.g., the Department of Developmental Disabilities may view someone with high-functioning autism as functionally capable, thus not in need of services). As a result, to obtain and maintain adult support requires knowledge of the systems, self-determination/self-advocacy skills, and the ability to present information in the "language" of the targeted agency.

RESIDENTAL NEEDS

Adults with ASD may need assistance in daily living, yet there may be wide variation in the level and type of need. Some will require 24-hour supervision and assistance, while others may need someone to very occasionally "check-in," while yet others will require some level of assistance between the two extremes. Assistance can vary from completion of daily living needs such as meals and hygiene to cleaning and budget issues. Assessment of the specific skills and needs is critical, as the skill level and needs of adults with ASD may not follow a predictable pattern.

In addition to assistance in the home, issues may need to be addressed related to the selection of a home. These include adequate personal space, housemates, and sensory issues and visual/structure supports. Individuals with ASD often require consistently available personal space such as a bedroom and/or a personal living area. Housemates may or may not be desired, but if housemates are considered, often one or two other people sharing a home is all that can be tolerated. Making the right match in housemates is critical. Consider how each person will change the environment and if this impact will be tolerated. Evaluate each person's effect on the environment in terms of visual structure, organization, noise/sounds, odors, activity/movement, respecting personal space, dietary needs, socialization, lighting, etc. Look for individuals who are compatible in multiple aspects so as to create a low-stress, quality living situation.

CO-OCCURING DISORDERS

Co-occurring medical and psychological conditions have been identified as higher risk in individuals on the autism spectrum than the typical population. As children and youth age into adulthood, these risks continue. Some of the more commonly noted risks include gastrointestinal complaints, sleep issues, and allergies. Common co-occurring diagnostic conditions include depression and anxiety. The rate of suicide or attempted suicide may be higher in individuals with ASD, especially in those with Asperger Syndrome (retrieved from http://www.iancommunity.org/cs/ian_research_reports/adults_on_the_autism_spectrum_september_2009). Increasingly, studies and reports support the likelihood that mental health conditions occur more frequently in adults with ASD, yet there exists a widespread lack of adequate resources and training related to mental health disabilities and autism. Many counselors and mental health service providers do not have sufficient training for working with clients with ASD while many providers of services to adults with autism do not have adequate training in mental health (retrieved from http://www.dsq-sds.org/article/view/1069/1234#).

ENTITLEMENT TO ELIGIBILITY: AN IMPORTANT DISTINCTION

Students with ASD who receive specialized services, accommodations, or special instruction in high school are entitled to these services and supports and must be provided the identified services in a timely manner. As an adult, this process changes from an entitlement to an eligibility process. This shift of service delivery is critical to understand when planning for adulthood.

After high school, the individual with ASD is no longer eligible for the entitlement program of IDEA or the accompanying IEP. That is, postsecondary schools, employment settings, or community environments are not mandated to honor the provisions of the IEP once a student graduates high school. Free and appropriate public education and eligibility based on an educational evaluation is no longer available. In order to receive services and supports, a young adult must qualify for services through various agencies and programs. If deemed eligible, the person may be placed on a waiting list for services, or may have to choose between available services. For example, while someone may prefer weekly services, they may only receive services once every other week, or someone who prefers individual speech therapy may receive group therapy. The take-home message is clear: High school students MUST be educated and receive supports and services that result in a meaningful and individualized program. Adults can be eligible for support, but must qualify through a set of assessments and then may still wait for those services to become available. Adults are not entitled to an education, employment, or even a home.

In order to plan for this important transition, youth, young adults, and their families should become familiar with the systems that support adult goals and the eligibility requirements of those systems. In many cases, the process of transition to adult systems can and should begin while still in high school. Adults who have not yet begun the process of eligibility are still able to apply to the variety of adult agencies in order to gain support for a more meaningful life. Support may be available in the form of financial assistance, information and/or direct service. Adults with ASD should investigate eligibility requirements and potential services of a variety of agencies by contacting a local office or representative. Important agencies to contact include Ohio Department of Developmental Disabilities, Ohio Rehabilitation Services Commission (Bureau of Vocational Rehabilitation), Ohio Department of Jobs and Family Services, and the Social Security Administration. Refer to the Agency Overview table in Appendix VI for a brief explanation of eligibility, services, and activities to assist in connecting with each agency.

STRATEGIES AND INTERVENTIONS FOR ADULTS WITH AUTISM SPECTRUM DISORDER

INTRODUCTION

As suggested previously in this section, when the youth with ASD becomes an adult, the challenges of socialization, communication, sensory processing, and other issues associated with ASD do not disappear. However, these challenges may manifest in different ways, may become more pronounced and sometimes more subtle. In order to be successful, the adult with ASD generally requires some level of intervention or support.

The following are examples of the types of strategies to consider when assisting the adult with ASD in employment, living (residential), and community settings. This is a limited list of examples. A more comprehensive review of strategies, interventions, and supports may be found in the OCALI Transition to Adulthood Guidelines at www.ocali.org

Social Competency and Employment. Social skill training and instruction may be a critical element for an individual with ASD in order to obtain or maintain a job. Needed competencies may range from the very basic social skills expected of a young adult to the complex aspects of reading social cues and accurately interpreting another's perspective or point of view.	Use a combination of verbal, visual, and demonstration to reinforce learning of new tasks and skills. • Visual/written scripts – Visual reminders of workplace rules or social norms in terms of what "to do." • Subtle cues between the individual and the support person/coworker to remind the individual when he is too close, too loud, needs to respond, etc. • Priming: The support person reminds or reviews with the individual immediately before entering the situation in which the skill is to be used (cafeteria, meeting, worksite, bathroom, etc.). • Videos of self or others performing a job or using desired social skills. • Immediate (or as soon as reasonable) reinforcement when the individual is performing or acting in the desired manner (reinforcement can range from earning a tangible reward to receiving verbal or gestural praise). • Use clear verbal/visual description and/or demonstration/modeling of job duties, rules, breaks, and expectations. This should be done prior to entering the workplace as well as during work hours. Check for comprehension by observing the individual in practice, as well as by encouraging questions.
Executive Function: Implications to Employment. Individuals with ASD may have great difficult with organization, attention, and mental planning. This challenge may affect their ability to quickly learn and to perform a job or task, even in an area where they have great talent.	• Develop lists of the items that the individual needs to take to work and home. The list, whether in pictures or words, is used as an organizational checklist. • Make available visual routines/checklists (words or pictures) of frequent routines encountered at work. They may be used extensively on some days and not at all on others. Routines to consider include Aarrival and departure routines, break or lunch activities, job routines (a person may have several jobs that can be reflected in a step-by-step visual routine), templates, or "jigs" that assist a person to complete a task by offering a visual "roadmap" throughout the task (some templates provide an example of each step of the task). • Make sure all organizational supports assist the person in understanding: the work to be completed, where it is to be completed, how much is to be completed, where to begin and end tasks, the time allotted for completing the work, and what to do when the work is finished

Repetitive Behaviors and Routines and Employment. Individuals with ASD may demonstrate ritualistic or repetitive behaviors. They may range from physical routines, to verbal repetition, to topical restrictions. In some situations, these behaviors or interests can interfere with completion of a job task or workplace plan. In other situations, they can become an asset. Some individuals develop routines that revolve around a special interest. Finding a job or career that aligns with the individual's special interests or daily routines is making the "right match." Further, allowing the individual enough time to modify routines to fit a new job can lead to successful employment.	• Some routines or ritualistic behavior are so minor that they will not bother coworkers and supervisors or interfere with the productively and accuracy of the work. For example, hand-flapping briefly and periodically during the day may not bother or interfere with an individual that is unloading trucks, sorting mail or repairing computers. • Incorporating an individual's special interests into some aspect of the job is a very individualized process. For example, John is an individual with ASD who has a special interest in trains. He has been employed successfully at the main train station of a large city answering questions about train schedules and connections. This job capitalizes on his attention to detail and indirectly supports his interest in trains by placing him in a train station.
Sensory Processing Challenges and New Living Environments. New living situations can bring about sometimes overwhelming sensory processing challenges. In addition, the stress that accompanies moving to a new environment – often with "strangers" – can exacerbate sensory sensitivities and anxiety reactions.	Assess the environment for possible areas of need such as: • Auditory stimulation. Check both inside and outside of the living situation. Do housemates prefer loud music or TV? Is there a lot of street traffic or trains running nearby? • Space. How much and what type of personal space will be available? Is it sufficient? Is it always available? • Movement activities. Can the individual walk, run, pace or engage in other movement activities on a regular basis? • Odors. Is the environment free of strong odors? Are there strong odors such as perfumes, cleaning products or soaps, foods, air fresheners, animals, flowers, etc., that the person will encounter on a daily basis? • Diet. Will the individual's diet change? Will there be foods available that she likes? Or will she be offered food that she does not care for? How will this affect the living situation? The taste, texture and smell of foods may affect some individuals with ASD very strongly. • Visual clutter or lack of visual stimulation. What does the environment look like? Will it be calming or overwhelming? Will the individual be able to modify the environment as necessary As necessary, identify specific personal space where the individual can be alone, keep comfort items, and experience limited auditory stimulation (e.g., quiet) and reduced or selected visual stimuli. • Support staff, and others who may live in the same home or apartment must respect the individual's space. • Specific and individual personal space is key to making a new living situation comfortable and acceptable. Try using rocking chairs, gliders, porch swings, and other types of chairs that have motion for their calming effect. This will allow the individual to engage in this activity in multiple settings and not be required to stay in one room in order to get desired vestibular (movement) input.

Communication and a New Living Environment. When moving to a new living arrangement, individuals with ASD will encounter unfamiliar and sometimes stressful situations and may not be able to express how they feel or ask for clarification. This is true for even the most verbal. As a result, the person may engage in unusual behaviors, shut down, or refuse to communicate. Some individuals with ASD may not know how to communicate about medical or emergency situations in the new setting. This is important to address and monitor.	• In general, use simple, concrete communication either spoken or written. • Develop individualized communication and organization supports. This may include picture schedules, checklists, calendars, timers, choice boards (pictures or words), frequent review of schedules, scripting and narratives of events that will occur, review of previous events, and teaching new vocabulary or providing new communication supports for the situations, people, and emotional expressions that encountered in the living situation. • Program vocabulary for AAC device users, as necessary, and know what backup options to use in case of an AAC failure. • Provide an instruction checklist and role-play practice for communication around medical issues and emergency situations. For example, how and who to call for broken water heater, how to gauge the level of emergency for a paper cut versus serious, deep wound, etc.
Transition from Family Home. The level of family involvement in residential planning and in the individual's adult life will vary. Some families spend a great deal of time planning for this period in their son or daughter's life. Others find that, due to unexpected life circumstances, they must help the individual locate a new living situation rapidly. Some families have more monetary and emotional resources available to enable them to participate than others. Variations in the type and level of participation may also occur based on cultural values and beliefs.	• Involve the family in the process early so family members are able to develop a relationship and trust with the supported living staff. Individuals with ASD may move into a new living setting gradually to allow time for adjustment and establishing new routines. • Be aware that the move to a new living situation is likely the most difficult and emotional transition for BOTH the family and the individual with ASD. Residential support staff and agencies should be trained not only in how to support an individual with ASD, but also in how to communicate and work with a family that is letting go of the daily care of and interaction with their now adult child. This cannot be taken lightly or reduced to a policy and given a limited timeline.
Social Challenges in the Community. Individuals with ASD are challenged to understand changing social norms from situation to situation. A lack of understanding of this social information, social interactions, and social expectations may cause the individual to act or react in an unusual manner that is difficult for others to understand. This can be especially stressful and uncomfortable for the individual with ASD when in the community where he may encounter people with little experience with ASD.	Prepare the individual for the social situation that she will experience in the community. Provide information about what to expect from others and what others will expect from her. Give specific information about what will occur in order to increase the predictability of the situation. Strategies to assist include: • Mini-schedules, Social Stories, visual prompts and cues to clarify routines and expectations • Other visual representations such as diagrams and charts or posted rules to establish routines • Visual prompts and cues • Role play • Five-Point Scale
Communication and the Community. In new/stressful situations, communication abilities may diminish or shut down completely. The individual may also have great difficulty with auditory processing. The person may appear to understand as he can repeat or "echo" a direction or information, but may not have processed the meaning of the words. Many people with ASD require visual information to understand. Auditory processing problems become more significant in unfamiliar situations. These issues may result in confusion, frustration, or even aggressive behavior.	• Teach the words or vocabulary for a specific situation. (In the community or in a recreational activity, new concepts and language may be used.) • Use the communication system the individual typically uses in other settings with appropriate vocabulary for the recreational setting. • If the individual has difficulty making decisions or choices, use a visual choice board (words and/or pictures) even for the communicator that is verbal. • Use concrete language and fewer words. Pace language, directions and instructions. • Allow up to 10 seconds of processing time when giving directions or instructions. • Provide substitute communication to replace undesired behaviors. For example, if a person is pushing and shoving people in order to get out of a crowded area, teach or provide a means for her to request to leave or to locate a larger personal space area. If the individual would like to interact with others, but is using inappropriate language or behaviors, provide words or other forms of communication that will allow her to request attention or to have a conversation.

Sensory Processing Challenges in the Community. Sensory processing challenges can be a barrier to community participation. The individual with ASD may find some of the activities or environments overwhelming or even painful when she has little control to change them. The auditory and visual environment may be intense and confusing. The pace of activities can be stressful. Space issues, such as crowded theaters, malls, and sporting events, can be intolerable.	• Search for community environments that match the sensory needs of the individual. For example, choosing to see a movie several days after its release may be a better choice than battling the crowds on opening night. Similarly, avoiding “two-for-one” nights at restaurants or arranging a lunch date for 11:00 a.m. instead of noon may be a good strategy for addressing the sensory needs of the individual. • Change/modify/eliminate the sensory triggers in the environment when possible such as loud noises or flashing lights. Auditory stimulation and personal space issues are frequently cited as areas of concern. • Screen out loud noise and bright lights with earplugs or sunglasses. Allow the use of iPods or CD players. Consider turning some lights off or using indirect lighting • Allow the person to take frequent breaks from an event. Often, as the anxiety is reduced, the person will choose to stay longer, knowing that he can move out of the difficult area, if needed. • Use timers, clocks, or reliable visual routines to assist the individual in understanding how long an activity will last and what will happen next (start a new activity, go home, etc.).

FAMILY INVOLVEMENT

This section describes the importance of collaboration between families, medical and educational professionals, service providers, and the community. It includes guidelines for ensuring high-quality communication between families and others who are invested in the success of the individual with ASD. This section is best used in conjunction with the remainder of this document. Just as the family cannot be isolated from the various aspects of their child's life, this section of the document, which addresses family participation, should not be isolated from the other parts of this document but must be considered with all other sections.

It is within the family context that the individual receives the most support and develops the skills to relate to others beyond the family. Although both families and professionals expect individuals to meet current and future goals, it is the family who will ensure consistent commitment to an individual over time.

The Family Is the Most Important Part of a Person's Life from Infancy to Adulthood

Families, teachers, medical professionals, and other professionals share the responsibility of meeting the needs of an individual with ASD. There must be ongoing collaboration and communication with family members, professionals, and community members. Optimally, it is a partnership where everyone's contributions are valuable. Families and professionals bring to the team their own perspectives, responsibilities, and strengths. Each team member should begin the planning process with the same general mission: to promote the independence and satisfaction of the individual to the extent possible throughout life's transitions (e.g., to have a job, friends and a sense of social belonging). While each team member may bring important pieces of the planning puzzle to the table, incorporating the pieces into a comprehensive plan requires the collective cooperation of the entire team. Because of the intense challenges of those with ASD, it is advantageous for all parties to freely and openly share these challenges and barriers to ensure the most creative outcomes.

As the individual with ASD gets older, aspects of family and school communication will evolve. To the extent that the individual is able, he must be included in all discussions regarding his plan (e.g., transition process, teaching priorities). As any siblings get older, they can be involved at the level they feel comfortable. Often a sibling attends the same school and can lend a unique perspective to the partnership. Peers of the individual may also offer valuable insight and support to the planning process and to the individual's well being.

Throughout life transitions, many direct service staff and professionals will come and go as part of the individual's team. But the family's role is a constant through much of the individual's life and may represent stability during the changes. Families vary greatly in their ability to meet an individual's needs. Even when an individual receives educational services in a school building, much programming may still need to occur at home; therefore, the roles and responsibilities of family members, schools, and professionals are ever changing and evolve over time.

Communication Between Home and Service Providers is Critical

Many individuals with ASD are not reliable communicators, so families may struggle to know what goes on in other settings. Conversely, teachers and other service providers often lack information about aspects of the home setting that affects the individual. Some families hire people to work with the individual at home using funding made available to them through government sources and/or their own resources. Some coordinate these services but leave the direct program design and implementation to others. Families and professionals should engage in ongoing meaningful communication about the individual with ASD and the services she is receiving in order to broker the right supports in the best way to fit the individual and the plan.

THE FOLLOWING ARE GUIDELINES FOR PROVIDING FAMILY AND PROFESSIONAL COLLABORATION.

EFFECTIVE COMMUNICATION

- Families and professionals should display mutual respect, keeping the focus on the individual and his or her strengths and needs. Communication should be kept respectful, candid, confidential, and constructive.
- Families and professionals should explore options about how communication channels can best be kept open between home, school, medical, and other outside program settings. These options will vary depending on the ability of the individual with ASD to communicate and his or her age. Commonly used methods include notebooks passed back and forth, home visits, phone calls, email, and scheduled visits by parents/caregivers.
- Families and professionals should frequently share successes, progress, and strengths of the individual with ASD, as well as problems and deficits.

TEAM PROCESS

- Families as well as the individual with ASD should always be active members of the team. The individual's wishes and desires should be considered as part of the self-determination process. Self-determination is defined as a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior.
- Families should share their hopes and dreams for their child with the professionals who share their lives (e.g., use of the vision statement on the IEP). Families should be given the opportunity to collaborate in the design of the individual's programs throughout their lifespan. This could include IFSPs, IEPs, transition planning, and adult services.
- Individuals with ASD typically require planning and training for transitioning from school to work. The transition visioning process should be encouraged before age 14.
- Families should be an integral part of the ongoing assessment of the effectiveness of the individual's program and in any modifications that will be needed.

INFORMATION AND ADVOCACY

The better informed individuals, families, and services providers are, the better partners they will be in determining what programs and services are most appropriate for themselves, their loved one, or the individual with ASD they are serving.

1. Families and professionals should be provided with opportunities to access information about ASD, education, transition, funding, agencies serving older individuals and adults, recreation options, respite, community activities, etc. Families should receive training to access and utilize these services/resources throughout the individual's passage through school to a job and adult life.

- Families should be given or referred to the Ohio's Parent Guide to Autism Spectrum Disorders from OCALI www.ocali.org.
- These Service Guidelines, also available from OCALI, should be shared with professionals working with the individual with ASD.
- Families with school-age children should be provided with a copy of "Whose IDEA Is This?" You may get this from your physician and most certainly the school. School-age children should then be referred to the Ohio Department of Education's resource page, www.edresourcesohio.org for additional educational related resources.
- Families and professionals should receive information about transition resources available from OCALI, including the Transition Guidelines and transition webcasts available on OCALI's website, www.ocali.org
- Families and professionals should visit www.ocali.org for additional resources and services such as a lending library, autism internet modules (AIM), assistive technology resource guide, and a services and supports database that will help connect them to resources and agencies in their area.
- The Autism Society has multiple chapters in Ohio that provide information and referral, support, training, etc., to individuals with autism, their families and professionals who work with them. To find an Autism Society chapter near you, visit www.autismohio.org and click on Local Chapters, or call 419-487-4726.

2. Families should be given support to navigate the bureaucracies of education, medicine, and other social services. Options include a service coordinator, case manager, written lists of resources, referrals to local ASD groups, etc.
    - The Ohio's Parent Guide to Autism Spectrum Disorders from OCALI contains an entire chapter on the service systems in Ohio, visit http://www.ocali.org/view.php?nav_id=48
    - Professionals should make sure that families have contacted their local County Board of Developmental Disabilities to determine what services an individual with autism might be eligible for outside of the education system
    - The Autism Society has multiple chapters in Ohio that provide support groups, information and referral, training, etc., to individuals with autism, their families and professionals who work with them. To find an Autism Society Chapter near you, visit www.autismohio.org and click on Local Chapters, or call 419-487-4726.
    - Families of children who may be involved in multiple service systems (i.e. developmental disabilities and mental health) may be referred to their local Family and Children First Council for case management services. To find your local county Family and Children First Council office, visit www.fcf.ohio.gov, or call 614-752-4044.

3. Prior to the age of 18, the individual's rights as an adult should be explained to both the youth and parents. The individual's rights at the age of majority (18 years of age) need to be considered and addressed. Issues related to the need for guardianship may be discussed and facilitated by the professional team.
    - The Ohio's Parent Guide to Autism Spectrum Disorders from OCALI contains an entire chapter on the futures planning, visit http://www.ocali.org/view.php?nav_id=48

4. Families should be informed of their legal status throughout their child's life. This includes the parents' rights related to the IEP process, as well as the changes that take place at the child's 18th birthday (unless guardianship is obtained through the courts).
    - Information on guardianship is available from the Ohio Developmental Disabilities Council, Guardianship in Ohio, at http://ddc.ohio.gov/Pub/Guard.htm

Professionals should not assume that individuals and families are already connected with these resources and should share with the individuals and families they work with any information or resources that may be helpful. Likewise, individuals and families should make professionals aware of these resources and any others that may be helpful. It is only when all involved work together that the best and most appropriate services will be provided.

EDUCATING THE COMMUNITY ABOUT ASD

Individuals with ASD will interface with a wide range of people, including professionals, paraprofessionals, college personnel and students, first responders, families, and community members. All of these people need to receive education on ASD and how to work with individuals with ASD in order to better serve them in the community. Ongoing training is necessary to keep all these stakeholders equipped to deal with the rapidly changing knowledge base around ASD. With up-to-date information, the community of people surrounding an individual with ASD will be able to collaborate more effectively, and individuals with ASD will be able to access needed supports and services.

Types of education programs include preservice, inservice, training for higher education faculty, and community and agency training. Identifying individuals who need training and what type of information they need should occur prior to their involvement with the individual with ASD, when possible. Training should employ evidence-based practices and focus on skill building, empowerment, problem-solving, collaboration, and decision-making. Training should encompass the entire spectrum of ASD and address lifespan issues.

Educational and awareness opportunities are essential for professional and community members who provide support and education to individuals with ASD.

In planning any training program, it is strongly recommended that facilitators identify the needs of the audience and tailor training to meet those needs. Educational and community systems, as well as parents, can often collaborate to offer comprehensive training opportunities. A variety of training approaches may be utilized. Given the individual characteristics involved with ASD, professionals and parents should have the opportunity to get hands-on, guided practice so as to be able to best apply the information that may have been offered in a lecture format.

Effective approaches include lecture, workshops, conferences (national state, local, professional), group study/discussion, undergraduate and graduate coursework, mentoring, demonstration, action research, dissemination of print and multimedia resources, interactive distance learning and Internet access, hands-on experience, guided practice, observation, and consultation.

Subjects covered could include (but are not limited to):

- Characteristics of ASD
- Evidence-based practices
- Recognition and implications of associated and co-occurring medical disorders (e.g., seizures, anxiety, attention disorders)
- Assessment methods and their relationship to interventions
- ASD as it affects an individual’s learning and developmental differences
- Adaptations, modifications, and supports
- Communication supports

- Twice-exceptional considerations
- Classroom organization and/or environment
- Current legal issues
- Current research
- Family and professional partnerships
- Functional analysis of behavior/applied behavioral analysis
- Transitions (e.g., home to school, between activities at school, school to work)
- Sensory processing problems
- Motor planning
- Writing and implementation of an effective behavior plan/behavior management
- Enhancing social interactions (recreation and leisure)
- Environmental supports to promote independence
- Understanding of play and engagement
- Available resources, including relevant journals, films, books, websites, articles, and videotapes as well as community resources like ASD support groups, etc.
- Assistive technology
- Inclusive practices
- IFSP, IEP, ISP
- Teaming and collaboration
- Employment
- Residential and supported living

Everyone in the community who is part of the individual's team should identify their specific training needs. This includes, but is not limited to, direct service providers (teachers, instructional assistants, tutors), related services professionals (speech-language pathologists, psychologists, occupational and physical therapists), administration staff (building principal, director of pupil personnel services), school community support staff (lunchroom personnel, recess monitor, bus drivers, volunteers, agency liaison), medical providers (physicians, nurses, dentists, hospital personnel, emergency and college campus health centers, therapists, paramedics, etc.), mental health service providers, parents and caregivers. Training and professional development plans have evolved into critical pieces of any effective program.

The specific content for professional development should be determined on an individual basis. Training activities should be developed based on the designated needs of the professionals/ community members and aligned with the needs of the individuals with ASD and their families.
Community members should also participate in training regarding ASD. Included in this group are private and public providers, business owners, volunteer community service organizations (Kiwanis, Jaycees, Lions, Eastern Star), community business/organizations, (churches, libraries, YMCA, YWCA, Planned Parenthood, police and social work agencies, foster care providers, fire departments). Involve community workers who would typically touch the life of a person with ASD (grocery store workers, bus drivers, department stores, malls, pharmacies, restaurants, etc.). Remember to also involve people/agencies who will be involved in providing adult services during and after transition to the community such as Ohio Rehabilitation Services Commission (RSC), Bureau of Vocational Rehabilitation (BVR), County Board of MR/DD, residential and job coaching vendors, Social Security, Medicaid, local college administrators, etc.

Information in the field of ASD is constantly changing regarding both the nature of the disability and the methodologies and treatment practices. Evidence-based practices continually evolve through research, so training should be an ongoing process.

There are several great resources for education and training, including the following:

- OCALI Autism Internet Modules: Online Internet training modules on a wide range of ASD-related topics accessible and applicable to educators, other professionals, and families who support individuals with ASD. www.autisminternetmodules.org.
- OCALI Webinars: OCALI offers a library of webinars – online seminars – on topics around ASD. www.ocali.org Click on "Webinar Archive."
- University Programs: There are a variety of university-based autism courses/programs in Ohio. These include Kent State University, Bowling Green State University, and Youngstown State University. Universities like Ohio State University and University of Toledo offer courses in disability studies. For more information on these programs, contact the university of interest.
- The Autism Society's Autism 101: Basic information about autism in an online course. www.autism-society.org Click on "About Autism" and "Autism 101."
- Autism Society of Ohio maintains a comprehensive calendar of educational seminars and conferences. www.autismohio.org Click on "Calendar."

APPENDICES

I. LEAST RESTRICTIVE ENVIRONMENT (LRE)

The following section on least restrictive environment was taken directly from Foundations in Autism Spectrum Disorders: An Online Course (Session 4) from the National Professional Development Center on Autism Spectrum Disorders at the University of North Carolina. For more information, please refer to the session website at http://www.fpg.unc.edu/~autismPDC/assets/ASDcourse_files/Session4_reading.pdf

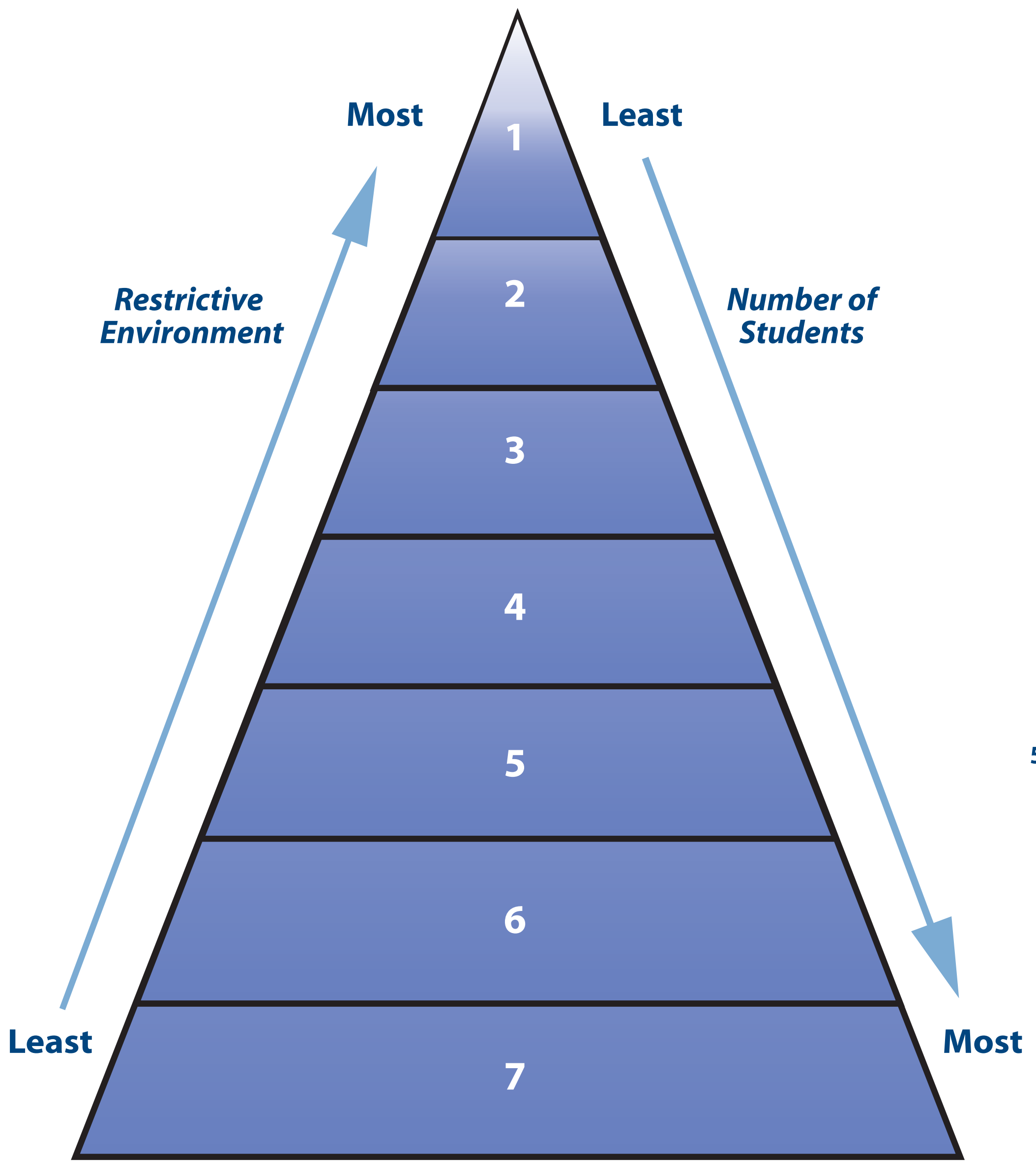
One of the foundational principles of IDEA, Part B (students with disabilities, ages 3 to 21 years) is the right of children with disabilities to have a free and appropriate public education (FAPE) and an individualized education program, or IEP (IDEA, 2004). When determining placement, based on the IEP, states and IEP teams must ensure that "to the maximum extent appropriate," children with disabilities are educated with children who are not disabled in the least restrictive environment (LRE). According to IDEA, 2004, children should not be placed in special classes, separate schools, or removed from the regular educational environment in which they would receive services if they did not have disabilities unless the nature or severity of the disability makes it impossible to achieve satisfactory results with supplementary aids and services (Assistance to States for the Education of Children With Disabilities and Preschool Grants for Children With Disabilities; Final Rule, 34 C.F.R., 2006). Placement decisions should be determined on an annual basis, based on the IEP, and should be "as close as possible to home" for the child. In other words, children with disabilities should be placed in the schools they would attend if non-disabled. When identifying the least restrictive environment, potential harmful effects and the quality of services should be considered. Children should not be removed "from education in age-appropriate regular classrooms solely because of needed modifications in the general education curriculum" (Assistance to States for the Education of Children With Disabilities and Preschool Grants for Children With Disabilities; Final Rule, 34 C.F.R., 2006). Also, to the maximum extent appropriate, children with ASD should be able to participate in extracurricular services and activities (including meals, recess, art, music, physical education).

Infants and toddlers with disabilities under Part C of IDEA must receive early intervention services that meet their developmental needs, as determined by the individualized family service plan team and that "to the maximum extent appropriate, are provided in natural environments, including the home, and community settings in which children without disabilities participate" (IDEA, Public Law 108-446, Section 635, 2004, p. 103). Providing early intervention services "in a setting other than a natural environment that is most appropriate, determined by the parent and the individualized family service plan team, occurs only when early intervention cannot be achieved satisfactorily for the infant or toddler in a natural environment" (IDEA, Public Law 108- 446, Section 1400, 2004). The notion of "social inclusion" is based on knowledge about the development of social behavior, which is extraordinarily complex. Fox and colleagues (1997) note that friendships and other relationships cannot be formed without potential partners, and comfort in social and public situations cannot be achieved without familiarization and repeated exposure. Children and youth with ASD can benefit from programs that are individualized, carefully planned and implemented, and that use naturalistic learning opportunities with typically developing peers. Such programs offer many opportunities for individuals with ASD to learn from typically developing peers and to practice new skills in a variety of settings (e.g., lunch, recess). Learning opportunities with typically developing peers in naturalistic settings are especially important for children and youth with ASD because they will be more likely to generalize skills to every day settings. To ensure that individuals with ASD are successfully included in least restrictive and natural environments, regular and special education teachers and other team members must form collaborative relationships to adapt and modify the curriculum, environment (e.g., use of visual supports), and communication/language used during interactions (e.g., use of simple language and gestures). Adaptations in curriculum, environment, communication/language, and activities are needed for successful inclusion.

The belief that children and youth with ASD are best served in inclusive and least restrictive environments is supported by the National Research Council's (2001) statement regarding educational placements: "to the extent that it leads to the specified educational goals (e.g., peer interaction skills, independent participation in regular education), children should receive specialized instruction in settings in which ongoing interactions occur with typically developing children." Individual skills should be targeted to provide optimum benefit from interactions with typically developing children and to provide the foundation for success in natural or inclusive settings.

Reference:

Hatton, D., Shaw, E., & Cox, A. W. (2008). Guiding principles for interventions and education. In A. W. Cox, D. Hatton, G. A. Williams, & R. E. Pretzel (Eds.), *Foundations of autism spectrum disorders: An online course* (Session 4). Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders, FPG Child Development Institute, The University of North Carolina. Retrieved from http://www.fpg.unc.edu/~autismPDC/assets/ASDcourse_files/Session4_reading.pdf



Adapted from Heward, W. (2009). *Exceptional children: An introduction to special education.* Columbus, OH: Merrill Publishing Company.

1. Homebound or Hospital
Student receives special education and related services at home or in a hospital.

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2. Residential School
Student receives special education and related services from specially trained staff in a residential facility in which children receive care or services 24 hours a day.

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3. Separate school
Student receives special education and related services under the direction of specially trained staff in a specially designed facility (day program).

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4. Separate Classroom
Student attends a special class for most or all of the school day and receives special education and related services under the direction of a special education teacher.

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5. Regular classroom with supplementary instruction & services
Student receives a prescribed program under the direction of the regular classroom teacher and also receives instruction and related services within the regular classroom from the special educator and/or paraeducator.

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6. Classroom with consulation
Student receives a prescribed program under the direction of the regular classroom teacher, who is supported by ongoing consultation from the special educators.

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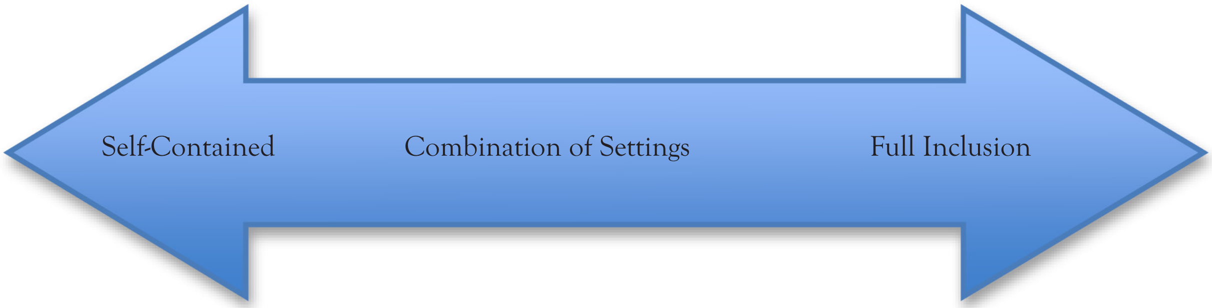
7. Regular classroom
Student receives a prescribed program under the direction of the regular classroom teacher.

II. INCLUSION

The following section on inclusion was taken directly from *Foundations in Autism Spectrum Disorders: An Online Course* (Session 5) from the National Professional Development Center on Autism Spectrum Disorders at the University of North Carolina. For more information, please refer to the session website at http://www.fpg.unc.edu/~autismPDC/assets/ASDcourse_files/Session5_reading.pdf

Children and youth with ASD often receive services in one or more settings from a continuum of placement options. Intervention settings that are available to children and youth with ASD vary across states and school districts; however, decisions about placement should be based upon federal legislation that requires school systems to provide services to children and youth with disabilities, including autism spectrum disorders, within the least restrictive environment, or LRE (IDEA, 2004). The figure below illustrates the continuum of intervention settings that are commonly available for children and youth with ASD. On one end of the continuum, children and youth with ASD can receive services in settings that are fully inclusive. That is, they spend all of their time in settings that include typically developing peers. Self-contained classrooms and programs are at the other end of the continuum. In these settings, children and youth with ASD receive intervention alongside other children with ASD or, in some cases, children and youth with a variety of disabilities. In the middle of the continuum, children and youth with ASD receive services in a combination of inclusive and self- contained settings. Across the age span, children and youth with ASD and their families may have an assortment of placement options that are available to them; however, these options depend upon a variety of factors including (1) resources with available communities and school districts, (2) the developmental level and learning needs of individual children and youth with ASD, and (3) family priorities regarding their child's education.



When determining placements for individual children and youth with ASD, IEP teams identify the option that is most appropriate for each child/student based on IEP or IFSP goals and objectives and on IDEA 2004 guidelines for serving children in natural and/or least restrictive environments. For all children and youth with ASD, IEP teams should begin by looking at full inclusion and the types of supplementary aids and services that might be needed to support successful inclusion. If fully inclusive settings do not seem appropriate even with additional services and supports, team members should continue to discuss settings that include opportunities for interactions with typically developing peers until the most appropriate placement option is agreed upon by all team members. This decision-making process helps teachers, families, and other team members determine the most appropriate intervention setting and LRE for individual children and youth with ASD. In the following section, descriptions of the various intervention settings that might be available to children and youth with ASD are provided.

Inclusive Programs and Classrooms

Inclusive programs and classrooms are settings in which children and youth with ASD receive services with typically developing peers. The rationale for educating children and youth with ASD within inclusive classrooms is that they have more opportunities to observe and model skills and behaviors exhibited by typically developing peers (Karabinos, 1997; Owen-DeSchryver, Carr, Cale, & Blakely-Smith, 2008). Inclusive settings are available from early childhood through high school; however, full inclusion becomes less common as children with ASD progress through elementary school. For older children and adolescents, opportunities for inclusion often take place during activities such as lunch, recess, and gym. Family child care centers, child care centers, and early intervention centers often provide opportunities for young children with ASD to interact with typically developing peers (Craig, 1997; Golbeck & Harlan, 1997; Karabinos, 1997).

Related services professionals typically provide support to children and youth with ASD on-site either in the classroom or through a pullout model (e.g., student receives related services in a room separate from the classroom). Embedded intervention, or the use of naturalistic intervention strategies implemented within the context of daily routines and activities, often is used to help young children with ASD learn and develop new skills. With older students, specific strategies (e.g., portable visual schedules, books on tape, visual supports) are used to improve students' auditory, visual, social, and physical engagement (Goodman & Williams, 2007). The quality of services and strategy selection will vary, however, according to the resources available across school districts as well as practitioners' expertise and experience in providing intervention and/or education to children and youth with ASD (Odom & McEvoy, 1988).

Self-Contained Programs and Classrooms

Self-contained special education classrooms may be selected as settings in which children and youth with ASD receive services. These classrooms often are housed in public schools and are available to children starting in early childhood through high school. Children and youth with ASD who receive most of their services in self-contained special education classrooms may have limited access to typically developing peers (Odom & McEvoy, 1990). In early childhood self-contained classrooms, emphasis often is placed on social and communication skills development, while academic skills often are the primary focus for older children and adolescents (Gottwald & Pardy, 1997). Children and youth with ASD may be taught in special education classrooms that are designed specifically for students with ASD or in classrooms serving students with a variety of disabilities (often called cross categorical classes). Some children and youth with ASD who receive services within self-contained settings may have opportunities to interact with typically developing peers during certain classes and settings such as physical education, music, art, and lunch. During these types of activities, teachers often focus on promoting social interactions with peers, implementing strategies to enhance communication and social skills, and promoting appropriate behavior in normalized settings (Zhang & Griffin, 2007). The services and placement options available to students with ASD and their families vary across school districts.

Resource Rooms

For elementary-aged children and adolescents with ASD, educational services may be provided in resource rooms. Resource rooms are often the settings where students with ASD receive supplemental one-on-one or small group instruction that helps them keep up with their peers in inclusive settings (Yang, Schaller, Huang, Wang, & Tsai, 2003). Resource rooms may be selected for students who do not need to be in self-contained classrooms all day. Some students with Asperger's syndrome, for example, may attend social studies, science, and math classes with typically developing peers, but may need the support provided by a resource room teacher for communication/language based subjects such as language arts and reading.

Other Intervention Settings

Home-based intervention. Toddlers with ASD often are served in homes because homes are considered the child and family's primary context for learning and relationship development. Within this setting, early interventionists use family-centered support to complete assessments, collaborate with parents and other team members to develop Individualized Family Service Plans (IFSP), provide intervention to children with ASD, and work with parents to implement strategies at home when practitioners are not present (Mott, 1997). As children transition to preschool services, a classroom-based program often becomes the primary setting for intervention.

The home as an intervention setting traditionally has been associated with infant and toddler services because it is considered the LRE for this age group; however, young children as well as older children and adolescents with ASD also can receive services within this context. Often, the focus of these services with older students is to increase family involvement, augment children's language and communication skills, support families in addressing prioritized needs, and assist families in the use of resources available to them in the home setting (Powell, 1990). A variety of intervention programs also can be applied within the home for children and youth with ASD across the age span that often are not provided by local schools and districts. For example, some behavioral treatment models (e.g., discrete trial training) are implemented by trained interventionists in homes to help children and youth acquire target skills and to supplement the instruction that is being provided in other intervention settings (Sheinkopf & Siegel, 1998).

Community resources for middle and high school students with ASD. Many middle and high school students with ASD receive services outside of the school setting. For instance, some communities and school districts offer opportunities for students with ASD to take part in social skills group interventions, job coaching programs, or extracurricular activities in clinic-based or mental health settings. These types of settings help bridge the transition from school to community, while also helping adolescents with ASD acquire essential skills that will be needed as an adult (Barry, Klinger, Lee, Palardy, Gilmore, & Bodin, 2003; Mandell, Walreth, Manteuffel, Sgro, & Pinto-Martin, 2005; Orsmon, Krauss, & Seltzer, 2004).

Reference:

Cox, A. W., Pretzel, R. E., & Neitzel, J. (2008). Factors that affect learning and development. In A. W. Cox, D. Hatton, G. A. Williams, & R. E. Pretzel (Eds.), Foundations of autism spectrum disorders: An online course (Session 5). Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders, FPG Child Development Institute, The University of North Carolina. Retrieved from http://www.fpg.unc.edu/~autismPDC/assets/ASDcourse_files/Session5_reading.pdf

III. FUNCTIONAL BEHAVIORAL ASSESSMENT

The goal of a functional behavior assessment (FBA) is to identify those environmental factors that influence the display of appropriate and challenging behaviors. FBA can also identify the purpose or reinforcers that maintain behaviors by using systematic methods and empirical procedures. The information gleaned from this process is used to develop an intervention plan to increase the frequency of more desirable behaviors and decrease the frequency of undesirable behaviors.

When an FBA is necessary in school, the IEP team must take part in completing the assessment. One member of the team must be a professional, trained and experienced in FBA and the development, implementation, and evaluation of behavior intervention plans.

The FBA typically involves interviews with service providers or others knowledgeable about the individual, completion of forms and checklists, and observation of the individual in his or her natural environment. This information helps the team develop hypotheses about to the function(s) of the behavior of concern and the role of environmental factors that are influencing the behavior.

[Note: A more specialized and objective procedure may also be used. An FBA is the systematic manipulation of environmental antecedent variables and consequences to directly test hypotheses and establish a causal relationship between a behavior and factors that initiate, influence and maintain the behavior.]

The following problem-solving model was drawn largely from the *Ohio Model Policies and Procedures for the Education of Children With Disabilities* (2000), Appendix F: Technical Assistance for Implementation of the Behavior Intervention. It may be used to develop and evaluate the appropriateness of a behavior intervention plan.

Step 1: Discuss the vision or future planning for the student.

- What is the long-term vision for the student?
- What are the behavior barriers interfering with reaching or progressing toward the vision?

Step 2: Discuss present levels of performance.

- What strengths does the student have?
- Where is the behavior most/least likely to occur?
- How often does the behavior occur?
- How long does the behavior (event) last?
- How long a period of time typically exists between a request and when the student begins to respond?
- How extreme is the behavior?
- For each occurrence, with whom is the behavior most/least likely to occur?
- What is the general response of others to the behavior?
- How does the student react to others' responses?

Step 3: Write a statement clearly describing the behavior of concern, taking into account information obtained in Step 2.

Step 4: Collect additional data to fully and completely understand the nature and cause of the behavior of concern.

- What usually happens in the student's environment, instruction, and relationships just before and just after the behavior of concern occurs?
- What other information is relevant to the behavior of concern (e.g., medication, medical condition, sleep pattern, diet, schedule, relationships)?
- How does the student typically communicate wants and needs?
- What is the student's behavior history?
- What interventions and modifications have been found to be successful and unsuccessful with regard to the behavior of concern?
- What are the academic, curricular, self-care, and social skills that make up the student's profile?
- For what purpose(s) does the student use the behavior of concern (e.g., power, control, avoidance/escape, attention)?
- What is the student trying to communicate with the behavior?

Step 5: Identify and prioritize the needs of the student for the IEP (or for the behavior plan if the individual does not have an IEP) by considering the following:

- Which behaviors are likely to cause harm to the student l or others?
- Which behaviors impede the learning of the student or others?
- Which behaviors occur most frequently?
- Which behaviors are most intense?
- Which behaviors, when effectively addressed, will have a positive impact on other behaviors of concern?

Step 6: Identify measurable goals, objectives, and assessment procedures.

- What behavior could replace and serve as a more acceptable alternative to the behavior of concern?
- Does the replacement behavior serve the same function to the student as the behavior of concern?
- Will mastery of the goals/objectives enable the student to more fully participate in the general education curriculum?
- Have positive intervention strategies been demonstrated to be ineffective prior to the proposed use of more restrictive intervention procedures?
- Are the goals/objectives stated in terms that the student understands?
- Do the goals/objectives help build confidence and competence, promote independence and self-advocacy, and help develop personal responsibility?
- Were cultural differences taken into account when the goals/objectives were developed? Can the goals/objectives in the behavior plan be generalized to other settings?

Step 7: Identify measurable goals, objectives, and assessment procedures.

- Have criteria been established for each goal/objective for measuring success in relationship to baseline data?
- What methods will be used to evaluate whether there is an increase in the use of replacement behavior and decreased use of the behavior of concern?
- Has the team considered how frequently it will evaluate progress based on the frequency, intensity, and severity of the behavior of concern?

Step 8: Identify needed services.

- What environmental changes need to be considered?
- What accommodations, intervention techniques, and supports are needed for the student to learn and use the replacement behavior?
- Do the interventions rely on logical consequences instead of punishments?
- If necessary, have several interventions been designed to meet the diverse and unique needs of the student?
- Does research support using the selected interventions with the behavior of concern?
- How will stakeholders (including family members) be trained and supported in implementing the behavior intervention plan?
- Can the plan be held up to ethical standards?

Step 9: Determine the least restrictive environment.

- Are the replacement behaviors outlined in the intervention plan appropriate for the environments in which the plan will be implemented?
- If the team has determined that the student will be removed, have strategies been included in the behavior intervention plan for reintroducing the student l to the general education environment?
- Has the team considered interventions that will increase the likelihood that the student will be included with nondisabled peers?
- Have interventions been tried and documented prior to placement in a more restrictive environment?

Step 10: Periodically evaluate outcomes, taking into account the following questions:

- Was the plan effective in increasing the use of the replacement behavior and decreasing the behavior of concern?
- Were the interventions appropriately applied and documented?
- Is the behavior intervention plan being implemented as designed?
- Were adjustments made as needed during the implementation phase of the plan?
- Were parents, staff, the student l, and outside agencies involved in the review and revision of the behavior intervention plan?
- Has the intervention plan been implemented for a sufficient length of time?
- Has the intervention plan been continued, revised, or eliminated as a result of the periodic review?

IV. CHOOSING INTERVENTION OPTIONS

Questions for Parents/Caregivers to Ask and Consider Regarding Specific Interventions and/or Programs:

- What characteristic behaviors of ASD am I trying to target? Does the intervention that I am considering target these characteristic behaviors?
- Are there any harmful side effects associated with this intervention? What are the potential risks?
- Are there any activities, foods, etc., that will be restricted during this intervention and will this be possible to implement?
- Does the method or program meet the unique strengths/challenges/goals for my son/daughter?
- What positive effects do I hope to see from this intervention?
- What are the short-term and long-term effects I am hoping to gain from this intervention?
- Can this intervention be integrated into my son/daughter's current program?
- What is the cost of the intervention? Will my insurance company cover the cost? If not, how will I pay for the intervention?
- How much time does the intervention require, and can I realistically devote the time required to the intervention?
- Have I thought how this intervention will affect my entire family?
- Has this intervention been validated scientifically?
- Have I researched the intervention and collected information about this from a variety of sources?
- Was I able to interview other parents and professionals about the intervention? If so, list stated pros, cons, and other areas of interest.
- Do proponents of the treatment claim that this procedure can help nearly everyone? If so, this should be seen as a "red flag" to slow down and be more careful in consideration of this technique.
- What do my pediatrician and other professionals involved with my son/daughter think about the intervention's appropriateness?
- Are there alternatives that are: less restrictive? Better researched?

V. PLANNING TOOLS

Two planning tools have been developed recently that are useful for identifying appropriate interventions and implementing them across environments. A brief description of each is provided on the following pages. The tools are the Comprehensive Autism Planning System (CAPS) and the Ziggurat Model.

INTRODUCTION TO PLANNING TOOLS

The Comprehensive Autism Planning System is designed to provide an overview of a student's daily schedule by time and activity as well as the supports needed during each period according to activity and task demands. Following the development of the student's IEP, all educational professionals who work with the student are involved in development of the CAPS. This allows the team to identify which supports are needed for each activity in order to promote student success and facilitate achievement of the identified goals.

The Ziggurat Model offers a process for developing and implementing interventions for students with ASD. It is a five-level, tiered approach that progresses in a hierarchical order. Teams may use this framework of intervention design to select appropriate evidence-based practices that align with identified needs and strengths of the target student grounded in an understanding of the characteristics of ASD. Other models for intervention area available based on the method chosen for treatment. These planning tools are mentioned because they were developed by practitioners in the school setting and are easily implemented in that environment as well as home and community environments.

The Comprehensive Autism Planning System (CAPS)

Time	Activity	Targeted Skills to Teach	Structure/ Modifications	Reinforcement	Sensory Strategies	Communication Social Skills	Data Collection	Generalization Plan

ZIGGURAT WORKSHEET

Ruth Aspy, Ph.D., and Barry G. Grossman, Ph.D.

BEHAVIOR/AREAS OF CONCERN	**FOR SPECIFIC INTERVENTION PLAN** Operationalized Behaviors 👁 👁 👁 👁	**SELECTED UCC ITEMS** # # # # # # # # # #	**CHECK ALL THAT APPLY**		
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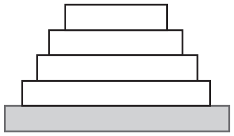 Sensory and Biological	Sensory and Biological Intervention:				
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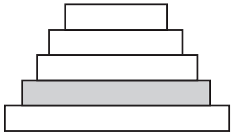 Reinforcement	Reinforcement Intervention:				
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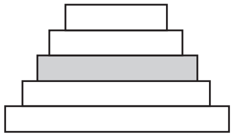 Structure & Visual/Tactile Supports	Structure/Visual/Tactile Support Intervention:				
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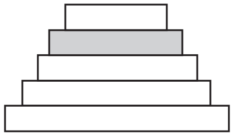 Task Demands	Task Demand Intervention:				
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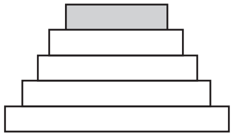
 Skills to Teach	Skill Intervention:				
	Underlying Characteristics Addressed				

From Aspy, R., & Grossman, B.G. (2008). *The Ziggurat Model*. Shawnee Mission, KS: Autism Asperger Publishing Company (www.asperger.net). Used with permission.

VI. AGENCY TABLE

Overview of Agencies

The following is a brief guide to four important agencies or programs that support individuals with disabilities and their families. The selected agencies/programs that are reviewed in this table include:

- Ohio Department of Developmental Disabilities (DODD)
- Ohio Rehabilitation Services Commission (BVR and BSVI)
- Social Security Administration
- Medicaid (Ohio Department of Jobs and Family Services)

Additional agencies and programs may also be helpful; however those highlighted in this table are often the "gateway" to eligibility for other programs.

Information included in the overview is organized into three categories:

1. **Eligibility**: Who is eligible for the agency services? What are the general criteria?
2. **Services**: If eligible, what are some of the services that one could access. Focus is on the services/funding available when transitioning into adulthood.
3. **Action Steps**: Activities to consider at each age that leads to linkages with the targeted agency.

Please note that this is general information and should not be considered to constitute a complete review of programs or policies. Contact your state or local agency for answers to specific questions and individual guidance.

AGENCY ELIGIBILITY, SERVICES, and REFERRAL OVERVIEW

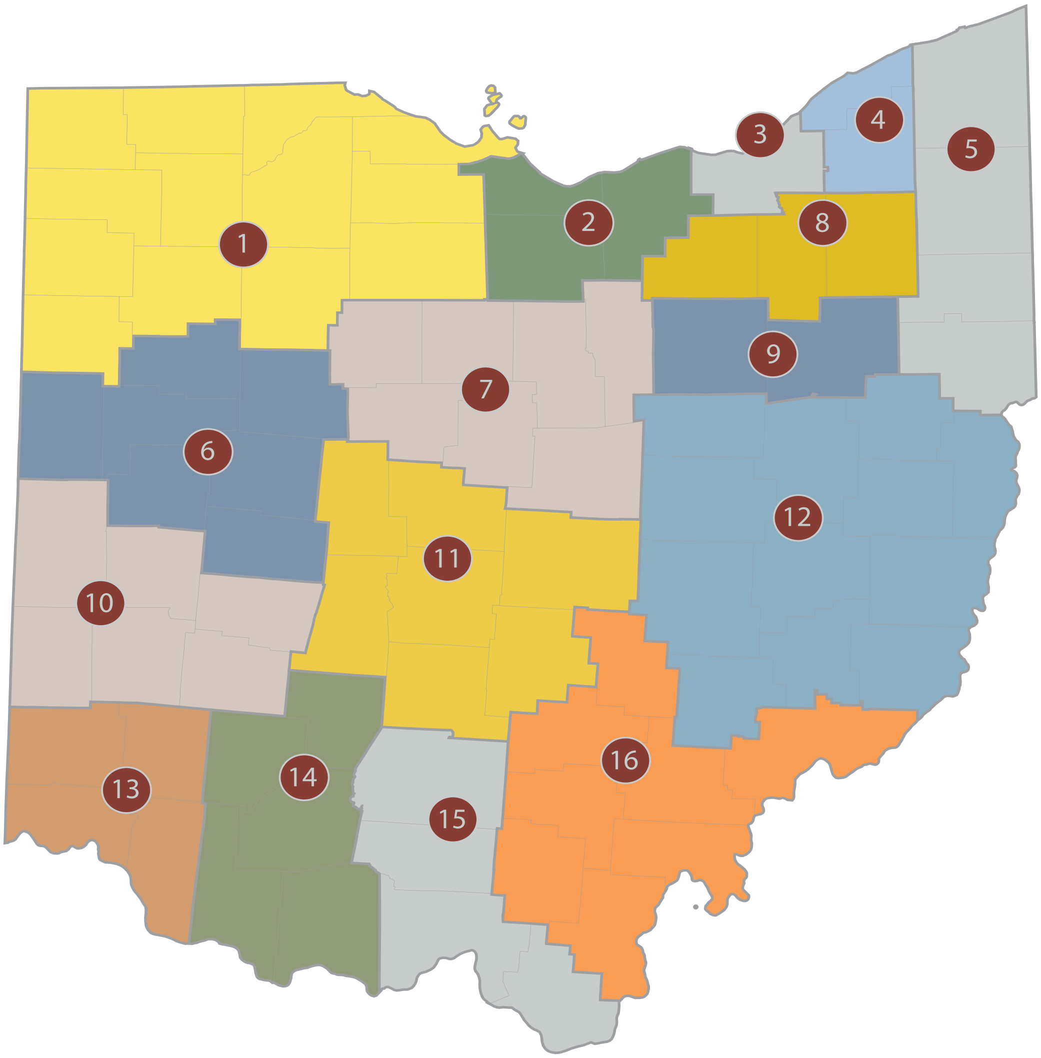
AGENCY to CONTACT (see Resource section for contact information)

	Ohio Department of Developmental Disabilities (DODD)	**Ohio Rehabilitation Services Commission (ORSC) (BVR and BSVI)**	**Social Security Administration (SSA)**	**Medicaid and Medicaid Buy-In (Ohio Department of Job and Family Services (ODJFS))**
Who Is Eligible **Type of Service. Support or Programs**	**Who Is Eligible:** Individuals of any age who have a developmental disability/delay that results in functional limitations may be eligible for support through DODD. “Functional limitations” refers to the ability to play, work, learn, etc. Eligibility is determined by use of Children’s Ohio Eligibility Determination Instrument (COEDI) and Ohio’s Eligibility Determination Instrument (OEDI) assessment tools. (Those under age 3 are determined eligible using other documentation.) The needed level of support is also determined individually through the use of a variety of assessment tools and information. **What Are Possible Services:** Services are provided through the local county board of DD where the individual lives. Services may come directly from the local DD or through a contracted service provider. Services are individualized and can vary from county to county. Services can provide support for employment, learning, leisure, and living needs. Services that may be available include: case management/coordination of services, therapies, transportation, respite, behavior support, vocational services (such as job development, job training, job coaching), sheltered workshops, adult day activities, residential supports, DODD also administers two Home and Community Based Medicaid Waivers (Level 1 and I/O) that provide funding for services beyond basic Medicaid coverage.	**Who Is Eligible:** Transition-age students and adults who have an employment goal and (a) have a visual, physical, or mental disability that interferes with the ability to work, (b) are able to benefit from the services ORSC is able to provide, and (c) require these type of vocational services to get or keep job. While many people may be eligible for ORSC services, ORSC prioritizes individuals identified as “most significantly disabled,” and others may be placed on a waiting list or referred to other agencies. **What Are Possible Services:** Services from ORSC must be focused on employment outcomes, and individuals should have a defined employment goal. Services may include assistance to attend an educational program, vocational evaluation or assessment, personal and work adjustment training, vocational training, therapies, job development, job placement, equipment, adaptive technology, counseling and/or a case manager to help organize and guide an employment plan. Services (other than case management) are generally contracted rather than provided directly by ORSC employees.	**Who Is Eligible:** SSDI (Social Security Disability Insurance) is a financial support (benefit) that may be available to people who cannot work because they have a medical condition that is expected to last at least one year or result in death. SSI (Supplemental Security Income) is financial support for individuals with have low income, few resources and who are elderly or disabled. Individuals of all ages may be eligible to receive SSI. In general, the individual must have a disability that results in significant functional limitations and (if over age 18) a disability that prevents the person from earning wages that are able to provide for living expenses (referred to as SGA). This means there are both “disability” criteria and “financial” criteria. For those under 18, family income is considered when determining eligibility. For those 18 and over, only the individual income is considered. **What Are Possible Services:** SSI Services include a monthly financial allocation (SSI), which may be as much as $674/month. Those on SSDI eventually receive Medicare coverage. Also important are “work incentive” programs offered by SSA to allow individuals to work and maintain their benefits. SSA works with employment networks to provide incentives to employ individuals with disabilities through the Ticket to Work program. SSA supports benefits counseling through Work Incentives Planning and Assistance (WIPA) Agencies to help individuals understand the programs. SSA is complex, but offers options to support many people.	**Who Is Eligible:** Many programs are available through ODJFS that target different populations, including individuals with disabilities. For individuals with disabilities, ODJFS uses the SSA definition of disability. To be eligible, one must also be a U.S. citizen and have a social security number. There is also a financial eligibility. Individuals cannot earn more than $589/month and have resources of no more than $1,500 (with some deductions and exceptions). For Medicaid Buy-In for Workers with Disabilities: the income level may be as high as $2,257/month and resources up to $10,580 (financial requirements are for the year 2010). **What Are Possible Services:** Medicaid (administered by ODJFS) provides health care coverage for those who meet financial eligibility (those unable to work) and for those who are disabled, working, and still need to buy into the Medicaid program to maintain their health coverage. Medicaid also has a program of “Home and Community-Based Waivers” that allow for extended support services beyond the basic Medicaid. For people with developmental disabilities, these are administered by DODD and are limited.

When to Contact or Take Action	Ohio Department of Developmental Disabilities (DODD)	Ohio Rehabilitation Services Commission (ORSC) (BVR and BSVI)	Social Security Administration (SSA)	Medicaid and Medicaid Buy-In (Ohio Department of Job and Family Services (ODJFS))
Birth to age 13 **(As early as possible, but it is never too late)**	Make referral for eligibility assessment: COEDI – Ages 3 to 16 OEDI – Age 16 and older Make application for Individual Options (I/O) and Level One Medicaid Waivers. Request that county DODD service support administrator (SSA) or case manager) attend IEP meetings.	Families, schools, and individuals can begin to learn about ORSC services and intake procedures prior to the need to make a referral. Visit ORSC website, review materials related to successful employment outcomes and strategies to improve employment success.	If family meets financial eligibility criteria for SSI (Supplemental Security Income), refer at any age to request determination of disability for student. If student receives Medicaid, student will also likely meet the financial eligibility test to receive SSI (in Ohio, individuals must apply separately for Medicaid and SSI).	If family meets financial eligibility refer at any time. If eligible for DODD services, apply for Medicaid Waivers. These include I/O and Level One Medicaid Waivers through local County Department of DD.
Age 14 -15	Refer for eligibility if this has not been done. If SSA is not already attending IEP meetings, request attendance as part of transition to adulthood team.	Explore possible services offered by ORSC and how these align with student outcomes and needed support services. Team discussion will help determine if a referral is appropriate or if additional information is needed prior to making a referral decision. - Make referral to ORSC as transition age youth in need of support to reach employment goals, especially if student exiting high school within three years.		

Ages 15-19 Two years prior to graduation or leaving high school	Refer for eligibility if this has not been done (see above). Request SSA attend IEP and transition planning meetings if not done previously. As necessary services and supports for adult life are identified, refer for specific service needed. Example: Job development, job coaching, personal care, transportation, supported residential environment.	Refer if appropriate (see above) to ORSC for eligibility assessment. Invite ORSC counselor to join and/or communicate with the IEP team on a regular basis.	Explore the variety of programs available through SSA, including work incentive programs. Visit SSA website. Attend SSA trainings. Discuss with ORSC and DODD and school-based transition team.	If student with a disability is 16 or older and working, student may qualify for Medicaid Buy In for Workers with a Disability (if income level is too high). If not done previously and student is eligible for DODD services, make referral for I/O and Level 1 Medicaid Waiver though Department of DD.
Ages 15-19 Six to one month prior to turning 18		If no referral before this time and in need of employment assistance, review eligibility criteria, employment goals, and ORSC services, and make referral to ORSC as appropriate.	Contact SSA the month of the student's 18th birthday to set up an appointment to file for SSI benefits (prepare application to SSA for SSI for student. Base this application on student income; not family). Collect all necessary paperwork/documents/ etc. As close to age 18 as possible, complete application with SSA. Consider development of PASS (Plan to Achieve Self Support) or IRWE (Impairment Related Work Expenses) for student with employment available when leaving school.	One month prior to 18th birthday, student should prepare Medicaid application as adult (not as family member). At age 18, submit prepared application.
ADULTHOOD Following Graduation/ Leaving High School	If referral for eligibility not made, make at this time. If eligible, but have not requested adult SSA, request at this time If eligible, but have not applied for/ requested Level 1 or I/O waiver or other adult services (job development, coaching, personal care assistance, etc.), request now.	Referrals may be made at any time. Cases may be reopened if an adult is jeopardy of loosing a job or has lost a job	If adult has not applied for SSI, apply as soon as possible. If adult is working and has not considered the use of work incentives, contact SSA or Disability Program Navigator through the One-Stop System in local area to review these possibilities.	If adult has not applied for Medicaid, Medicaid Waivers, etc, apply as soon as possible. If adult is working and has not applied for Medicaid Buy-In for Disabled Workers, consider application.

VII. OHIO'S STATE SCHOOL SUPPORT TEAM REGIONS



The 16 State Support Teams (SSTs) are responsible for the regional delivery of school improvement, literacy, special education compliance, and early learning and school readiness services to districts using the Tri-Tier Model, a differentiated technical assistance structure of support based upon need. The teams work through the Office for Exceptional Children, Office of Literacy, Office of Early Learning and School Readiness, and the Office of Field Relations by providing technical assistance and professional development. The SSTs include staff and services formerly provided by the Special Education Regional Resource Centers (SERRCs) and the Regional School Improvement Teams (RSITs).

Also available in each SST region are special education and family contacts.

Basic contact information for each region as well as each region's individual website is provided below and on the following pages.

For more detailed contact information for each regional SST, you can also visit http://education.ohio.gov Click on "Improvement" across the top, then "State Support Teams" on the left and then State Support Team Contact Information and download the PDF which features detailed contact information.

Region 1: Northwest Ohio
State Support Team Region 1
2275 Collingwood Boulevard, Suite C
Toledo, Ohio 43620
1.800.346.8495
419.720.8999
www.sstr1.org

Region 2: Northern Ohio
State Support Team Region 2
1885 Lake Avenue
Elyria, Ohio 44035
440.324.5777
www.loraincountyesc.org

Region 3: Cuyahoga
State Support Team Region 3
Educational Service Center of Cuyahoga County
5811 Canal Road
Valley View, Ohio 44125
216.524.3000
http://esc-cc.org/public/rs/sst3/index.cfm

Region 4: East Shore
State Support Team Region 4
30 South Park Place, Suite 150
Painesville, Ohio 44077
440.350.2563
www.sst4.org/public/sst/index.cfm

Region 5: Northeast Ohio
State Support Team Region 5
5555 Youngstown-Warren Road, Unit 696
Niles, Ohio 44446
1.800.776.8298
www.sst5.k12.oh.us

Region 6: West Central Ohio
State Support Team Region 6
1045 Dearbaugh, Suite #1
Wapakoneta, Ohio 45895
1.800.686.2945 (Ohio only)
419.738.9224
www.sst6.org

Region 7: North Central Ohio
State Support Team Region 7
1495 West Longview Avenue, Suite 200
Mansfield, Ohio 44906
1.800.424.7372 (Ohio only)
419.747.4808
www.ncoesc.org/SST/Directory.htm

Region 8: Mid-Eastern Ohio
State Support Team Region 8
420 Washington Avenue
Cuyahoga Falls, Ohio 44221
330.945.5600
http://meoserrc.cybersummit.org

Region 9: Lincoln Way
State Support Team Region 9
2100 38th Street NW, Door #6
Canton, Ohio 44709
1.800.733.7732
330.492.8136
www.sst9.org

Region 10: Miami Valley
State Support Team Region 10
4801 Springfield Street
Riverside, Ohio 45431
www.mcescregionalcenter.com

Region 11: Central Ohio
State Support Team Region 11
2080 Citygate Drive
Columbus, Ohio 43219
614.542.4120
www.cositpd.org

Region 12: East Central Ohio
State Support Team Region 12
205 N. 7th Street
Zanesville, Ohio 43701
1.877.778.1274
740.455.6700
www.sstregion12.org

Region 13: Southwestern Ohio
State Support Team Region 13
11083 Hamilton Avenue
Cincinnati, Ohio 45231
513.674.4274
www.sst13.org/Pages/default.aspx

Region 14: Hopewell
State Support Team Region 14
5350 West New Market Road
Hillsboro, Ohio 45133
937.393.1904
www.ohioregion14.org

Region 15: Pilasco-Ross
State Support Team Region 15
411 Court Street Room 105
Portsmouth, Ohio 45662
740.354.7761
www.scoesc.k12.oh.us

Region 16: Southeastern Ohio
State Support Team Region 16
507 Richland Ave
Athens, Ohio 45701
1.800.882.6186
740.594.4235
www.athensmeigs.com/region_home.aspx?schoolID=10

VIII. FREQUENTLY USED TERMINOLOGY

Adaptive Physical Education (APE): A specially designed physical education program for a child with developmental disabilities. Traditional exercise forms, assessment techniques, and training protocols are adapted to meet the specific needs of a person with developmental delays or disabilities.

Adult Services: Refers to the many agencies and programs that are provided to adults with specific needs such as, disability, health, and income.

Americans with Disabilities Act (ADA): An equal opportunity, civil rights law to protect any person who has an impairment that substantially limits major life activities.

Applied Behavior Analysis (ABA): The science in which procedures derived from the principles of behavior are systematically applied to improve socially significant behavior to a meaningful degree and to demonstrate experimentally that the procedures employed were responsible for the improvement in behavior (Cooper, Heron, & Heward, 1987)

Asperger Disorder: One of the five Autistic Spectrum Disorders; "similar in most areas to Autism Disorder, except: no clinically significant delay in language; no clinically significant delay in cognitive development, self-help skills, adaptive skills, and curiosity about environment" (from the Diagnostic and Statetistical Manual of Mental Disorders (4th ed.) [DSM-IV] criteria).

Assistive Technology: Any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional capabilities of individuals with disabilities. (Taken from the Electronic and Information Technology Accessibility Standards/Section 508 of Rehabilitation Act.)

Attention Deficit Disorder (ADD): A term previously used to describe an individual with significant attention problems and minimal hyperactivity. This term is now represented by ADHD-inattentive type.

Attention Deficit Hyperactivity Disorder (ADHD): The core components are a short attention span for mental age, impulsivity (acting without consideration of consequences), distractibility (inability to maintain focus due to irrelevant external or internal stimuli) and motor over activity that ranges from fidgetiness to continuous movement. Although all children with this disorder have difficulty with attention span, not all have significant hyperactivity. Therefore, these features have been categorized into a combined type (both inattention and hyperactivity-impulsivity), an inattention type and a hyperactivity-impulsivity type. ADHD must be differentiated from other disorders that affect attention, such as anxiety disorders, depression, learning disabilities and seizures.

Auditory Integration Training (AIT): A technique used to attempt to desensitize children with ASD to certain frequencies of sound(s) that they show sensitivity (Rimland & Edelson, 1995).

Autism: See section on Definition of Autism page 11.

Autism Scholarship Program: A program established through the Ohio Department of Education (ODE) that gives qualifying students with ASD the option of attending a special education program, other than the one operated by the school district of residence, to receive services outlined in the student's individualized education program (IEP). Monies used to pay the providers come from the district's share of special education funding from the state.

Autism Society: Founded in 1965 by Dr. Bernard Rimland, Dr. Ruth Sullivan, and many other parents, it is now the nation's leading autism organization devoted to improving the lives of all individuals affected by autism. See their website www.autism-society.org for more information.

Autism Society of Ohio (ASO): State chapter of Autism Society. www.autismsociety.org

Autism Speaks: Founded in February 2005 by Bob and Suzanne Wright, grandparents of a child with autism. Autism Speaks is now one of the largest science and advocacy organizations. See their website www.autismspeaks.org for more information.

Autistic Disorder: The presence of markedly abnormal or impaired development in social interaction and communication and markedly restricted repertoire of activity and interests. Delays with onset occur prior to age 3. Manifestations of the disorder very greatly, depending on the individual's developmental level and chronological age.

Backward Planning: A stepwise planning process that starts with desired goals and plans backward to the current level of functioning and support.

Bureau of Children with Medical Handicaps (BCMH): A bureau within the Ohio Department of Health that assists families of children with special health care needs in identifying and receiving medical services.

Bureau of Disability Determination (BDD): A bureau within the Ohio Rehabilitation Services Commission that provides the determination of eligibility for services.

Bureau of Early Intervention Services: A bureau, located within the Ohio Department of Health, that is the lead agency in administering the Help Me Grow program in Ohio. The bureau's job is to ensure that services are provided to eligible infants and toddlers, families have access to services that are essential to their child's health and development, and necessary training is available to the professionals who work with children and families.

Bureau of Services for the Visually Impaired (BSVI): A bureau within the Ohio Rehabilitation Services Commission that provides vocational rehabilitation services to eligible consumers whose primary or secondary impairment is legal blindness or other visual impairment.

Bureau of Vocational Rehabilitation (BVR): A bureau within the Ohio Rehabilitation Services Commission that provides vocational rehabilitation services to eligible customers whose primary/secondary impairment is physical, mental, and/or psychological.

Children's Ohio Eligibility Determination Instrument (COEDI): A tool used to determine the eligibility of county board of DD services. The COEDI is to be used for children age 6 and older and is not to be used for school placement. (www.odmrdd.state.oh.us/childyouth/3_21/OEDI-COEDI.htm)

Content Standards: Describes the knowledge and skills that students should attain, often called the "what" of "what students should know and be able to do." They indicate the ways of thinking, working, communicating, reasoning and investigating, and important and enduring ideas, concepts, issues, dilemmas, and knowledge essential to the discipline. (www.education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&Topic RelationID=1696&ContentID=1929&Content=88486)

Customized Employment: A process for individualizing the employment relationship between a job seeker or an employee and an employer in ways that meet the needs of both. It is based on a match between the unique strengths, needs, and interests of the job candidate with a disability and the identified business needs of the employer or the self-employment business chosen by the candidate. (Source: http://www.dol.gov/odep/tech/employ.htm)

Developmental Disability (DD): A term used to describe a severe, chronic disability that is characterized by all of the following:

- Attributable to a mental or physical impairment or a combination of mental and physical impairments, other than a mental or physical impairment solely caused by mental illness.
- Manifested before the age of 22
- Likely to continue indefinitely
- Results in one of the following:
  - in the case of a person under age 3, at least one developmental delay or an established risk
  - in the case of a person at least 3 but under age 5, at least two developmental delays or an established risk
  - in the case of a person age 6 or older, a substantial functional limitation in at least three of the following areas of major life activity, as appropriate for this age: self-care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, and if the person is at least age l6, capacity for economic self-sufficiency
- Causes the person to need a combination and sequence of special, interdisciplinary, or other type of care, treatment, or provision of services for an extended period of time that is individually planned and coordinated for the person.

Diagnostic and Statistical Manual for Mental Disorders, 4th Edition (Text Revision) (DSM-IV-TR) – American Psychiatric Association, 2000: A classification system used by mental health professional to classify mental disorders. The DSM is currently in the process of revision and changes are to be finalized by 2013. For the revised fifth edition of the DSM, there are proposals for changes in the diagnosis of neurodevelopmental disorders, including ASD (see www.dsm5.org).

Discrete Trial Training (DTT): A training regimen in which a discrete trial is the basic teaching unit. In general, a discrete trail consists of a single instructional exchange between the instructor and the child, which includes a verbal directive (e.g., "say da"), a child's response, (e.g., "da"), and the instructor's feedback to the child (e.g., "Good"). DTT most often involves drills consisting of several reinforced trials. It is utilized to teach a variety of skills.

Dual Diagnosis: An individual with an intellectual disability that has a co-occurring mental health diagnosis.

Due Process: Legal safeguards to which a person is entitled in order to protect his or her rights.

Early Intervention (EI): Specialized services provided to infants and toddlers, birth to 3, who are at risk for or are showing signs of developmental delay.

Ecological assessment: Assessments that look at individual needs and interest in all current and, in some cases, future environments.

Employment Networks (EN): An employment network of providers participating in the Social Security Administration's Ticket to Work Program. The EN provides or coordinates employment, vocational rehabilitation, and support services to SSA beneficiaries using their "tickets" to work. In return, SSA pays the EN for employment outcomes achieved by the beneficiaries assigning their "tickets" to the EN.

Enclave: A form of supportive employment where a group of no more than eight persons with disabilities work in an integrated employment setting often with professional supervision.

Evaluation Team Report (ETR): Report that summarizes the results of the multi-factored evaluation of a student for special education services. It includes assessment information, reasons for the assessment, summary from all evaluators, documentation, eligibility determination and planning information.

Evidence-Based Practice: Refers to preferential use of mental and behavioral health interventions for which systematic empirical research has provided evidence of statistically significant effectiveness as treatments for specific problems.

Free and Appropriate Public Education (FAPE): Special education and related services that (a) have been provided at public expense, under public supervision and direction, and without charge; (b) meet the standards of the state educational agency; (c) include appropriate preschool, elementary, or secondary school education in the state involved; and (d) are provided in conformity with the individualized education program (IEP) required by PL 105-17, Section 614(d).

Follow-Along-Services: In supported employment, this term refers to services and supports provided to a worker with a disability after job training is completed.

Functional Behavior Assessment (FBA): An approach that incorporates a variety of techniques and strategies to diagnose the causes of and to identify likely interventions intended to address problem behaviors. A functional behavioral assessment looks beyond the overt topography of the behavior, and focuses upon identifying biological, social, affective, and environmental factors that initiate, sustain, or end the behavior in question. For more information, see Appendix III. (www.fape.org/idea/what_idea_is/osher/ideaiep.htm - necessary)

Guardianship: A legal relationship created when an individual is named in a will or assigned by the court to take care of minor children or adults who have been declared incompetent. Guardianship and guardian rights vary from state to state. (www.cincinnatichildrens.org/svc/alpha/c/special-needs/resources/guardianship.htm)

Impairment Related Work Expense: Expenses related to the items a person with a disability needs because of his/her impairment in order to work; may be deducted during the eligibility process for SSDI or SSI.

Individual Earned Income Exclusion: Income that can be excluded for an individual under age 22 in calculating SSI benefits.

Individualized Education Program (IEP): A written statement for each child with a disability that is developed and reviewed in accordance with PL l05-l7.

Individualized Family Service Plan (IFSP): The interaction, collaboration, and partnership between parents and providers resulting in a written plan that lists outcomes for individual families and their infant or toddler and describes resources/services and their coordination that will support those outcomes. The purpose of the IFSP is to identify and organize formal and informal resources to facilitate families' goals for their children and themselves. The IFSP is a promise to children and families that their strengths will be recognized and built on, that their needs will be met in a way that is respectful of their beliefs and values, and that their hopes and aspirations will be encouraged and enabled.

Individuals with Disabilities Education Act (IDEA): Amended most recently in 1997 by PL 105-17. Often called "IDEA 97." The federal law that mandates public education for children who have disabilities.

Incidental Teaching: A teaching method in which child-directed, naturally occurring activities are used to provide instruction to the child.

Inclusion: The practice of providing a child with disabilities an education within the general education program with nondisabled peers. Supports and accommodations may be needed to ensure educational success in this environment.

Intellectual Disability: A disability characterized by significant limitations both in intellectual functioning and in adaptive behavior that covers many everyday social and practical skills. This disability originates before the age of 18. (www.aamr.org/content_100.cfm?navID=21)

Internship: The opportunity for a student or trainee to do a job, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification.

Intervention Specialist: A special education teacher whose responsibilities include planning, organizing, coordinating, and implementing the services identified on the individualized education program for students with disabilities.

Job Carving: A technique in advanced supportive employment programs where a job is divided into components that can be done by a person with a severe disability (taking a single component away from multiple jobs and creating a job with a single component for a single doer).

Job Coach/Job Trainer: In supportive employment, generally a paraprofessional who provides on-site job training and supports to a worker with a disability. Sometimes used interchangeably with “employment specialist.”

Job Shadowing: The practice of allowing a individual to observe a real work setting to determine her interest and to acquaint her with the requirements of the job.

Local Education Agency (LEA): Governmental agency that supervises the provision of public instruction or educational services to members of a community. Responsible for public preschool, elementary, middle, secondary, vocational, special education, and/or independent study programs in a city, county, township, school district, or other political subdivision.

Least Restrictive Environment (LRE): The educational setting that permits a child with disabilities to derive the most educational benefit while participating in a regular educational environment to the maximum extent possible (Coleman, 1993).

Mainstreaming: The selective placement of special education students in one or more “regular” education classes.

Multi-factored Evaluation (MFE): An evaluation conducted by a multidisciplinary team in more than one area of a child’s functioning so that no single procedure will be the sole criterion for determining an appropriate educational placement.

Natural Environment: The place where events or activities usually occur for children who are typically developing.

Natural Supports: Refers to the use of person, practices, and things that naturally occur in the environment to meet the support needs of the individual.

No Child Left Behind: Federal legislation passed in 2001 that enacts the theories of standards-based education reform, which are based on the belief that setting high standards and establishing measurable goals can improve individual outcomes in education. The act requires states to develop assessments in basic skills to be given to all students in certain grades, if those states are to receive federal funding for schools. The act does not assert a national achievement standard; standards are set by each state.

Office for Exceptional Children (OEC): Operates under the Ohio Department of Education and administers state and federal funds; coordinates and administers programs to improve outcomes for students with disabilities and gifted students; implements a statewide monitoring and complaint-resolution system designed to assess district/educational agency compliance with applicable federal and state laws and regulations; and provides technical assistance to districts and educational agencies around issues of compliance with the Individuals with Disabilities Education Improvement Act.

Ohio Center for Autism and Low Incidence (OCALI): OCALI is a statewide clearinghouse of information on ASD and low-incidence disabilities. It is charged with working with Ohio service systems to improve their capacity to address the needs of individuals with ASD and their families through professional development and technical assistance. OCALI collaborates on projects and programs to improve outcomes for individuals with ASD and those that provide support for their families in accessing information and services they need.

Ohio Department of Education (ODE): The state agency responsible for overseeing the provision of educational programs for all students. www.ode.state.oh.us

Ohio Department of Health (ODH): The state agency responsible for overseeing and administering public health programs to protect and improve the health of Ohio citizens. www.odh.ohio.gov

Ohio Department of Developmental Disabilities (DODD): The state agency responsible for overseeing a statewide system of supports and services for people with developmental disabilities and their families. www.dodd.ohio.gov

Ohio Eligibility Determination Instrument (OEDI): A tool used to determine eligibility of county board of DD services for individuals age 16 and older.

Ohio Rehabilitation Services Commission (ORSC): The state agency that partners with Ohioans with disabilities to achieve quality employment, independence and Social Security disability determination outcomes through its Bureau of Vocational Rehabilitation (BVR), Bureau of Services for the Visually Impaired (BSVI), and Bureau of Disability Determination (BDD). www.rsc.ohio.gov

Paraprofessional: Trained classroom aides who assist teachers; may include parents. (Source: Heward, W. (2009). Exceptional children: An introduction to special education. Columbus, OH: Merrill Publishing Company.)

Plan for Achieving Self Support (PASS): A savings account that can be excluded from income and assets of persons with disabilities to allow them to save up for something would make them self sufficient (e.g., college fund). A person who is eligible for SSI gets a chance at PASS.

Person-Centered Planning: An ongoing problem-solving process used to help people with disabilities plan for their future. In person-centered planning, groups of people focus on an individual and that person's vision of what they would like to do in the future. This "person-centered" team meets to identify opportunities for the focus person to develop personal relationships, participate in their community, increase control over their own lives, and develop the skills and abilities needed to achieve these goals.
(www.pacer.org/tatra/resources/personal.asp)

Pervasive Developmental Disorder (PDD): A group of conditions with a common dysfunction in the domains of socialization and communication. Prevalence is 1-2/1,000 with no significant relation to race or socioeconomic status. This category includes Autistic Disorder, Asperger Disorder, Rett Syndrome, Childhood Disintegrative Disorder, Pervasive Developmental Disorder-Not Otherwise Specified. The core components are qualitative impairments in socialization, communication and imaginative play and repetitive behaviors/restricted interests with onset by age 3 years.

Positive Behavior Support (PBS): An empirically validated, function-based approach to eliminate challenging behaviors and replace them with prosocial skills. Use of PBS decreases the need for more intrusive or aversive interventions (i.e., punishment or suspension) and can lead to both systemic as well as individualized change. (www.nasponline.org/resources/factsheets/pbs_fs.aspx)

Postsecondary Education: Any education beyond the high school level. Examples include vocational schools, community colleges, undergraduate and graduate institutions.

Pragmatic Language: The social use of language: the use of language and communication behaviors needed to interact effectively and appropriately with others.
(www.nldline.com/pragmati.htm)

Procedural Safeguards: Legal protections (including mechanisms or procedures) available to children, their parents, and their advocates to protect their rights when dealing with agencies and providers of early intervention services.

Resource Room: Classroom in which special education students spend part of the school day and receive individualized special education services. (Source: Heward, W. (2009). Exceptional children: An introduction to special education. Columbus, OH: Merrill Publishing Company.)

Response to Intervention (RtI): A framework that brings together general, special, compensatory and gifted education with the goal of providing a comprehensive and integrated system of education to meet the needs of ALL students. The primary purpose of RtI is to improve student outcomes by ensuring that all students receive high quality instruction and intervention matched to their academic, social-emotional and behavioral needs.

School to Work Programs: These programs refer to general education secondary programs developed under the School-to-Work Opportunity Act of 1994. Include career education, work-based instruction experiences, and efforts to connect individuals with vocational and post-school programs.

Self-Contained Classroom: Special class/learning center program option that may include placement in a special class/learning center program located in a public school building; separate school in the school district; public school program located in a separate facility; county board of and developmental disabilities facility; state residential school for the deaf or the blind; or a state institution.

Sensory Integration (SI): Therapy that is directed toward improving how an individual's senses process stimulation and work together to respond appropriately.

Sensory Motor Processing: The process by which a person takes in information from the environment (through sensory receptors), interprets/integrates the information to form some meaningful concept (not necessarily conscious thought), and then uses that sensory information in a meaningful way through a motor output (action).

Social Security Disability Income (SSDI): An income support payment administered by the Social Security Administration that is provided to wage earners who are no longer able to work because of their disability or to the unmarried adult child of a wage earner who is disabled, retired, or deceased.

Special Education: Specialized instruction designed for the unique learning strengths and needs of the individual with disabilities, from age 3 through 22 years of age.

State Support Team (SST): Provides regional services and assistance to school districts, educational service centers, community schools, early childhood centers, and families in four areas, school improvement, literacy services, early learning, and school readiness, focused on compliance and high-quality instruction through technical assistance and professional development. Ohio has 16 SST regions.

Structured Teaching: Structured teaching is a method of instruction based on TEACCH (Treatment and Education of Autistic and related Communication handicapped Children) approach. It is a system of teaching that focuses on organizing environments in order to reduce anxiety, stress, and frustration by utilizing visual cues and addressing challenging behaviors in a proactive manner. Structured teaching is also a system of developing appropriate activities at all skill levels as well as helping individuals with autism understand what is expected of them.

Supplemental Security Income (SSI): An income support payment administered by the Social Security Administration that is provided to children with disabilities and adults who are disabled and whose income and assets fall below a prescribed level after accounting for Social Security work incentives.

Supported Employment: A form of employment where training is done at the job site and ongoing supports are provided to maintain employment. Supported employment is meant for persons with the most severe disabilities. Supported employment jobs are in integrated settings and may consist of individual placement, mobile work crews, or enclaves.

Transition (early childhood): The process of planning for the transition from early childhood programs to kindergarten and/or first grade.

Transition (school to adulthood): The process of planning for a student's life after graduation and when they are leaving the school system.

Transition Planning Inventory: An inventory approach that focuses on individual skill and support needs in the areas of employment, future education, daily living, leisure activity, community participation, health, self-determination, communication, and interpersonal relationships.

Waiver, Waiver Funds: The standard of care in the United States for qualifying individuals with developmental disabilities is institutionalization. Individuals can “waive” institutionalization and receive waiver funds to support services in the community. Waivers in Ohio are administered by the departments of Developmental Disabilities and Job and Family Services.

Work Incentives: A number of Social Security work incentives that allow a person to exclude a part of his or her income to maintain eligibility for SSI or SSDI. Includes PASS, IRWEs, Individual Earned Income Exclusion, and extended eligibility for Medicaid.

Work Study: Jobs developed by the high school whereby the student receives credit toward graduation.

IX. RESOURCES

Internet-Webliography

Note: This is not a comprehensive list of Internet resources. It is provided as a general guideline for the types of Internet resources that are available

Autism Society www.autism-society.org

Founded in 1965 by Dr. Bernard Rimland, Dr. Ruth Sullivan, and many other parents, it is now the nation's leading autism organization devoted to improving the lives of all individuals affected by autism. Website lists general information about ASD, discusses ASD through the lifespan, and provides information on current research and programs.

Autism Society of Ohio (ASO) www.autismohio.org

The state chapter of the Autism Society. Website provides information about local chapters throughout the state as well as current news such as studies, state updates, autism advocacy, local events, and other resources.

Ohio Center for Autism and Low Incidence www.ocali.org

Website provides information about ASD, low-incidence disabilities, family services including a services and supports database, assistive technology, and transition. Also posts autism Internet modules (AIM), which provide readers with news and research in the field.

Ohio Parent's Guide to Autism Spectrum Disorders www.ocali.org/view.php?nav_id=48

This is a manual that provides an overview of ASD. The manual was written by Ohio parents of children with ASD and covers topics ranging from defining ASD, screening and diagnosis, interventions, advocacy, and future planning.

AUTISM ORGANIZATIONS

Autism National Committee www.autcom.org

An organization that is dedicated to the "social justice for all citizens with autism." Website contains their newsletter, book reviews, updates on political and judicial decisions concerning individuals with ASD, as well as other advocacy information.

Autism Network International www.ani.ac

An international advocacy organization that is run by individuals with ASD. Website features information about group memberships, news about their conference and retreat, links to members' websites, and articles written by members.

Autism Speaks www.autismspeaks.org

Founded in February 2005 by Bob and Suzanne Wright who were grandparents of a child with autism. Autism Speaks is now one of the largest science and advocacy organizations. Website provides information about autism, autism diagnosis, treatment, parent involvement, information about their walk events, as well as other community information and events.

Families for Early Autism Treatment (FEAT) www.feat.org

This is a non-profit organization that consists of parents, family members, and medical professionals dedicated to education, advocacy, and support for individuals with ASD. Website provides information about their organization, their events, meetings, and other various resources such as public agencies and counseling services.

National Autism Association (NAA) www.nationalautismassociation.org

Mission is to help with the most urgent needs of the autism community. Website provides information about autism, how to join NAA, local chapter information, information about research projects, as well as the latest research news and other various resources.

Oasis @ MAAP (More Advanced Individuals with Autism) http://aspergersyndrome.org

Website was created as a resource for families, medical professionals, and individuals with Asperger Syndrome, autism, and PDD/NOS. The website contains articles, educational resources, conference information, and recommended reading about Asperger Syndrome, autism and PDD/NOS.

AUTISM RESEARCH

Autism Research Institute www.autism.com/ari

An international clearinghouse and research organization that conducts research on effective treatments for ASD. Responsible for publishing the Autism Research Review International, a quarterly newsletter that contains information about autism research. Website provides information for families, educators, providers, as well as individuals with Autism.

Center for the Study of Autism www.autism.org

Provides information on the Autism Collaboration's "Parents as Partners" Research Initiative. Also links with several other autism websites.

Interactive Autism Network (IAN) www.ianproject.org

An online project that brings together people affected by ASDs and researchers in a search for answers.

Organization for Autism Research (OAR) www.researchautism.org

Organization that uses applied science to provide information and answer questions about autism. Website provides information for families and friends, professionals, service providers, autism news and events, as well as links to other resources.

AUTISM SELF-ADVOCACY/SOCIAL NETWORKING

Auties.org www.auties.org

Provides self-employment ideas and networking resources for people with ASD.

Autistic Self-Advocacy Network (ASAN) www.autisticadvocacy.org

A non-profit organization run by individuals on the spectrum. ASAN is starting a project to provide mentors to assist in developing social support.

GRASP www.grasp.org

A support group network with education and information clearinghouse.

Wrong Planet www.wrongplanet.net

A web community designed for individuals (and parents) with Asperger Syndrome, autism, ADHD, or other PDDs.

ASSISTIVE TECHNOLOGY

Assistive Technology Alliance www.ataccess.org

A national and international network of technology resource centers, agencies, individuals, companies, and other organizations that support access to technology and technology tools for individuals with disabilities. Website lists information about membership, access to their online community, as well as other resources that are located under their Resource HUB.

Assistive Technology of Ohio (AT Ohio) www.atohio.org

A federally funded nonprofit organization housed at The Ohio State University dedicated to providing information and resources on assistive technology in Ohio.

Georgia Project for Assistive Technology (GPAT) www.gpat.org

A branch of the Georgia Department of Education that supports school systems in providing assistive technology services to students with disabilities. They hope by increasing student access to assistive technology they can improve student achievement, productivity, independence, and inclusion. Website includes information on assistive technology resources and devices.

Ohio Center for Autism and Low Incidence (OCALI) www.ocali.org

A part of OCALI's website is devoted to assistive technology information such as defining assistive technology and explaining the types of assistive technology. The website also has information about resources such as an assistive technology vender list and OCALI devices for loan.

Quality Indicators for Assistive Technology (QIAT) www.qiat.org

Offers information about current and historical lists of Quality Indicators for Assistive Technology, information about how to join and participate in their listserv, as well as information on summits and presentations related to the field.

YAACK: AAC Resource Guide http://aac.unl.edu/yaack/index.html

Provides information about augmentative and alternative communication (AAC). Website features three main sections, including how to get started, choosing an AAC system, and then teaching AAC systems and AAC related skills.

BOOKSTORES/VIDEOS

Autism Asperger Publishing Company (AAPC) www.asperger.net

Publisher that specializes in books, videos, and other interactive products about ASD. Website provides information about conferences, AAPC authors, professional development, as well as an online bookstore.

Autism Related Books www.autism-resources.com/books.html

Over 1,500 books about autism and Asperger Syndrome. The lists provide information on nonfiction and fiction autism books as well as books for children and general books of interest.

Autism Society of America Bookstore www.autism-society.org and click on "About Autism" then "Helpful Resources" and scroll down to online bookstore

Online bookstore that contains books recommended by Autism Society members and professionals.

Future Horizons www.fhautism.com

Future Horizons sells books and DVDs and hosts conferences about autism and Asperger Syndrome. Website features an online store, information about attending conferences, as well as information about finding professionals.

Jessica Kingsley Publishers www.jkp.com

Publisher that specializes in books about autism and Asperger Syndrome. Their books are for parents, professionals, and academics, and include topics ranging from health to social work to education and parenting. Website allows you to purchase books online.

Michigan Autism Society www.autism-mi.org then click on resources and then recommended reading

Features book, DVD, and product reviews on autism related materials.

North Carolina Autism Society www.autismbookstore.com

A nonprofit online bookstore featuring books on ASD-specific topics such as education, sensory issues, social skills, and behavior.

Stanfield Publishing, Specialists in Special Education www.stanfield.com

Publisher that offers books about children with special needs as well as information about special education for parents, educators, professionals, and schools systems.

Woodbine House www.woodbinehouse.com

Publisher specializing in books about children with special needs.

COMMUNITY PARTICIPATION

Essential Tools: Community Resource Mapping www.ncset.org/pubLications/essentialtools/mapping

A 52-page publication on implementing the four-step process of community mapping.

Picture Set www.setbc.org/pictureset

Collection of downloadable visual supports that can be used by students for both receptive and expressive communication in the classroom, at home, and in the community.

UNC (University of North Carolina) Project Autism Guidelines Manual: Recreation Services for People with Autism www.unc.edu/depts/recreate/crds/autism/table.html

Lists information about conducting an assessment for recreation and teaching the skills needed for both the activity and social participation.

EMPLOYMENT

LEAP: Linking Employment, Abilities & Potential www.leapinfo.org/programs

Offers a center for personal assistance, community employment, youth transition, public policy center, and assistive technology center.

Ohio Employability Life Skills Assessment www.edresourcesohio.org/transition/resources.php?id=2

Assessment tool in two versions – one for teachers and one for parents to complete. Permission has been given for use of this assessment developed by the Ohio Department of Education.

FEDERAL AGENCIES

Centers for Disease Control and Prevention: Autism Information Center www.cdc.gov/ncbddd/autism/index.html

Website that features ASD facts, data and statistics, articles, as well as information about screening, diagnosis, and treatment.

Congressional Information www.congress.org

Website that provides nonpartisan news and information about public policy issues.

Federal Office of Special Education Programs (OSEP) www.ed.gov/about/offices/list/osers/osep/index.html

Part of U.S. Department of Education providing leadership and financial support to assist states and local districts in improving results for children with disabilities. Website provides information on grants and funding, legislation, research, statistics, national studies and current programs and projects.

National Institute of Health http://health.nih.gov/topic/Autism

Website lists various links about autism information and is divided between other National Institute websites such as the National Institute of Mental Health and the National Institute of Deafness and Other Communication Disorders.

U.S. Department of Education www.ed.gov

Website lists information on funding, policy, research, education initiatives, and other information.

U.S. House of Representatives www.house.gov

Website provides information about legislation currently in the House, information about bills, amendments, debates, voting information, as well as information on how to write your representative.

U.S. Senate www.senate.gov

Features current Senate information as well as information about Senate art, history, visitor information, as well as a list of all the senators and their contact information.

OTHER DISABILITIES ORGANIZATIONS

American Association of People with Disabilities (AAPD) www.aapd.com

Founded in 1995 to unite individuals with all different disabilities, including families, friends, supporters, and advocates. Website offers information about programs, membership, advocacy, and disability resources.

ARC of Ohio www.thearcofohio.org

Works to ensure that children and adults with disabilities enjoy equal rights and opportunities. Website provides information about seminars, news, and how to join.

ARC of the United States Home Page www.thearc.org

Provides services and supports to families and individuals with disabilities. The organization includes over 140,000 members as well as 730 state and local chapters.

Children and Adults with Attention-Deficit Disorder/Hyperactivity Disorder (CHADD) www.chadd.org

A non-profit membership organization founded in 1987 to serve individuals with AD/HD and their families. Produces a bi-monthly magazine and sponsors an annual conference. Website offers information about AD/HD, membership, conferences, and training.

Council for Exceptional Children Ohio www.cec-ohio.org

A professional organization for special education in Ohio that advocates for the rights of individuals with exceptionalities. Website offers information for teachers, parents, benefits, legislation, and events.

Easter Seals www.easterseals.com

Provides services to children and adults with disabilities and special needs. Website features information on services, advocacy, events and locations.

Family Support Center on Disabilities www.familysupportclearinghouse.org

Funded by the Administration on Developmental Disabilities, Administration for Children and Families, and the U.S. Department of Health and Human Services. A resource for individuals with disabilities and their families.

Learning Disabilities Association www.LDOnLine.org

A website that provides information on learning disabilities and ADHD for parents, teachers, and professionals. Website provides multimedia information, a learning store, and a finding help section.

National Alliance on Mental Illness Ohio (NAMI) www.namiohio.org

A grassroots organization that advocates for mental health issues. Website features information about programs, advocacy, publications, and other resource/links.

National Information Center for Children and Youth with Disabilities (NICHCY) www.nichcy.org

Provides information on disabilities through infancy to youth as well as information on IDEA and No Child Left Behind.

National Institute for People with Disabilities (NIPD) www.yai.org

Promotes the awareness and understanding of people with disabilities, as well provides information to families, professionals and individuals on services and advocacy. Website provides information on NIPD's mission and culture, videos, history, as well as information about the people they serve.

National Organization on Disabilities www.nod.org

A non-profit organization that focuses on increasing employment opportunities for individuals with disabilities.

National Parent Network on Disabilities www.php.com/node/9553

Provides information and resources to parents of children with special needs. Website features information on events, support, services, and other resources.

Ohio Coalition for the Education of Children with Disabilities www.ocecd.org

A statewide, non-profit organization. The coalition is comprised of over 40 parent and professional disability organizations that serve the families of children with disabilities in Ohio. Website provides information about training, conferences, projects, history, as well as information on how to donate and join.

Ohio Developmental Disabilities Council (ODDC) www.ddc.ohio.gov

A planning and advocacy group that promotes inclusion for individuals with developmental disabilities. Information about membership, events, publications, and products.

Ohio Family and Children First www.fcf.ohio.gov

Information for Ohio families who seek government services. Website provides information on coordinating systems and services, as well as initiatives and other resources.

Ohio Legal Rights Services www.olrs.oh.gov

Information about legal rights and information from grants to business regulations and local tax information, as well as state jobs and business and professional licensing for Ohio residents.

Ohio Speech and Hearing Association (OSLHA) www.ohioslha.org

A non-profit membership organization of speech-language pathologists, audiologists, and students. Website features information on membership, licensure, education, resources, and advocacy.

Technical Assistance Alliance for Parent Centers - The Alliance www.taalliance.org

A partnership of one national and six regional parent technical assistance centers funded by the U.S. Department of Education's Office of Special Education Programs (OSEP). Their purpose is develop, assist, and coordinate over 100 Parent Training and Information Centers (PTIs) and Community Parent Resource Centers (CPRCs).

The Association for Persons with Severe Handicaps (TASH) www.tash.org

An international association of people with disabilities, their families, professionals, as well as other advocates. Website features information about membership, conferences, trainings, events, publications, as well as other resources.

Tourette Syndrome Association of Ohio www.tsaohio.org

Non-profit organization that includes individuals with Tourette Syndrome, families, friends, and professionals. Information on support groups, membership, news, events, conference information. as well as other resources.

SPECIAL EDUCATION

Autism Classroom www.autismclassroom.com/home

Information for teachers about how to teach students with autism and other resources.

Center for Instructional Supports and Accessible Materials (CISAM) www.ossb.oh.gov/CISAM/CISAM.php

Assists schools in locating large-print and Braille textbooks as well as audio and digital textbooks, instructional aids, and other specialized equipment.

DCDT Student Involvement in the IEP Fact Sheet www.nsttac.org/?FileName=dcdt_factsheet

Fact sheet describes how students can be involved in their IEP and includes the evidence-based researching supporting student involvement. It also includes the 11 steps students can follow when leading their own IEP meeting.

Do to Learn www.do2learn.com

Resources, materials, and strategies for teachers such as picture cards, games, schedules, songs, etc.

Ohio Center for Autism and Low Incidence (OCALI) www.ocali.org

Website provides information about ASD, low-incidence disabilities, family services including a services and supports database, assistive technology, and transition. Website also posts autism Internet modules (AIM), which provide readers with news and research in the field.

Ohio Coalition for the Education of Children with Disabilities www.ocecd.org

A statewide, non-profit organization. The coalition is comprised of over 40 parent and professional disability organizations that serve the families of children with disabilities in Ohio. Website provides information about training, conferences, projects, history, as well as information on how to donate and join.

Ohio Department of Education Office for Exceptional Children Resources www.edresourcesohio.org

Provides information about special education procedures and policies, Ohio required forms, optional forms, and other resources.

Teacher Vision www.teachervision.fen.com

High school, middle school, and elementary lesson plans online featuring ideas for children's activities and classroom management advice.

TinSnips www.tinsnips.org

Special education resources for teachers that features tools, techniques, worksheets, and activities.

SPECIAL EDUCATION LAW

Council of Parent Advocates and Attorneys (COPAA) www.copaa.net

A non-profit organization of attorneys, advocates, and parents who strive for high-quality educational services for children with disabilities.

Disability Rights Activist www.dralegal.org

A non-profit law firm that focuses on the civil rights of individuals with disabilities. Website features information about current news, investigations, cases, projects, as well as additional resources.

IDEA Partnership www.ideapartnership.org

Facilitates interaction and shared work across professional and family organizations that share common information and interests.

Ohio Legal Rights Service (OLRS) www.olrs.oh.gov

Information about legal rights and information from grants to business regulations and local tax information, as well as state jobs and business and professional licensing for Ohio residents.

Wrightslaw www.wrightslaw.com

Features information about special education law, education law, and advocacy for children with disabilities. Website includes information, books, training, a law library and dozens of topics ranging from ADD to FAPE to IDEA.

STATE AGENCIES

Legislative Service Commission (LSC) www.lsc.state.oh.us

Non-partisan agency that provides drafting, fiscal, research, training, and other services to the General Assembly. Website features information about bills/resolutions, budget bills, and publications.

Office of the Governor www.governor.ohio.gov

Features information about the governor, current news, contact information, policy information, as well as other information.

Ohio Association for Persons in Supported Employment (Ohio APSE) www.ohioapse.org

A national and state membership organization formed to improve and expand employment opportunities, services, and outcomes for individuals with disabilities.

Ohio Center for Autism and Low Incidence (OCALI) www.ocali.org

Website provides information about ASD, low-incidence disabilities, family services including a services and supports database, assistive technology, and transition. Also posts autism Internet modules (AIM), which provide readers with news and research in the field.

Ohio Department of Developmental Disabilities (DODD) http://dodd.ohio.gov/

Features news as well as information for individuals and families, county boards, and providers. Also contains information about training, forms, publications, jobs, adult services, residential resources, and health and safety.

Ohio Department of Education (Exceptional Children) www.ode.ohio.gov Click on "About Us," "Organizational Structure," "Center for Students, Families and Communities" and "Office for xceptional Children"

Information about special education procedures and policies, Ohio required forms, optional forms, and other resources.

Ohio Department of Health (ODH) www.odh.ohio.gov

Contains information on emergency preparedness, diseases and conditions, environmental health, access to health services, as well as other related information.

Ohio Department of Health (ODH) - Help Me Grow (HMG) www.ohiohelpmegrow.org

Help Me Grow (HMG) is Ohio's birth to 3 system. Website features information for parents, caregivers, and professionals, as well as how to find local Help Me Grow programs.

Ohio Department of Job and Family Services (ODJFS) http://jfs.ohio.gov/

Provides information for job seekers, employers, as well as services for Ohio families such as family information and provider information. Website also features important news and events.

Ohio Department of Mental Health (ODMH) www.mh.state.oh.us

Works to ensure access to quality mental services for Ohioans at all levels and stages. Website features information about news as well as information for consumers, families, providers, and hospitals.

Ohio Developmental Disabilities Council www.ddc.ohio.gov

A planning and advocacy group that promotes inclusion for individuals with developmental disabilities. Information about membership, events, publications, and products.

Ohio General Assembly www.legislature.state.oh.us

Provides information about current legislation as well as how to locate legislators.

Ohio Interagency Workgroup on Autism www.iwg-autism.org

Coordinates efforts among various state agency partners to ensure that the wishes and needs of Ohioans with ASD are recognized and valued.

Ohio's Mental Illness Developmental Disabilities Coordinating Center of Excellence (MIDD CCOE) www.midd.ohio.gov

Mission is to help individuals with dual diagnoses of mental illness and a developmental disability. They provide resources for this group of individuals.

Ohio's State School Support Teams (SST)

See graphic in Appendix VII.

Ohio Legal Rights Service (OLRS) www.olrs.ohio.gov

Information about legal rights and information from grants to business regulations and local tax information, as well as state jobs and business and professional licensing for Ohio residents.

State of Ohio www.ohio.gov

Provides information for residents of the state of Ohio about Ohio news, tax information, state job information, business regulations, lottery results, amber alert plan, state facts, state laws, and much more.

Rehabilitation Services Commission (RSC)- Vocational Rehabilitation www.rsc.state.oh.us

A state agency that partners with Ohioans with disabilities in order to achieve quality employment. Provides information for job seekers, youth, employers, partners, and other information.

Self-Employment and Social Security Work Incentives for Persons with Disabilities (Consulting and Training on Employment and Transition to Work) www.griffinhammis.com

Focuses on community rehabilitation improvement, job creation, job site training, employer development, work incentives, etc. Website provides information about services, associates, customers, Social Security, and other information areas.

Social Security Disability Insurance Program www.socialsecurity.gov/pgm/links_disability.htm

Website has information about disability benefits, how to apply for them, work incentives for individuals with disabilities, as well as publications and research.

TRANSITION

Career Voyages www.careervoyages.gov

A website resulting from collaboration between the U.S. Department of Labor and the U.S. Department of Education. It is designed to provide information on high-growth, in-demand occupations along with the skills and education needed to attain those jobs.

Creating High Expectations (CHE) www.create.org.vt.edu

A project designed to light a spark in middle and high school students with disabilities by engaging them in thoughts about a career and postsecondary education; making the most of attending a transition event; and subsequently, knowing how to be an active participant in one's own transition planning. A series of lesson are offered as modules in three critical areas: assistive technology, careers, and leadership. In addition, resources are provided for students, educators, and families.

Evidence Based Transition Practices from National Secondary Transition Technical Assistance Center (NSTTAC) www.nsttac.org/?FileName=student_development

Click on a specific practice to get more information on evidence and resources for teaching the skill.

Learn and Earn: Supporting Teens www.washington.edu/doit/Brochures/Careers/support.html

A fact sheet describing why teens with disabilities should be involved in work-based learning. It is a product of DO-IT and has a link to a free online video.

Learn and Earn: Tips for Teen www.washington.edu/doit/Brochures/Careers/learn.html

Prepared by DO-IT (Disabilities, Opportunities, Internetworking and Technology), this website includes advice on how high school students can prepare for careers, a fact sheet, and link to a free online video. The project encourages students with disabilities to enter careers in math and science and provides information and resources about using technology as an accommodation.

Life Journey Through Autism: A Guide for Transition to Adulthood www.researchautism.org/resources/reading/index.asp

A free guide containing a chapter on vocation and employment. The appendices include state and federal agencies for transition assistance, job ideas, and a list of reasonable and common job accommodations.

Ohio's Transition Guidelines for Individuals with ASD www.ocali.org/view.php?nav_id=79

Guidelines providing guidance and resources for parents and professionals during the process of transitioning to adulthood for individuals with ASD. The document provides information on legal issues, school age programming, employment, community participation, supported living, etc.

Preparing for a Career: An Online Tutorial www.washington.edu/doit/Brochures/Careers/prepare.html

A compendium of career planning resources, but geared towards teens with disabilities. There are resources for résumé writing, interviewing and finding out about careers, interests and aptitudes. This is another product of DO-IT. Check out all their resources at their home page www.washington.edu/doit/

Rubrics for Transition III: for Autism Spectrum Students www.tensigma.org/transition/

Software and manuals that may be borrowed from OCALI www.ocali.org or purchased from ??? The software and manuals help assess students in a variety of transition skills (like following directions, working cooperatively with others) and provide customized rubrics to train and evaluate needed transition skills.

Supporting Individuals with Autism in Integrated Community Jobs: Identifying Support Needs to Facilitate Success www.crp-rcep.org/resources/viewContent.cfm/618

An article describing the characteristics of ASD and strategies that may be used to promote successful employment outcomes.

Work Support www.worksupport.com

Information, resources, and research about work and disability issues.

Your Employment Selection (YES) www.yesjobsearch.com

Web-based collection of career videos to determine work interest. There is a small fee to view.

Youthhood www.youthhood.org

Website built to help students plan for the future. It asks questions like: What will you do after high school? Will you work? Go to college? Live in a place of your own? By using this website, students can plan for their future and participate in goal-planning activities.

Zarrow Center http://education.ou.edu/zarrow

Offers transition planning and self-determination assessment and training material geared towards the student with a disability.

AUTISM

Reaching for a brighter future

Service Guidelines for Individuals with Autism Spectrum Disorder through the Lifespan

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
Ohio

Ohio
Developmental
Disabilities Council
Improving the lives of Ohioans with disabilities

OCALI

Ohio | Department of Education

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