



Promoting the inclusion of infants and young children with disabilities in child care

Participant Module

**Autism / PDD
Spectrum Disorder**



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April 2005

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Session: Children with Autism/PDD Spectrum Disorder

OVERVIEW

What this workshop should accomplish:

Participants will learn background information on Autism/PDD spectrum disorder and ways in which child care staff may include these children successfully.

Children with autism may need child care because their parent(s) are working or may benefit from placement in a child care/preschool program in order to develop social communication and social interaction skills. Children with autism/PDD spectrum disorder are increasingly included in regular child care programs because these children need opportunities to use social communication and interaction skills. Placement in a program with typical peers is best for these children since it is within the context of typical children, activities, and routines that children with autism can practice using social communication and social interaction abilities.

Many child care providers worry that the special needs of children with autism cannot be met in a child space or group that is oriented to typical children. Research has shown that these children do better when included in the activities and routines of typical settings, such as child care/preschool -- especially when parents, teachers, and specialists work together to ensure that the child is included socially and instructionally -- not just placed physically in a typical setting.

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From this session, participants should gain understanding about:

- i Be familiar with the diagnostic characteristics of autism/PDD spectrum disorder and primary treatment approaches for young children with autism/PDD spectrum disorder.
- i Describe ways to apply adaptation and teaching strategies in real life situation stories to plan for ways of including young children with autism/PDD spectrum disorder in classroom activities..
- i Be familiar with using basic applied behavior analysis (ABA) strategies in simulation including modifying antecedents, consequences, teaching interventions, and data collection.

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BACKGROUND

Autism is a disorder that was first identified in 1943 by Kanner, a child psychiatrist, who identified a group of children who had either abnormal language or no language at all and whose behavior seemed to isolate them from other children and adults (Mauk, Reber, & Batshaw, 1997).

The Framework of Autism

In 1994, autistic disorder was grouped under a broader diagnostic category of Pervasive Developmental Disorder (PDD) in the diagnostic manual (called DSM-IV) used by psychiatrists, psychologists, and other professionals who diagnose psychiatric conditions. PDD is a term used to describe children who have impairments in social communication and social interaction and who demonstrate stereotypic patterns of activities, behavior, or interests. Difficulties in social communication and social interaction and with stereotypic behavior are present in all of the conditions described under PDD but the extent and type of limitation in each of these areas varies across individual children. Any one child with a PDD label may look quite different from another child who has been labeled as having PDD. Autistic disorder is one of five different syndromes (or conditions) included under this broader category of PDD. The other syndromes include: Asperger's syndrome; PDD (not otherwise specified; sometimes labeled just PDD or PDD-NOS); Rett syndrome; and childhood disintegrative disorder (or CDD).

Autistic disorder is the most severe of all the PDD disorders. In order to be diagnosed with autism, the symptoms in each of the three categories (impaired social communication and social interaction,

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stereotypic behavior) must have been present before the age of three years, a child must demonstrate 6 of 12 diagnostic criteria (outlined in the DSM-IV), and the child's behavior must not be better accounted for by Rett's syndrome or CDD. Even though the characteristics must have been present before three years of age, autistic disorder is seldom able to be diagnosed definitively in infants and toddlers (or before three years of age). PDD (PDD-NOS) is used when a child cannot be diagnosed with Asperger's, CDD, or Retts, when some characteristics of impaired social communication or social interaction and of stereotypic behavior are demonstrated, or if behaviors were not noticed before the age of three years.

Children with autistic disorder (i.e., autism) or with PDD have wide ranging types of behavior. People with autism have been represented widely in the media, for example in the movie *Rainman*, but all people with autism do not act alike. Social communication disorders include children with no verbal spoken language (or attempt to communicate through gestures or other means) as well as children who speak but whose speech may be characterized by repetition (often labeled echolalia), unusual inflection patterns, or difficulties in initiating or sustaining conversations with other people when children are able to speak. In general, many children with autism, even those who have speech, may speak but not use speech to really communicate meaning. They may be able to repeat a lot of language and may do so immediately after hearing the language or many days later. Children who have no spoken language often are able to communicate using picture boards, communication cards, or sign language.

Social interaction disorders may include marked impairment in the use of behavior such as eye gaze, facial expressions, or gestures that

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are used by typical children to initiate and sustain social interaction with others. Other children may demonstrate some of these nonverbal social behavior patterns but may not develop peer relationships or may not seek out ways of sharing enjoyment, interests, or achievements with others. Characteristically, the limitations in social communication and interaction may be "replaced" with other activities in which a child shows abnormal interest. This interest is viewed as abnormal because a child's focus may be quite limited in focus (plays only with the wheels on a particular truck or one particular piece of yarn) or intensity (plays with the wheels on the truck for hours and hours, days and days). Or, a child may demand that particular routines and rituals are followed and may be upset if routines are changed or altered in even the smallest ways (may only eat certain foods or take a bath following a specific routine). Changing a ritual may result in a temper tantrum. Many children perform highly visible stereotypic or repetitive motor mannerisms such as flapping their hands, rocking, toe-walking, twirling their bodies and sometimes more dangerous behaviors such as head banging or other types of behavior that cause self injury.

PDD syndrome is a psychiatric diagnosis but the causes of the condition are believed to be neurological. Because the neurological impairment is not understood, diagnosis is based on clinical findings and on differentiating PDD syndromes from other types of diagnoses. However, children with PDD syndromes may have other types of conditions (or diagnoses) in addition to one of the five types of PDD syndrome (i.e., Asperger's, autistic disorder, Rett's, CDD, or PDD-NOS). The most common associated disorders are mental retardation, seizures, or Attention Deficit Hyperactive Disorder (ADHD) but these do not always accompany a PDD diagnosis. Children may also have some of the same conditions that all children

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may have such as health problems or vision and hearing disorders.

Treatment of Autistic Disorder

For many years, autism was believed to be an incurable condition and one on which treatment and interventions made limited impact. Many children with autism present challenges to their parents and others who care for them and, because they comprise a reasonably discreet diagnostic category, a great deal of research about the causes of autism and ways of treating or intervening with the condition have occurred. A variety of perspectives -- medical, therapeutic, and educational -- have been used to explore treatment. Many treatments have been tried including behavioral intervention, pharmacological management (e.g., drug therapy), sensory integration typically provided by an occupational therapist, speech and language therapy, facilitated communication, play therapy, and special education. In early intervention, young children often may receive a variety of different interventions provided by different disciplines (e.g., special instruction, physical and occupational therapy, speech and language therapy) frequently as a result of associating an area of developmental delay (e.g., social interaction) with a specific discipline (e.g., education). Available treatments and interventions have resulted in a number of model programs (or protocols) for intervening with children with autism; some have been validated (demonstrated as effective) and some have resulted in significant change in some (but not all) children with autism.

Applied behavior analysis (ABA) is a component of all model programs that have been successful with toddlers and young children. This strategy is sometimes called behavioral intervention and is often confused with behavior modification (an approach where applied

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behavior analysis techniques are used to modify inappropriate behavior). In general, ABA is an approach that uses specific stimuli to elicit a particular desired behavior which is then reinforced (or rewarded) with something that is important to the individual. The most popular intervention model for young children with autistic disorder is the UCLA model (sometimes called Lovas or discrete trial training). This particular model, when begun with children at two years of age (or earlier, when possible), has demonstrated success in "recovering" some children from autism. In a study conducted at UCLA by a psychologist, Ivar Lovas, some children with autism who had begun the UCLA model before two years of age recovered from autism in that they functioned like their typical peers at 6 years of age and at 12 years of age (the oldest age at which these children have been followed). These nine children attended regular schools from kindergarten onward and did not require special education. The children who recovered from autism participated in the UCLA model where they received approximately 40 hours of direct intervention per week in their homes for a calendar year (as close to 52 weeks as possible). The intervention used was applied behavior analysis, provided by supervised psychology students (who were enrolled in the UCLA psychology program) using a sequenced curriculum of discrete trial training. This procedure provides repeated trials (opportunities) to practice a particular behavior (e.g., looking/attention; speaking; playing) and is called discrete trial training because the trials (or opportunities) are "imposed" on the child. In other words, children are asked to perform a particular behavior and are rewarded for doing so. Records are kept of every response that a child makes (or does not make) to a particular stimulus and these records, called data, are used to make decisions about how to proceed in teaching a child. Once a child is able to demonstrate basic verbal language and social interaction skills, the location of intervention is expanded by enrolling

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children in regular nursery schools or preschools so that they will have opportunities to use social communication and interaction skills with other children who are the same chronological age.

Other models depend heavily, also, on applied behavior analysis. The TEACCH model, used state-wide in North Carolina, has been adopted by school districts across the country and uses applied behavior analysis to teach children with autism basic social communication and interaction skills and to decrease the stereotypic behavior that children may demonstrate. Children, for example, are taught to play appropriately with toys rather than to focus too intensively on one part of a toy (such as spinning the wheels on toy cars). A model developed by Glen Dunlap and Lise Fox uses applied behavior analysis in the home to decrease atypical and problematic behavior (such as temper tantrums) and to increase appropriate behavior of social communication and interactions. In Atlanta, Gail McGee has developed a model where children with autism can be integrated fully into community-based child care and preschool programs. Again, using strategies of applied behavior analysis, children with autism are taught to interact with typically developing children, to follow the routines of classrooms, and to participate in typical activities. Phil Strain has worked with young children with autism for many years and has developed ways in which children with autism may be included in typical child care and preschool settings as well as strategies that can be used with typical children so that they can assist children with autism to participate in activities and routines. His model program, LEAP, includes children with autism in regular early childhood environments with children who are typically developing.

Other approaches have been used alone or in combination with ABA

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but these have shown less success in recovering children from or in ameliorating the effects of autism. There is no drug (including vitamins) that has of yet been identified as effective in impacting upon the behavior that typifies autism. There are many treatments that have not proven effective in research trials but that clinicians and parents may report as successful with individual children with autism. These include sensory integration, facilitated communication, auditory integration training, and various vitamin, hormone, and other related types of treatments. The ultimate decisions about which treatment(s) to pursue for a child with autism are made by the parents of these children. All parents do the best they can in making decisions about their children; parents of children with autism are no different. Parents of children with autism (or any other disability) make decisions on the basis of knowledge of available options and their child, appropriateness of a particular option to their values and beliefs, and their preferences for particular decision-making strategies. Parents of children with autism are particularly vulnerable to the social isolation, limited communication, and excessive stereotypic behaviors that their children may demonstrate. Any parent would want the promise of positive changes that would bring their children into the activities and routines of daily life. Therefore, parents of children with autism may be more susceptible to the promises of unproven strategies than parents of typical children.

Children with Autism in Child Care or Preschool Programs

Children with autism may need child care because their parent(s) are working or may benefit from placement in a child care/preschool program in order to develop social communication and social

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interaction skills. Placement in a program with typical peers is best for these children since it is within the context of typical children, activities, and routines that children with autism can practice using social communication and social interaction abilities. The limitations in social communication and social interaction as well as the stereotypic behaviors that children with autism may demonstrate define the extent to which the child care provider or nursery school teacher may require additional assistance. Usually this assistance is provided as an additional aide (or classroom assistant) and through providing therapy services such as speech therapy or occupational therapy in the classroom. A special education teacher may function, also, as a consultant to the child care provider or preschool teacher.

The main thing that most children with autism need help with is social communication and social interaction abilities. However, if a child demonstrates frequent temper tantrums or is difficult to engage in activities other than the stereotypic ones that the child may seem to prefer, the child care provider or teacher may need to use special strategies to manage a child's behavior and to promote participation in activities. Teachers should always begin by using the strategies that they would use for any other child but with children with autism (or other situations, as well) may need to collect data to determine how well strategies are working and if others might be more effective. This is where parents and special education teachers may be of help. A special educator may have training in applied behavior analysis techniques or knowledge of a broader range of strategies that might be tried. Parents have often developed ways of interacting with their children with autism and, in living with the child, may have learned different ways of managing behavior like temper tantrums. As a general strategy, teachers should avoid using "no", should reward the child for appropriate behavior (you and John are having such a good

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time playing with the truck together; I like how you are making that painting) and should ignore inappropriate behavior while attempting to engage a child in something more appropriate. For example, if a child were sitting by himself twirling a piece of string while looking at it, an adult should ignore the "string playing" but try to engage the child in something else, preferably that the child likes. The adult could sit next to the child and show him his favorite book -- "Look John, here is Brown Bear, Brown Bear. I am going to read this book just for you." or the adult could draw the child's attention to something else "Look John -- the computer station is open. Come with me and let's see if we can find the number game."

Using adaptation and accommodation strategies facilitates all children's abilities to participate in activities going on in a group setting. Children with autism are most likely to need strategies that promote their use of language socially and their interactions with other children within the context of whatever activities are going on. Strategies may include pairing a child with another child so that activities are accomplished as "partners," using cooperative learning strategies where a group of children work together, prompting a child to use communication ("Tell John, thank you, for helping you get the book; Tell Susan how much you like her picture"), or teaching other children how to prompt the child with autism. Many different strategies to promote social language and social interaction have been tried successfully with children with autism.

Sometimes it can be difficult to figure out if a child is really learning something or participating more appropriately or socially in a child space setting. Collecting data about children's performances or skills can be helpful. There are many data sheets that have been used in programs for children with autism. Sometimes these data sheets are

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used to record performance in structured, discreet trial learning situations. In this situation, a teacher might have a child at a table and might ask the child to ask for a cookie for a number of times (generally 10) in a row. The teacher would record whether or not the child did say "cookie" (or whatever the desired response may be) and how much assistance was needed (or what conditions were present) for the child to respond as desired. The teacher would then record the child's response on a data sheet and would be able to compare progress over several days or weeks. Sometimes, teachers carry data sheets around with them on clipboards and record data as the child's performance occurs. For example, if it were desired for a child to initiate interactions with other children, a teacher might record on the data sheet each time during a day (or particular activity) that the child initiated interactions with another child. Keeping data helps to keep track of children's development, learning, and participation and can be a valuable tool when observation, alone, does not provide enough detailed information about changes.

Summary

Many child care providers or regular early education teachers worry that the special needs of children with autism cannot be met in a child space or group that is oriented to typical children. Research has shown that these children do better when included in the activities and routines of typical settings, such as child care/preschool -- especially when parents, teachers, and specialists work together to ensure that the child is included socially and instructionally -- not just placed physically in a typical setting. Children with autism may also need ongoing direct instruction or speech and language therapy or other special interventions in addition to being included in an educational or

child care setting. The child care provider or early childhood teacher will be a primary person in the child's life when children are included in those settings. Along with the parents, the provider/teacher must be aware of everything that is happening with the child and must be able to use the strategies that will help a child participate successfully in the group setting -- remembering that the primary goal for most young children with autism is one of social interaction and social communication -- areas in which most typically developing children generally demonstrate competence without use of special strategies or emphasis.

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SESSION OUTLINE

< **Welcome**

Promoting the inclusion of young children with disabilities in child care settings has been a primary purpose of PIN. PIN is designed to address the priorities, needs, and concerns of child care providers who are working with young children.

< **Introduction to Autism/PDD Spectrum Disorder**

< **Overview of Treatment Approaches for Children with Autism/PDD Spectrum Disorder**

< **Treatment Approaches for Children with Autism/PDD Spectrum Disorder**

< **Tips for Teaching and Including Young Children with Autism/PDD Spectrum Disorder**

< **Characteristics of Effective Classrooms for Children with Autism/PDD Spectrum Disorder**

< **Summary**

Pervasive Developmental Disorders

Autistic Disorder (Autism)

Asperger's Syndrome

Rett Syndrome

Childhood Disintegrative Disorder (CDD)

Pervasive Developmental Disorder Not

Otherwise Specified (PDD-NOS)

Diagnostic Criteria for Autism

- , Must demonstrate 6 out of 12 characteristics listed in the American Psychiatric Association DSM-IV; these relate to social communication, social interaction, & stereotypic behavior
- , May have mental retardation, seizures, sensory integrative dysfunction, or other associated disorders
- , Need assistance in developing relationships with peers, in language & social communication, & in play skills

Treatment Approaches for Children with Autism

Applied Behavior Analysis

(sometimes called ABA or Behavioral Intervention):

- # UCLA Young Autism Model (Lovas)
- # Princeton Child Development Institute
School-Based Model
- # Douglass Model (Rutgers University)
- # May Institute (Boston)
- # Models that include ABA as part of the approach:
TEACCH, LEAP, McGee, Dunlap & Fox

Speech and Language Therapy

***Facilitated Communication**

***Sensory Integration Therapy**

***Auditory Integration Therapy**

***Various Vitamin Therapy Approaches**

* These treatment approaches have not been demonstrated to be effective with children with Autism.

Treatment of Autistic Disorder

For many years, autism was believed to be an incurable condition and one on which treatment and interventions made limited impact. Many children with autism present challenges to their parents and others who care for them and, because they comprise a reasonably discreet diagnostic category, a great deal of research about the causes of autism and ways of treating or intervening with the condition have occurred. A variety of perspectives -- medical, therapeutic, and educational -- have been used to explore treatment. Many treatments have been tried including behavioral intervention, pharmacological management (e.g., drug therapy), sensory integration typically provided by an occupational therapist, speech and language therapy, facilitated communication, play therapy, and special education. In early intervention, young children often may receive a variety of different interventions provided by different disciplines (e.g., special instruction, physical and occupational therapy, speech and language therapy) frequently as a result of associating an area of developmental delay (e.g., social interaction) with a specific discipline (e.g., education). Available treatments and interventions have resulted in a number of model programs (or protocols) for intervening with children with autism; some have been validated (demonstrated as effective) and some have resulted in significant change in some (but not all) children with autism.

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to perform a particular behavior and are rewarded for doing so. Records are kept of every response that a child makes (or does not make) to a particular stimulus and these records, called data, are used to make decisions about how to proceed in teaching a child. Once a child is able to demonstrate basic verbal language and social interaction skills, the location of intervention is expanded by enrolling children in regular nursery schools or preschool so that they will have opportunities to use social communication and interaction skills with other children who are the same chronological age.

Other models depend heavily, also, on applied behavior analysis. The TEACCH model, used state-wide in North Carolina, has been adopted by school districts across the country and uses applied behavior analysis to teach children with autism basic social communication and interaction skills and to decrease the stereotypic behavior that children may demonstrate. Children, for example, are taught to play appropriately with toys rather than to focus too intensively on one part of a toy (such as spinning the wheels on toy cars). A model developed by Glen Dunlap and Lise Fox uses applied behavior analysis in the home to decrease atypical and problematic behavior (such as temper tantrums) and to increase appropriate behavior of social communication and interactions. In Atlanta, Gail McGee has developed a model where children with autism can be integrated fully into community-based child care and preschool programs. Again, using strategies of applied behavior analysis, children with autism are taught to interact with typically developing children, to follow the routines of classrooms, and to participate in typical activities. Phil Strain has worked with young children with autism for many years and has developed ways in which children with autism may be included in typical child care and preschool settings as well as strategies that can be used with typical children so that they can assist children with autism to participate in activities and routines. His model program, LEAP, includes children with autism in regular early childhood environments with children who are typically developing.

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Components of Effective Programs for Young Children with Autism*

Curriculum Content:

- < Attend to elements of the environment
- < Imitate others (verbal and motor)
- < Comprehend and use language (functional communication)
- < Play appropriately with toys
- < Socially interact with others (especially other children)

Supportive Teaching Environments & Generalization

Predictability & Routine

Functional Approach to Problem Behaviors

Transition from the Preschool Classroom

Family Involvement

Use of Typically Developing Peers to Promote Social Behavior

Treatment is most effective if begun early (before 3 years of age) and when intensity averages a minimum of 20 hours per week

*(Dawson & Osterling, 1997)

Children with Autism in Child Care or Preschool Programs

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For example, if a child were sitting by himself twirling a piece of string while looking at it, an adult should ignore the "string playing" but try to engage the child in something else, preferably that the child likes. The adult could sit next to the child and show him his favorite book -- "Look John, here is Brown Bear, Brown Bear. I am going to read this book just for you." or the adult could draw the child's attention to something else "Look John -- the computer station is open. Come with me and let's see if we can find the number game."

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Real Life Story: Jonathan in Child Care

Jonathan had been attending child care for about seven months when his teachers and his parents became aware that he was seeming to become withdrawn, fearful, and less communicative than he had been earlier. His parents remembered when he could say at least 5 or 10 words pretty consistently and they had become concerned because he was not saying any words. His teachers noticed that even though he was no longer two years old, that he was still tantruming a lot and these tantrums seemed to be more frequent and more severe. He was difficult to comfort and if they tried to hold him or comfort him, he resisted, struggled, and tried to get away. Sometimes he would walk into the room and begin screaming. And, he became faddish about foods and would only eat foods that were one texture -- like applesauce. At three years old, he seemed to prefer to be by himself, did not seem to understand directions, and often wandered around the room or focused on something like dust particles on the carpet or spinning wheels on a car -- activities he would do unless redirected and, if redirected, he screamed.

The child care staff who cared for Jonathan every day did not know what to do. Jonathan seemed very different from other children they had known and they were puzzled because he seemed to be "slipping away", becoming more distant and more uncooperative every day. They spoke with his parents who expressed their concerns and told the child care staff that Jonathan had recently had a well check-up and they had discussed the issues with his pediatrician. The doctor had suggested that Jonathan be evaluated and his appointment was 8 weeks away. What might the child care staff try in the next two months?

Real Life Story:

Will Tyler Be Ready for Kindergarten?

Five year old Tyler's parents wanted him to go to a regular kindergarten -- not a special education classroom or a program for children with autism. Tyler had been included in a preschool program for three, four, and five year olds and while his inclusion had not been easy, the process in the four year old room and in his current five year old (pre-K) room had been facilitated by an aide assigned just to Tyler. The aide was with Tyler about half of the time he was in school and helped to integrate him into activities other children were doing. During the other times, Tyler's participation was the responsibility of his teacher or the classroom assistant.

Tyler had made a lot of progress. He was communicating better with adults using a picture exchange system as well as some speech. He was tantruming very infrequently, maybe once or twice a day and these episodes seemed to occur when he was not able to communicate so that others understood him or when adults were making demands on him with which he did not seem to want to comply. His motor skills were excellent. He was able to draw quite detailed pictures and designs although he still had difficulty with his name or with letters. He liked listening to stories read to him and was able to participate during circle time songs. Outside time was a favorite. He would climb or ride the bikes or swing. Tyler had been unable to feed himself when he was three but by the time he was five, he not only could feed himself but could also help with passing out food and was able to clean up afterwards.

Nonetheless, his teachers were concerned because he was not able to follow directions well and because he would focus on something indefinitely and so intently that it was difficult to redirect activities without a tantrum. They worried about his ability to change routines easily -- it had taken at least 4 months for him to adjust to moving from the four year old to five year old room -- even when most of his classmates were the same children. They wanted to do the sorts of things that would make his transition to kindergarten as easily and successfully as possible. What should the teachers do to facilitate participation?

Child Strengths and Adaptations

Child Strengths:

Activity	Adaptations

A Few Tips for Teaching Children with Autism*

Modify the Environment

Some children with autism are oversensitive to sounds or lights. Reduce these as much as possible.

Use pictures or objects to enhance communication.

Build on Children's Strengths

Avoid long series of verbal directions

Emphasize children's talents -- like drawing or computers

Use fixations as part of teaching

Typing is usually easier than writing -- encourage children to write via computer or other means (such as putting magnetic letters or letter blocks together to form words)

*Modified from Temple Grandin (July 4, 1996)

Teaching Tips for Children and Adults with Autism

**Temple Grandin, Ph.D.
Assistant Professor
Colorado State University
Fort Collins, CO 80523, USA
(Revised: July 4, 1996)**

Good teachers helped me to achieve success. I was able to overcome autism because I had good teachers. At age 2 1/2 I was placed in a structured nursery school with experienced teachers. From an early age I was taught to have good manners and to behave at the dinner table. Children with autism need to have a structured day, and teachers who know how to be firm but gentle.

Teaching Tips for Children & Adults with Autism

- 1** Many people with autism are visual thinkers. I think in pictures. I do not think in language. All my thoughts are like videotapes running in my imagination. Pictures are my first language, and words are my second language. Nouns were the easiest to learn because I could make a picture in my mind of the word. To learn words like "up" or "down," the teacher should demonstrate them to the child. For example, take a toy airplane and say "up" as you make the airplane takeoff from a desk.
- 2** Avoid long strings of verbal instructions. People with autism have problems with remembering the sequence. If the child can read, write the instructions down on a piece of paper. I am unable to remember sequences. If I ask for directions at a gas station, I can only remember three steps. Directions with more than three steps have to be written down. I also have difficulty remembering phone numbers because I cannot make a picture in my mind.
- 3** Many children with autism are good at drawing, art and computer programming. These talent areas should be encouraged. I think there needs to be much more emphasis on developing the child's talents.
- 4** Many autistic children get fixated on one subject such as trains or maps. The best way to deal with fixations is to use them to motivate school work. If the child likes trains, then use trains to teach reading and math. Read a book about a train and do math problems with trains. For example, calculate how long it takes for a train to go between New York and Washington.
- 5** Use concrete visual methods to teach number concepts. My parents gave me a math toy which helped me to learn numbers. It consisted of a set of blocks which had a different length and a different color for the numbers one through ten. With this I learned how to add and subtract. To learn fractions my teacher had a wooden apple that was cut up into four pieces and a wooden pear that was cut in half. From this I learned the concept of quarters and halves.
- 6** I had the worst handwriting in my class. Many autistic children have problems with motor control in their hands. Neat handwriting is sometimes very hard. This can totally frustrate the child. To reduce frustration and help the child to enjoy writing, let him type on the computer. Typing is often much easier.
- 7** Some autistic children will learn reading more easily with phonics, and others will learn best by memorizing whole words. I learned with phonics. My mother taught me the phonics rules and then had me sound out my words.

- 8** When I was a child, loud sounds like the school bell hurt my ears like a dentist drill hitting a nerve. Children with autism need to be protected from sounds that hurt their ears. The sounds that will cause the most problems are school bells, PA systems, buzzers on the score board in the gym, and the sound of chairs scraping on the floor. In many cases the child will be able to tolerate the bell or buzzer if it is muffled slightly by stuffing it with tissues or duct tape. Scraping chairs can be silenced by placing slit tennis balls on the ends of the legs or installing carpet. A child may fear a certain room because he is afraid he may be suddenly subjected to squealing microphone feedback from the PA system. The fear of a dreaded sound can cause bad behavior.
- 9** Some autistic people are bothered by visual distractions and fluorescent lights. They can see the flicker of the 60-cycle electricity. To avoid this problem, place the child's desk near the window or try to avoid using fluorescent lights. If the lights cannot be avoided, use the newest bulbs you can get. New bulbs flicker less.
- 10** Some hyperactive autistic children who fidget all the time will often be calmer if they are given a padded weighted vest to wear. Pressure from the garment helps to calm the nervous system. I was greatly calmed by pressure. For best results, the vest should be worn for twenty minutes and then taken off for a few minutes. This prevents the nervous system from adapting to it.
- 11** Some individuals with autism will respond better and have improved eye contact and speech if the teacher interacts with them while they are swinging on a swing or rolled up in a mat. Sensory input from swinging or pressure from the mat sometimes helps to improve speech. Swinging should always be done as a fun game. It must NEVER be forced.
- 12** Some children and adults can sing better than they can speak. They may respond better if words and sentences are sung to them. Some children with extreme sound sensitivity will respond better if the teacher talks to them in a low whisper.
- 13** Some nonverbal children and adults cannot process visual and auditory input at the same time. They are mono-channel. They cannot see and hear at the same time. They should not be asked to look and listen at the same time. They should be given either a visual task or an auditory task. Their immature nervous system is not able to process simultaneous visual and auditory input.
- 14** In older nonverbal children and adults touch is often their most reliable sense. It is often easier for them to feel. Letters can be taught by letting them feel plastic letters. They can learn their daily schedule by feeling objects a few minutes before a scheduled activity. For example, fifteen minutes before lunch give the person a spoon to hold. Let them hold a toy car a few minutes before going in the car.
- 15** Some children and adults with autism will learn more easily if the computer keyboard is placed close to the screen. This enables the individual to simultaneously see the keyboard and screen. Some individuals have difficulty remembering if they have to look up after they hit a key on the keyboard.
- 16** Nonverbal children and adults will find it easier to associate words with pictures if they see the printed word and picture on a

flashcard. Some individuals do not understand line drawings, so it is recommended to work with real objects and photos first.

- 17 Some autistic individuals do not know that speech is used for communication. Language learning can be facilitated if language exercises promote communication. If the child asks for a cup, then give him a cup. If the child asks for a plate, when he wants a cup, give him a plate. The individual needs to learn that when he says words, concrete things happen. It is easier for an individual with autism to learn that their words are wrong if the incorrect word resulted in the incorrect object.
- 18 Many individuals with autism have difficulty using a computer mouse. Try a roller ball (or tracking ball) pointing device that has a separate button for clicking. People with autism who have motor control problems in their hands find it very difficult to hold the mouse still during clicking.

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What to Do When ----- Teaching Tips*

The Child May ---	You -----
Have little or no language or may not respond to verbal communication	Accompany any verbal directions with pictures, gestures, or actually taking the child and physically showing him or her where to go in the classroom or what to do next.
Echo words that have been said recently or that have been heard on TV, etc.	Ignore the echo speech and encourage the child to use verbal language socially.
Use speech repetitively or may do the same action again and again	Ignore and don't overreact to ritualistic behavior; redirect the child to some new activity or enlarge the repetitive action.
Demonstrate ritualistic behavior such as hand flapping, spinning objects, rocking, etc.	Ignore and don't overreact to ritualistic behavior; redirect the child to some new activity or enlarge the repetitive action.
Show overly dramatic responses to sound, light, temperature, etc.	Try to minimize the changes in sensory factors (e.g., keep lights dim in the room; screen out sudden noises)
Be hypoactive or withdrawn; show little eye contact	If a child seems withdrawn, consider whether the child may be "shutting down" in response to too much stimulation; if so, minimize sensory factors and try to encourage the child's interest with toys or activities you know the child likes. Try to maintain eye contact with the child (even if the child does not do this).
Show excessive fear to new situations.	Prepare the child for what is coming next or for new things that will occur; ease the child into new situations by having the child bring a favorite toy or do other things for extra security
Resist or be upset by change in schedule, routine, placement of furniture, etc.	Try to keep the environment predictable and prepare the child for changes
Lack play skills and interaction with other children around play	Model appropriate play behavior (let the child see how to do it) or have other children model play (e.g., peer tutoring)
Be aggressive and/or have destructive behavior	Remove the child from an area if other children's activities are being destroyed; or remove the other children from the area; redirect the child's activity.
Have temper tantrums or scream for no apparent reason	Try to identify anything that may be related to tantrums. Sometimes a child is responding to adult demands, sometimes a child is trying to communicate. Make notations of what happened right before the tantrum to determine if there is a pattern. Then, address the situation related to the tantrum.

*Some of these ideas were taken from: Paasche, Gorrill, & Strom (1990). *Children with special needs in early childhood settings*. New York: Addison-Wesley Publishing Co.

LEAP Data Sheet - Preschool

Name: _____ Date: _____

Objective: _____

Criteria: _____

4	4	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
Date	Date	Date	Date	Date	Date	Date	Date	Date	Date

4	4	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
Date	Date	Date	Date	Date	Date	Date	Date	Date	Date

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Activities	Date									

- 0 - Resisting/Refusal
- 1 - Physical/Model
- 2 - Partial Physical Assistance
- 3 - Gestural Cue
- 4 - Independent

Area: _____

Characteristics of Effective Classrooms

- X Children are treated with respect and individuality.
- X Children are given time to respond.
- X Children are given opportunities to be independent first -- then are given prompts using a least to most hierarchy.
- X Large, sit down, teacher-directed activities are few and when used are of short duration.
- X Materials that promote a child's IEP goals are readily accessible to the teacher and children.
- X Materials are added to learning or activity areas throughout the week.
- X Teaching staff promote opportunities for social interaction.
- X Data are collected.

Taken from LEAP teacher supervision materials (undated).

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Websites

Websites are a valuable resource for learning more about particular areas and for downloading information that can be used in training. Many websites are linked to other websites, providing easy access to related sites. However, website addresses may change.

The most up to date listing of resources may be found at

http://www.fpg.unc.edu/~scpp/nat_allies/na_resources.cfm or

www.nectac.org

What Did You Learn Today?

1. Did you make any changes in your classroom since the last session? Explain
2. List 2- 3 main points you learned from this session.
3. I am leaving this session with a better idea about how to:
4. What is one thing you plan to do differently in your classroom before the next session?