



## Autism Spectrum Disorder Series

# Effective Programming for Young Children with Autism (Ages 3-5)

### Introduction

The positive outcome of early intervention programming for any child with developmental delays/disabilities has been documented in numerous research articles and publications. However, unlike many other developmental disabilities, children with autism are typically not diagnosed until between the ages of two and three, as there are no medical tests to make a definitive diagnosis of autism at an earlier age. Many medical professionals prefer to take a "wait and see" approach, due to the wide range of "normalcy" in early developing children. Thus early intervention programming can often be delayed for these children, resulting in the "loss" of several critical years of intensive intervention during which significant developments in the brain are occurring. Due to this time factor, once a diagnosis is given, early intervention programming becomes crucial to appropriately address the child's needs in all developmental areas and, most importantly, to develop the child's ability to function independently in all aspects of his life.

Effective interventions for young children with autism are based upon the presence of certain fundamental features. Therefore, a "best practice" approach for providing early childhood services for children with autism should incorporate the fundamental features discussed in this article. Much of this information is also covered in more detail through the statewide training. This link will access information on Autism and the Early Childhood Training:

<http://www.dpi.state.wi.us/dpi/dlsea/een/auttrain01.html>

### Fundamental Features

The fundamental features necessary for a successful early childhood program for children with autism are:

- Curriculum Content
- Highly Supportive Teaching Environments and Generalization Strategies
- Need for Predictability and Routine
- Functional Approach to Problem Behavior
- Transition Planning from Early Childhood program to elementary school
- Family Involvement

Each of these components will be discussed in detail.

## Curriculum Content

The curricular areas to be focused on in an early childhood program should address the core features and characteristics of autism spectrum disorder. The goals and objectives to address each curricular area should be highly individualized for each child's developmental level, as well as his learning strengths and weaknesses (5). Knowledge of typical child development is also crucial in providing a guideline for intervention in the curricular areas. The following curricular areas have been identified as essential to meeting the needs of young children with autism spectrum disorder:

**Attending Skills:** A common feature of autism is the child's significant difficulty in interpreting and prioritizing the importance of various external and internal stimuli continually bombarding him (e.g., a fly buzzing around the room; internal perseverative thoughts such as recitation of math facts). As a result, many of these children can exhibit the following:

**Variable attending skills:** The child demonstrates attending skills that vary significantly, depending upon his interests. For example he attends well to what is interesting or "makes sense", such as the computer, videos, puzzles, etc., but attends poorly to large group listening activities.

**Difficulty in shifting attention from one stimulus to another:** For example if the child is engaged in a visual perceptual task of putting a puzzle together, he may not be able to shift his attention to focus on an auditory directive given by the teacher.

**Difficulty attending in situations where there are multiple stimuli:** Because the child with autism has significant difficulty shifting attention, as well as prioritizing stimuli, attending to the "essential information" is challenging. For example, if the child's focused attention is on "sitting appropriately in a small group setting", he may not be able to focus on the information being taught by the teacher.

**Imitation:** Imitation is a critical developmental skill for children with autism spectrum disorder to develop, as learning throughout life is based on the foundation of being able to imitate. The ability to imitate impacts learning in all areas, including social skills and communication. Various imitation skills must be specifically and directly taught to the child with autism. These include:

- Imitating fine and gross motor movements
- Imitating actions on objects
- Imitating designs with manipulatives
- Imitating sounds and words

**Communication (*Understanding and Use*):** Children with autism exhibit significant communication difficulties in both their abilities to comprehend and to express language appropriately. Many children, at the early intervention level, have not learned the "power" of communication - that is, the cause and effect of communication. They have not developed the "intent" to communicate. Some children will try to obtain the desired item themselves and not seek out others for assistance. Children with autism have difficulty understanding that communication is an intentional exchange of information between two or more people. Therefore in order to teach this intent to communicate at this early intervention level, many

children with autism must be "tempted" to communicate by using their highly desired objects and actions (1).

**Play Skills with Toys:** Children with autism exhibit marked difficulty engaging in appropriate play skills with toys. Play skills with toys can range from the following:

**No interaction:** The child shows no interest in touching or holding toys.

**Manipulative/explorative play:** The child holds and gazes at toys; mouths, waves, shakes, or bangs toys; stacks blocks or bangs them together; lines up objects.

**Functional play:** The child puts teacup to mouth; puts brush to hair; connects train sections and pushes train; arranges pieces of furniture in dollhouse; constructs a building with blocks.

**Symbolic/pretend play:** The child pretends to do something or to be someone else with an intent that is representational, including role-playing (e.g., child makes hand move to mouth, signifying drinking from teacup; makes a puppet talk; uses a toy person or doll to represent self; uses block as a car accompanied by engine sounds).

Appropriate play skills with toys and play with peers will need to be specifically and directly taught to children with autism.

**Social Play/Social Relations:** A core feature of autism is difficulty understanding, and engaging in, social interactions. At the early intervention level, children with autism typically exhibit significant difficulty engaging in social play with peers. Social play skills with peers can range from the following:

**Isolation:** The child appears to be unaware of, or oblivious of others. He may occupy himself by watching anything of momentary interest.

**Orientation:** The child has an awareness of the other children, as evidenced by looking at them or at their play materials or activities. However the child does not enter into play.

**Parallel/proximity play:** The child plays independently beside, rather than engaging with, the other children. There is simultaneous use of the same play space or materials as peers.

**Common focus:** The child engages in activities directly involving one or more peers, including: informal turn-taking; giving and receiving assistance and directives; and active sharing of materials. There is a common focus or attention on the play.

Typically developing peer models are essential to facilitate developmentally appropriate social behavior for children with autism.

## Highly Supportive Teaching Environments and Generalization Strategies

The previously noted curricular areas must be taught in an environment which takes into consideration the unique features and characteristics associated with autism spectrum disorder. The specific skills per curricular area should be taught in a highly supportive and structured

teaching environment, and then systematically generalized to more functional, natural environments (1).

Features of the environments which should be addressed include the following:

**Physical Environment:** Due to difficulties in appropriately processing and modulating all incoming sensory stimulation, the physically structured environment should provide environmental organization for children with autism. (See next article for additional information.)

**Furniture arrangement:** Environmental organization includes clear physical and visual boundaries, which (a) help the child to understand where each area begins and ends, and (b) minimize visual and auditory distractions (2). Each area of the classroom (or other environment) should be clearly, visually defined through the arrangement of furniture (e.g., bookcases, room dividers, office panels, shelving units, file cabinets, tables, rugs, etc.). Children with autism generally do not automatically segment their environments like typically developing children. Large, wide-open areas can be extremely challenging for children with autism. They do not understand what is to occur in each area, where each area begins and ends, and how to get to a specific area by the most direct route. Strategically placing furniture to clearly, visually-define specific areas will decrease the child's tendency to randomly wander/run from area to area.

**Visual Distractions:** Visual distractions can be minimized by painting the entire environment (walls, ceilings, bulletin boards, etc.) a muted color (e.g., off-white) as well as markedly limiting the amount of visual "clutter" which is typically present in most classrooms in the form of art projects, seasonal decorations and classroom materials. **Reduction of Visual Clutter** can be accompanied by using sheets/curtains to cover classroom materials (including equipment such as a computer or TV/VCR), or by removing unnecessary equipment/materials from the classroom or to an area not in the student's view. Certain fluorescent lighting can be visually distracting to some children with autism. Natural lighting via windows can provide an easy solution to this visual distraction. Through the use of blinds, curtains, or shades, the amount of light coming into the environment can easily be controlled, thus creating a warm and calm environment.

**Auditory distractions:** The lowering of auditory distractions in a physically structured environment can be achieved through the use of carpeting, lowered ceilings, acoustical tiles, P.A. system turned off or covered with foam to mute the sound, and headphones for appropriate equipment, such as the computer or tape players.

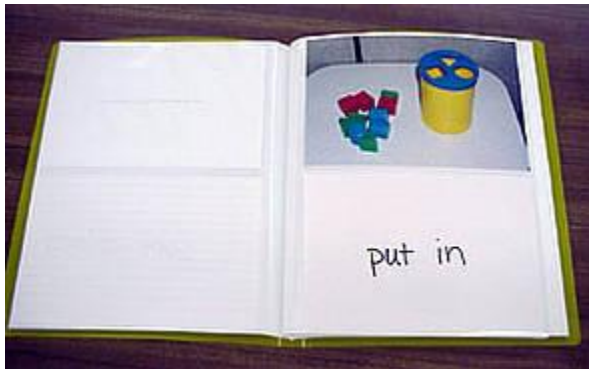
A physically structured environment will create an easily understood, predictable and thus calming environment for the child with autism. As a result the child's attention to the most relevant information for learning will be maximized.

**Visual Support Strategies:** Visual support strategies refer to the presentation of information in a visually structured manner. These strategies are effective in helping children with autism understand what is expected of them and how to function appropriately. These strategies support the children's strongest processing area - visual. The visual cues help the child to focus on the relevant and key information. Visual support strategies help children with autism learn better and more effectively. These strategies also minimize stress and anxiety by helping children grasp their environment. Visual support strategies in an early intervention program can include the following:



"Object Schedule"

- schedules
- directions (e.g., self help skills - tooth brushing; hygiene; washing hands)
- forewarning/foreshadowing
- independent work activities
- teaching rules/alternative behaviors
- increasing language comprehension skills
- expressive communication skills
- making choices
- turn-taking
- waiting
- attending
- academic/readiness areas



"Activity Schedule"



**Trained Staff:** A well trained staff in understanding the unique features and characteristics associated with autism is an essential feature in providing a highly supportive teaching environment. The Wisconsin Statewide Autism Training Project is accessible year round and covers multiple areas. Information on the training is found at the Wisconsin Department of Public Instruction website: [http://www.dpi.state.wi.us/dpi/dlsea/een/cspd\\_trg.html](http://www.dpi.state.wi.us/dpi/dlsea/een/cspd_trg.html). In addition, CESA #6 provides numerous trainings relating to autism spectrum disorders. CESA #6 web site:

<http://www.cesa6.k12.wi.us> . The Autism Society of Wisconsin also provides information of training opportunities. See <http://www.asw4autism.org>

Additional training in specific strategies is also suggested (e.g., Structured Teaching Practices, Picture Exchange Communication System - PECS, Sensory Integration Strategies, Music/rhythm integration strategies, discrete trial, Greenspan's Floortime web site: <http://www.stanleygreenspan.com> , etc.).

## Need for Predictability and Routine

Another diagnostic feature of autism is the child's strict adherence to routines and the need for sameness in his environment (1). Early childhood programs which are highly structured, consistent and routine, can best meet the child's needs by taking into account this feature of autism. Just as with visual support strategies, programs that are predictable and routine-centered also minimize a child's stress and anxiety by helping him to better understand his environment.

## Functional Approach to Challenging Behaviors

The most effective approach to addressing challenging behaviors in children with autism is proactive. Preventing the development of challenging behaviors can occur by creating appropriate and meaningful learning environments that do not generate the stress, anxiety and frustration typically experienced by children with autism. Due to the characteristics of autism, stress, anxiety and frustration occur in such areas as language comprehension, expressive language, sensory processing, resistance to change, preference for familiar routines and consistency, organization, attending to salient stimuli and distractibility.

The use of the fundamental features in an early childhood program will assist in proactively addressing the occurrence of challenging behaviors. If and when challenging behaviors persist, they should be addressed through a functional assessment of the behavior. Again, the unique features and characteristics associated with autism should be considered in the functional behavioral assessment, to determine how they might be contributing to the presence of the challenging behavior. Specific training on challenging behaviors is covered in the Statewide Autism Training Project, found at the DPI website.

## Transition Planning from Early Childhood Program to the Elementary School

Due to difficulties in making transitions, accepting change and generalizing previously acquired skills, the child with autism may experience significant challenges in transitioning from his early childhood program to a primary elementary program (1). Therefore, several critical components have been identified to assist the child in making this transition successfully.

**Develop independent functioning skills:** The initial development of independent functioning skills is an important factor in preparing the child for elementary school (1). It is critical to begin teaching children with autism independent functioning skills as soon as they enter their early childhood program (1). These skills will assist them throughout their lives. Independent functioning in all curricular areas should be addressed (e.g., communication, social relations, play, self-help/daily living skills, attending, navigating the school environment, etc.).



**Determine an appropriate placement:** The child's early childhood program should take an active role in assisting the parents and school districts in finding an appropriate placement for each child transitioning from an early childhood program to an elementary school (1). Factors to be considered can include: class size, degree of classroom structure, teaching style, and the physical environment.

**Staff training:** It is critical for the elementary school staff, who will be directly working with the child, to be trained in the unique features and characteristics common to autism. The training should also include strategies directly applicable to a child with autism.

Visitations to the child's early childhood program by the elementary school staff are also important, so that the early childhood staff can assist in providing direct, individual, child-specific information and training if necessary. In addition, the early childhood staff should visit the elementary school to determine skill areas which may need to be addressed, prior to the child's transition. Early childhood staff can also help assess the physical environment, and determine if there are any adaptations/modifications which which should be considered.

It is also suggested that the entire school professional staff participate in a general inservice or receive information regarding the unique features and characteristics of autism, so that all staff members can more readily understand the child who will be entering their school.

**Peer training:** Another component of training should involve the peers/classmates of the child who is transitioning into their school. Division TEACCH (3) has developed a successful protocol for training peers at this level and is available at its website: <http://www.unc.edu/depts/teacch/> This should only occur after written parent permission is obtained.

**Visitation to elementary school placement:** It is suggested that the child's transition to his elementary school placement be accomplished gradually (1). This can occur in a number of ways. As mentioned previously, the child can become adjusted to the new teaching staff in his familiar and comforting early childhood environment when the elementary school staff visits the child's early childhood program. After this is accomplished, the child can begin to visit the elementary school on a gradual basis, accompanied by a familiar adult from his early childhood program. The amount of time that the child spends in the elementary school placement is gradually increased. This procedure tends to work best in that, if any difficulties arise when the child is in their elementary school placement, these difficulties can still be addressed in his familiar and comforting early childhood environment (1).

## Family Involvement

Parallel training of Parent/family and staff: The parent/family should be informed by school staff on strategies that are being used successfully at school. In turn, the parents should inform school staff on successful home strategies. This mutual sharing of information/ideas can be accomplished through the following:

- Monthly home visits
- Monthly staff/family support meetings
- Daily home-school communication notebook
- Phone calls
- School visitations

**Parents as visitors or volunteers:** Many parents may wish to visit or volunteer time to their child's early childhood program. This can be accomplished in many different ways, depending upon the parents' time schedules, the needs of the teacher, as well as the individual needs of the children. Some children can become quite anxious and upset when their own parents are in the classroom environment. The children perceive this as a "change"; that is, their parents are associated with the home environment and not the classroom. In such cases parents can volunteer by making materials, copies, etc. outside the classroom. Also, many schools have policies and procedures regarding visitations and volunteering, which should be consulted. Other program features that may greatly contribute to the success of a child's early childhood program, are the following:

**Frequent staffings:** Frequent staffings for each child by the early childhood teaching staff ensure consistency in programming. It is critical that decisions regarding a child's individualized program are made by the entire teaching staff as a team.

**Team teaching approach:** A successful staffing approach to meeting the unique and individualized needs of children with autism is utilization of a team teaching concept. In this approach staff members combine their specialized skill areas to team teach the students in the program. Various professionals and para-professionals can be part of this teaching team (e.g., speech/language pathologist, occupational therapist, early childhood teacher, certified occupational therapy assistant, and classroom aides). Although each member will contribute greatly to the team regarding his specialty area, in an ideal team teaching environment, it should be difficult for visitors to distinguish the various specialty areas of the teachers in the classroom. Utilization of team teaching provides the child with on-going, consistent and individualized focus in all skill areas.

**Individualized program:** The individualized education plan (IEP) is the blueprint for successfully meeting the needs of the child with autism. Each child's daily program is based on his specific needs (IEP goals and objectives), and will be different from every other child in the classroom.

**Data driven:** On-going data collection should take place to support progress towards each child's IEP goals and objectives, to assist in determining daily programming, and to substantiate the overall efficacy of the child's IEP.

**Typically developing peers:** It is critical for an early childhood program to have ready access to typically developing peers to provide models and support for the child with autism. Individualized mainstreaming can take place in various ways (e.g. For a particular child with autism, 1-2 peers can come into the early childhood classroom to act as peer models when focusing on structured play skills, such as turn-taking or imitating actions on objects). Also, the child may be participating in daycare or another preschool setting, or even kindergarten. A variety of options are available to accomplish this objective.

## Conclusion

This article has addressed some of the fundamental features to be considered for children with autism. Well-planned and implemented early childhood programs are cost effective, in the long term; children with autism who have benefited from such programs will require less intensive services later on. Most importantly, appropriate autism early childhood programs help children acquire the independent functioning skills that will benefit every aspect of their lives.



## References

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