

# Creating a Successful Early Learning Environment for Children Who Have Autism Spectrum Disorders<sup>1</sup>

Heidi Liss Radunovich and Jessica L. Kochert<sup>2</sup>

## What Are Autism Spectrum Disorders?

Autism spectrum disorders (ASDs) are developmental disabilities that can cause significant impairments in social, communication, and behavioral skills. As the name suggests, the term ASD covers a broad range of disorders, each having unique characteristics and manifestations. These disorders include Autistic Disorder, Asperger's Disorder, and Pervasive Developmental Disorder–Not Otherwise Specified.

Childcare professionals can identify possible signs of an ASD in children at an early age by being familiar with its characteristic symptoms. This, in turn, allows for earlier interventions and potentially better outcome. There are three general categories of impairments in children with ASDs.

### Issues with Social Development

Children with autism spectrum disorders often have trouble relating to others. There is often a lack of social awareness including an understanding of social concepts such as taking turns, body language, or appropriate emotional response. They typically display limited play skills and can often be seen playing alone. Children who have ASDs may have trouble maintaining consistent eye contact and there may be little to no eye contact at all. It is also common to

see resistance to affection or cuddling from others, including parents or caretakers.

### Issues with Communication

Some children with an autism spectrum disorder show a delay in language development, with some never using language at all. Within the first five years, a number of communication issues can arise. There may be delays in initial forms of communication such as babbling or cooing. There may also be decreases in the responsiveness to various verbal requests or bids for attention. Children with ASDs will often use repetitive language that is based on repeating what they hear (often referred to as echolalia) or the creation of nonsensical communication. In addition to these problems, children with ASDs may have trouble with imaginative concepts and figurative language. Instead, they tend to understand things in a much more literal sense. However, just because language delays may be present does not mean that a child has an autism spectrum disorder, and some children with ASDs do not have language problems at all.

### Repetitive Behavior and Interests

It is common for children with autism spectrum disorders to exhibit unusual behaviors or interests. There are many types of repetitive behaviors that may be seen in children with ASDs. These behaviors have been categorized into several groups which include stereotypical movements such

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2. Heidi Liss Radunovich, assistant professor, Family, Youth and Community Sciences; and Jessica L. Kochert, curriculum assistant, Florida 4-H; Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

as hand flapping or rocking in place; compulsory behaviors such as arranging toys in a certain manner; resistance to changes in routine or environment; ritualistic behaviors involving daily activities or schedules; and restricted behaviors that are limited in focus, such as a preoccupation with a certain toy or television program.

## Additional Symptoms

Additional symptoms of ASDs include the following:

- Unusual responses to sensory stimulation. Whether touch, taste, sound, sight, or smell, children with ASDs may experience a completely different set of responses to a given stimulus than children who do not have ASDs.
- Unique eating behaviors, including being very selective about what foods are chosen or establishing rituals for how foods are eaten.
- Sleep problems, including difficulty in falling and staying asleep.

Children with autism spectrum disorders may display impairment in each of the three main areas, but many exhibit some or all of the additional symptoms. However, the symptoms displayed by each child are unique. Some children will display problems early in life, but it is also possible for children to develop throughout the first and second year before showing any signs of an ASD. Autistic Disorder is usually diagnosed by age 5, but other ASDs may not be diagnosed so early. For example, many children with Asperger's Disorder are not diagnosed until much later in life—some not even until adulthood.

## Working with students who have ASDs

Several factors must be considered when developing the structure and format of a classroom to meet the needs of children with ASDs. The structure must be formatted in a way that will support students' unique needs. Also, appropriate methods must be selected that will promote skill development, in both social and life skills, while addressing behavioral needs as well.

### Classroom Structure

When planning the structure of your classroom to accommodate students who have ASDs, three particular areas will require close attention:

## SCHEDULES

Transitions, or shifts from one focus to another, can often cause problems for toddlers and other young children. This is especially true for children with ASDs. It is quite common for children with ASDs to require consistency in their environment in order to feel comfortable. Transitions that occur without proper support, such as a change in location (going from the classroom to the lunchroom), a change in playmates, or even a change in the daily schedule, almost always result in frustration and possibly disruptive behavior. This can be minimized in the classroom using schedules and daily routines, which are essential for creating an environment in which children with ASDs can confidently participate. A successful way to implement this in the classroom is with visual scheduling. Visual schedules provide child who have ASDs with cues about daily activities—what is supposed to be happening now, and what to expect in the near future. This helps reduce the level of anxiety and frustration that may occur throughout the day's transitions. While this method can be a valuable tool for almost all children who have ASDs, it is especially valuable to those who are non-verbal as a way of introducing symbols for the purpose of communication. These schedules may either be designed for the individual student (taped to the top of the student's desk), or created for use by the whole class as part of a wall display.

As you are designing your visual schedule system, it is important to remember that these are simply visual cues for each of the day's major activities. Trying to script the child's entire day is impractical and impossible. Changes within the day's schedule will occur at some point. By creating controlled exposures to environmental changes (through small adjustments and changes), you can create opportunities for children with ASDs to learn flexibility and adaptability in dealing with changes in the world around them, while continuing to pay close attention to his or her need for the established routine. However, even with small changes, children with ASDs should be given as much warning as possible to impending changes. If you know of a change in the day's schedule, create a new schedule for the child's desk, review it with him or her when he or she arrives, and remind him or her of the upcoming change as the time approaches. Introduced in this manner, children with ASDs will more successfully learn to manage reactions to changes in schedule.

## EXPECTATIONS AND CONSEQUENCES

When establishing expectations and consequences, it is important for both the lead teacher and any other support staff who will be working with children who have ASDs to

be both clear and consistent. Some children with ASDs have limited communication skills, and some even have little to no receptive or expressive language. Language is often taken literally, as most children with ASDs struggle with abstract or expressive language. Therefore, the best way to communicate classroom expectations is to be clear (using simple language and/or visual cues) and consistent when delivering information to the student. One way to accomplish this goal is to incorporate frequent repetition of the rules. One approach to doing this is to review rules and expectations daily, and to rehearse desired classroom behaviors. It is also recommended that classroom expectations and rules be placed in a visual form to aid in overcoming issues with language impairments. While these simple acts will help all students in the class, they can be essential to the success of the students who have ASDs.

## **PHYSICAL AND ENVIRONMENTAL SUPPORTS**

Having proper physical and environmental supports in place will lead to a greater level of success when working with children who have ASDs. A number of human resources are needed when creating a successful ASD learning environment including: teachers and related service staff who are educated and skilled in working with students who have ASDs (lead teacher, speech therapist, occupational therapist, school counselor or psychologist, and paraprofessionals), and ASD consultants who are able to train these staff members as needed. In addition to these human resources, there are also needs that require non-human support structures. It is helpful for classrooms to include areas for individual work, small- and large-group interaction, free time, time-out or behavioral control, as well as close proximity to toilet facilities and adequate storage space for easy access to needed supplies. The Center for Autism & Related Disabilities (CARD) at the University of Florida can provide information about acquiring proper staff training as well as available local family services (<http://www.card.ufl.edu/>).

## **Skill Development**

Children who have ASDs have difficulty understanding the world that exists around them. Therefore, social and life skills need to be developed in order to assist these students in learning to better interact within their world.

## **SOCIAL SKILLS**

One central feature of ASDs is a difficulty forming and maintaining relationships with others, which is the basis of social interaction. Children who have ASDs have problems both interpreting and responding to social interactions that occur around them. While there are several areas in which

social skills can be introduced, developed and practiced, one area that lends itself easily to the task are play skills. Children who have ASDs often have a style of play that obviously differs from that of other children. Without prior instruction, children who have ASDs are often unable to use social skills, which require flexibility, such as helping, sharing, taking turns, or empathy. Their need for structure is also displayed during play, manifesting itself as a rigid and often routine or stereotypical manner.

The benefits gained from planned peer play experiences can be remarkable. During these experiences, children who have ASDs are able to develop both communication and socialization skills. To create a valuable experience, the lead teacher must first create a plan of action which includes: identifying the child's function level, home and school environments, and personal preferences; using instruction that is structured and that incorporates real-life experiences that can be generalized into their day-to-day routines; and creating environments that are conducive for proper interaction, meaning that the spaces are not too big (which will lead to a lack of interaction) and not too small (which could create conflicts between students). One model, which promotes this type of planned peer interaction, is the Integrated Play Groups model. Created from multiple perspectives and current research, the Integrated Play Groups (or IPG) model has been designed to support children who have ASDs in play experiences with peers and siblings who do not have ASDs. An adult facilitator is present to guide small groups of children through their playtime together, while building a scaffold for development in play, socialization, and meaningful relationships with peers. This model also emphasizes teaching the peer group to be more accepting, responsive, and inclusive of children who relate and play in different ways. More information for the use of this model in your classroom can be found in Pamela Wolfberg's book *Peer Play and the Autism Spectrum: The Art of Guiding Children's Socialization and Imagination*.

## **LIFE SKILLS**

The development of life skills allows children with ASDs to learn how to manage significant portions of their daily life. Learning these skills at an early stage plays a crucial role in future social development. Depending on the preferences of the students, the teacher may choose to use direct instruction, imitation activities, or planned play experiences to create opportunities to learn and practice a variety of life skills. Areas within this skill set include community skills, safety skills, and skills for daily living.

- The community skill set is designed to teach students with ASDs how to manage a variety of tasks in social settings. These tasks can include starting, following through, and completing tasks; following basic instructions; requesting help when necessary; using basic manners; and dressing appropriately.
- The personal safety skill set is designed to teach students with ASDs how to properly recognize and respond to dangerous situations in a variety of settings. These tasks include a number of objectives such as keeping foreign objects out of eyes, ears, nose, and mouth; maintaining distance from dangerous household areas (the stove or electrical outlets); remaining seated in the car; interacting with family pets; and practicing caution when playing outside or near roads.
- Finally, the daily living skill set is designed to teach students with ASDs how to be contributing members within their home environment. These tasks can include eating, dressing, and grooming. Learning these tasks should begin early on, and then evolve with the changing needs of the student and home environment.

Critical to the success of each of these skill sets is the incorporation of family members and the home environment into the plan. Not only will this help to ensure that students will be able to perform these tasks throughout their day, in both their school and home environments, but also it will help to maintain that sense of consistency preferred by children who have ASDs. Involve parents or guardians early in the program development process. Allow them to share with you topics such as household schedules, routines, and behavior management and expectations. In turn, share with them the classroom schedules, routines, and behavior management and expectations, as well as methods for teaching and practicing skills within this skill set. Keep them up to date on which skills you are currently working on, so that they, too, can be reinforcing them in the home. This consistency helps establish an environment for greater success.

## Behavioral Interventions

The two previous topics discussed (classroom structure and skill development) work together to facilitate student learning and to reduce the likelihood of behavior problems. However, there may be times when additional management systems are necessary. Several methods can be incorporated into Individual Education Plans to address behavior modification. Prior to selecting an intervention strategy, the

unwanted behavior must be identified. In order to identify the target behavior, ask these four questions:

1. Who is the target of the behavior?
2. What is the behavior?
3. Where does the behavior take place?
4. When does the behavior take place?

Systematically making observations and clarifying the variables or conditions associated with the unwanted behavior will help in determining the best behavioral interventions to use.

## REINFORCEMENTS

One type of intervention is reinforcement, which involves following desired behaviors with positive or desired consequences. This method works well because children will often repeat behaviors that are followed either by a reinforcing consequence (known as positive reinforcement) or with the removal of an unpleasant stimulus (known as negative reinforcement). Several positive reinforcement programs have proven effective with children, including the use of tangible or edible reinforcements, contingent activity reinforcers, and token economy systems. When using reinforcement as a behavioral intervention with students who have ASDs, teachers should reinforce every correct response at the beginning of the new skill acquisition. This is known as continuous reinforcement. Failure to reinforce could promote extinction (stopping) of the desired behavior. However, care should be exercised when choosing reinforcements. For example, a food reinforcement may work well at first, but if a child is not hungry or has had too much of that reinforcement, it may not work anymore. Once a child begins to respond consistently, reinforcements can be used intermittently. This, in turn, builds stability in the behavior by increasing delays between behavior and reinforcement.

In addition to reinforcing behaviors as they occur, teachers may also choose to use a process known as shaping. Shaping involves reinforcing behaviors using a hierarchy of small, easy-to-master steps in order to shape a final behavior. This allows teachers to guide, or shape, the student's behavior into the final desired behavior, using manageable bits of change.

## BEHAVIOR REDUCTION

Behavior reduction, on the other hand, involves applying undesired consequences or withholding reinforcements in

order to influence behavior. This method is recommended only when positive alternatives have been found to be ineffective. If this method is used, it should be paired with positive reinforcement in order to reinforce the acceptable behaviors. Those adults who are involved with the child should also use it consistently, and the method should be paired with a verbal or motor warning. Finally, it should be promptly delivered and administered in a non-emotional, non-judgmental fashion. When using this method of behavioral intervention, it is suggested that prior to use, written approval be obtained from the parents, administrators, and others involved. The plan should include details regarding who will administer the intervention, what specifically will be done, and how long the procedure will last before evaluation for effectiveness.

Extinction is a specific form of behavior reduction in which reinforcement is withheld for unwanted behaviors. For example, if a child consistently bangs on the desk to get the teacher's attention, the teacher would work toward reducing this behavior by refusing to acknowledge the child's request for attention until a more desirable behavior is used. Due to the nature of this process, extinction is most effective when paired with other types of intervention (such as reinforcement).

## Conclusion

All children are unique, bringing with them a set of needs and skills that is completely their own. This is especially true for children with autistic spectrum disorders. By becoming familiar with the characteristic symptoms of ASDs and the methods for working with children who have ASDs, childcare professionals are better able to meet the needs of these students and to build the skills those students need to interact with the world around them. Please visit the Internet resources listed below for current research on ASDs, or for further ideas on classroom techniques and interventions.

## Internet Resources

Association for Science in Autism Treatment: <http://www.asatonline.org>

Autism Help: <http://www.autism-help.org>

Autism Research Institute (ARI): <http://www.autism.com>

Autism Society of America: <http://www.autism-society.org>

Autism Speaks/National Alliance for Autism Research: <http://www.autismspeaks.org>

Center for Autism and Related Disabilities at Florida Atlantic University: <http://www.coe.fau.edu/CARD/>

Center for Autism and Related Disabilities at Florida State University: <http://autism.fsu.edu/>

Center for Autism and Related Disabilities at University of Florida: <http://www.card.ufl.edu/>

Center for Autism and Related Disabilities at University of Miami/Nova Southeastern University: <http://www.umcard.org/>

Center for Autism and Related Disabilities at University of South Florida: <http://card-usf.fmhi.usf.edu>

Centers for Disease Control and Prevention Autism Information Center: <http://www.cdc.gov/ncbddd/autism/>

The Council for Exceptional Children (CEC): <http://www.cec.sped.org>

A Guide to IEPs prepared by the Office of Special Education and Rehabilitation Services U.S. Department of Education (OSEP): <http://www.ed.gov/parents/needs/spced/iepguide/index.html>

MAAP Services for Autism, Asperger's, and PDD: <http://www.aspergersyndrome.org/>

National Dissemination Center for Children with Disabilities: <http://www.nichcy.org>

National Institute of Child Health and Human Development (NICHD): Autism Spectrum Disorders: <http://www.nichd.nih.gov/health/topics/asd.cfm>

National Institute of Neurological Disorders and Stroke: Autism Information Page: <http://www.ninds.nih.gov/disorders/autism/autism.htm>

National Institute on Deafness and Other Communication Disorders Clearinghouse: <http://www.nidcd.nih.gov>

National Institute of Mental Health (NIMH): Publications on Autism Spectrum Disorders: <http://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-pervasive-developmental-disorders/index.shtml>

Organization for Autism Research: <http://www.researchautism.org>

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