

Impact

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Feature Issue on Supporting Success in School and Beyond for Students with Autism Spectrum Disorders

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With the support of his family and his support staff, Keith Kennedy (second from left) is shaping an active, productive life as a young adult. See story on page 3.

This is Me: Ryan's Story

by Ryan Birkemose

My life is not anything spectacular. I am not some child prodigy or someone who went to college at age 15. I am simply a person who happens to have Asperger's Syndrome. Overall, I do not think of it as a barrier for living a relatively normal life in America.

Back when I was first diagnosed in 1999 I was 10 years old and attending fourth grade. The person who finally realized what I had was the school psychologist. In those early years I was largely separated from mainstream classes – only going to my best subject at the time, history. I was volatile, capable of throwing enormous outbursts of rage at things I could not understand the first time I heard them. This was especially the case with math. Unlike so many children with Asperger's I have known my skills in mathematics are fair at best. This was by far my biggest barrier. Simple addition and multiplication I could understand. But word problems – they were my demons. I dreaded them in school, and at home. So, many nights I would fight with my mother about them until I was sent to my room. I fought with my teacher about them until I was blue in the face and my head ached.

It was not until the sixth grade that I felt I was comfortable with a mainstream class. I attended all that year, except for math. In seventh grade, I finally went back into mainstream math, with the help of an aid. This aid was also present in other areas of study that I found to be difficult. Gradually, I felt less and less need for any sort of aid. Now, in twelfth grade, my only presence inside the special education department is the one hour I spend inside the Asperger's Room. Often I use the time for home-

[Birkemose, continued on page 30]

From the Editors

Autism Spectrum Disorders (ASD) are reported as the sixth most commonly classified disability among young people receiving special education services in American schools, and it has been estimated that as many as 500,000 young people in the U.S. (birth to 21 years) have an Autism Spectrum Disorder (CDC, 2006; www.cdc.gov/ncbddd/autism/asd_common.htm). There is still much to be learned about ASD – about the causes; the best ways to identify ASD in early childhood and begin early interventions; and the best ways to support the academic, social, and vocational success of students with ASD. In December, President Bush signed into law an act that, among its provisions, includes allocation of funding for further research on the frequency and causes of ASD, as well as research to improve screening tools and interventions. As that and other research adds to our current knowledge, educators, families, and individuals with ASD will have more information to use in making decisions that support the development of the full potential of each student with ASD. While that work of seeking to better understand ASD continues, there are some things that have been discovered so far that are important in supporting success in school and beyond for students with ASD. It is those insights that we share in this Impact.

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Autism Spectrum Disorders: Definitions and Implications

by Travis Thompson

Autism (Early Childhood Autism) was first described by Leo Kanner in 1943 in a paper titled, *Autistic Disturbances of Affective Contact*. Kanner captured the three core features of what later came to be called *Autism Spectrum Disorders* (*ASDs*): disturbances of social relationships, limited use of language to communicate, and fixed repetitive interests and routines (Kanner, 1943). In 1994, the American Psychiatric Association provided a new definition in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*, recognizing Autism as a family of related neurodevelopmental disabilities with degrees of disability (APA 1994/2000).

Autism Spectrum Disorders include Autistic Disorder, Pervasive Developmental Disorder Not Otherwise Specified, and Asperger's Disorder. *Autistic Disorder* involves a combination of impairment in social interaction and in communication, and restricted repetitive patterns of behavior, interests, and activities, with an onset prior to 36 months of age. Autistic Disorder differs from *Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS)* in that repetitive stereotyped behavior is not necessary for a PDD-NOS diagnosis, but is necessary for an Autistic Disorder diagnosis. *Asperger's Disorder* is an Autism Spectrum Disorder first identified by Hans Asperger in 1944. Individuals with Asperger's Disorder have impairment in social interactions, restricted and stereotyped interests that cause limitations in social and other areas of functioning, but with no significant language or cognitive development delay, nor lack of age-appropriate self-help skills (Asperger, 1944). Individuals with Asperger's Disorder often have a pedantic, literal way of speaking and narrow interests.

Some children appear to be developing relatively typically, but around two

years of age lose skills, including language and social skills. This is called *Regressive Autism*. Though there are theories about the cause of Regressive Autism, there is no compelling evidence of what causes the regression. Because many children who develop Autism (including those with regressive Autism) exhibit social differences within the first year of life, it is possible the causes of Autism are present at birth, but skill loss progresses rapidly around two years.

Judith Miles at the University of Missouri identified two major categories of Autism that may be important for understanding the multiplicity of causes: Essential and Complex (Miles et al., 2005). *Complex Autism* includes individuals for whom there is evidence of abnormal early embryonic development, with either differences in physical appearance or small head size. The remainder have *Essential Autism*. Complex Autism accounts for 20% of the Autism population. Individuals with Complex Autism tend to have lower IQs, more seizures, more abnormal EEGs, and more brain MRI differences. Essential Autism appears to be inherited, occurring in individuals who have more relatives with Autism and at a higher male to female ratio. Individuals with Essential Autism have fewer seizures and are more apt to develop Autism with a regressive onset.

Intensive early intervention studies indicate that about half of children with an ASD diagnosis overcome many of the language and social skills deficits that limit their participation with their families, schools, and communities by the time they enter kindergarten or first grade (Sallows & Graupner, 2005). These rapidly-learning children function intellectually within the typical range and are integrated in regular education classrooms. Many continue to display subtle language and social differences, but participate meaningfully in school and in

New Autism Act Signed

On December 19, 2006, President Bush signed into law the *Combating Autism Act of 2006*. This Act authorizes expanded activities related to Autism research, prevention, and treatment through 2011. Specifically, the Act authorizes:

- Research under the National Institutes of Health to address the entire scope of Autism Spectrum Disorders (ASD).
- Regional Centers of Excellence for Autism Spectrum Disorder Research and Epidemiology. These Centers collect and analyze information on the number, incidence, correlates, and causes of ASD and other developmental disabilities (DD). The Act also authorizes grants to States for collection, analysis, and dissemination of data related to Autism.
- Activities to increase public awareness of Autism, improve the ability of health care providers to use evidence-based interventions, and increase early screening. The Act authorizes the Secretary of Health and Human Services to:
 - Provide information and education on ASD and other DD to increase public awareness of developmental milestones;
 - Promote research into development and validation of reliable screening tools for ASD and other DD, and disseminate information on those screening tools;
 - Promote early screening of individuals at higher risk for ASD and other DD;
 - Increase the number of individuals who are able to confirm or rule out a diagnosis of ASD and other DD;
 - Increase the number of individuals able to provide evidence-based interventions for individuals diagnosed with ASD or other DD; and
 - Promote the use of evidence-based interventions for individuals at higher risk for ASD and other DD as early as practicable.

Excerpted and adapted from www.whitehouse.gov/news/releases/2006/12/20061219-3.html.

their communities. Children with lower entry IQ, no language, and lack of joint attention or imitation tend to learn less rapidly during early intervention and profit more from a functional curriculum and augmentative communication.

As children with ASDs progress through middle and high school, academic and social challenges may require accommodations and adapted curricula. For example, youth with Asperger's Disorder or high functioning Autism may read words and sentences well, but comprehension requiring inferential reasoning may create limitations, requiring adapted assignments. Relationships

with peers requiring understanding figures of speech and metaphorical language that is typical of teenagers' communication often requires support from parents and teachers.

ASDs are complex, and additional research is needed to more fully understand them. Nonetheless, for all students on the Autism spectrum, the presence of appropriate supports in school, home, and community settings – supports based on the best available knowledge about ASDs and on individual student needs – can create the context for students with ASDs to meaningfully participate in school and in life.

References

- American Psychiatric Association (APA). (1994/ Rev 2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR* (4th edition, text revision). Washington DC: American Psychiatric Association.
- Asperger, H. (1944). Die 'Autistischen Psychopathen' im Kindesalter, Archiv für Psychiatrie und Nervenkrankheiten, 117, pp.76-136 Translated by Uta Frith (ed.) (1991) *Autism and Asperger Syndrome*. New York: Cambridge University Press
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217-250
- Miles, J.H., et al. (2005) Essential versus complex Autism: Definition of fundamental prognostic subtypes. *American Journal of Medical Genetics Part A*, 135(2), 171-80.
- Sallows, G. O. & Grapner, T.D. (2005) Intensive behavioral treatment for children with Autism: Four-year outcome and predictors. *American Journal on Mental Retardation*, 110, 417-438.

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Our Wonderful, Complex Son Keith

"Mom, the microwave is on fire," called Keith's younger brother, Alex, with more amazement in his voice than panic. Keith had set two steel wool pads ablaze with a simple push of the one minute button. After extracting the flaming pads with ice tongs and tossing them into the kitchen sink, I reminded myself that life with Keith was never boring. But this constant need for hyper vigilance was nerve wracking, exhausting, and becoming increasingly challenging as Keith, our wonderful, complex, son with Autism Spectrum Disorder, grew older.

I'm here to tell you that there is a light at the end of the tunnel. More than 10 years have passed since the microwave incident. Keith is 23 years old. When he was 17, we received word from Keith's developmental disabilities worker that there was an opening at a group home 20 minutes away from our house. My husband and I thought we might start looking at some group homes when Keith was 18-21 years old. We assumed it would be an arduous process. As good fortune would have it, we liked the group home and the people involved with it. We decided to give it a try, and Keith has lived there for the past six years. Over the years we have seen him mature and become increasingly more independent in his self-care skills.

Keith was able to continue in his high school through age 21. He is the youngest "consumer" in his home. While the other folks went to their jobs, Keith would get picked up for school. During his last two years at high school, we attended information sessions on jobs and toured several recommended workplaces. After he graduated, Keith was able to start work at a training services center, where he continues to work today doing a variety of supervised jobs and enjoying the various

opportunities for community experiences and recreation the program provides.

Keith is not on the high-functioning end of the Autism spectrum. He speaks in one to two word utterances and follows simple routines and directions. Activities that require using both hands together in an integrated way are difficult for him. Writing, dressing with ties and fasteners, and using utensils and tools are extremely challenging tasks. Nevertheless there are a number of tasks Keith can do with supervision. It is reassuring to know that he is able to be productive and active as a young adult in a workplace with experienced, caring staff.

We recently attended an annual review of Keith's progress. His meeting was coordinated with family, group home staff, work staff, and county staff. Although he is a vulnerable adult, (and yes, he still likes a good fire in the grill or fireplace), Keith continues to make gains, learn new skills, and bring joy to those who love and care about him.

Contributed by Keith's mom, Linda Kennedy, Roseville, Minnesota.

Identification and Assessment of Autism Spectrum Disorders

by Karen Cadigan and Teri Estrem

An increased awareness of Autism Spectrum Disorders (ASDs) leaves some educators and parents knowing enough to recognize extreme or classic indicators (e.g., no language at all, very aggressive behavior), but not familiar enough with the subtleties of this complicated condition to accurately rule in or out an Autism disorder. An appropriate, thorough evaluation is needed to be certain of a diagnosis at any age and doing an evaluation sooner rather than later is nearly always the best choice.

Doing an evaluation sooner rather than later is nearly always the best choice. Identification gives families answers. Unfocused concerns can cause great anxiety.

Why Identify Autism?

Identification gives families answers. Unfocused concerns can cause great anxiety, while determining that a child has an Autism disorder can lead families toward concrete information to better understand and interact with their child. Identification allows for selection of appropriate intervention. There is solid research about what kinds of programs are effective for children with ASD (e.g., National Research Council, 2001; Dawson & Osterling, 1997), and while there are philosophical and programmatic differences among them, there are important common features (e.g., high levels of structure, focus on direct instruction, substantial hours per week of intervention) that are different

from more generic intervention programs. While ASDs are considered life-long disorders and there is no known cure, the outcome for each individual is far from set in stone. There is plenty of room for improving the trajectory of each child's development, especially when intervention starts early. Research on ASD interventions indicates that many children who start treatment earlier achieve significantly better outcomes (Mundy & Neal, 2001; Sigman & Ruskin, 1999).

What Are the Indicators of ASD?

Autism Spectrum Disorders impact three areas of development: (1) language and communication skills; (2) social skills; and (3) behavior, interests, and activities. Many children with ASDs are identified in the elementary school years. But children do not develop ASDs when they are four, six or eight years old; the indicators are likely present earlier.

Early identification of ASDs requires attention to behaviors the child is not exhibiting at all or is not doing as frequently as expected at that age. Indicators of possible ASDs in very young children include the following (Rogers, 2001; Travis & Sigman, 2000):

- No big smiles or other warm, joyful expressions by six months or thereafter.
- No back-and-forth sharing of sounds, smiles, or other facial expressions by nine months or thereafter.
- No babbling by 12 months.
- No back-and-forth gestures, such as pointing, showing, reaching, waving or three-pronged gaze (e.g., child looks at adult, looks at toy to indicate interest in it, looks back at adult to communicate something about the toy) by 12 months.
- No words by 16 months.

- No two-word meaningful phrases (without imitating or repeating) by 24 months.
- Any loss of speech or babbling or social skills at any age.

One of the most reliable characteristics that differentiate children with ASDs from their typically-developing and otherwise delayed peers, even at 12 months, is that the child does not respond consistently to his or her name (assuming that hearing is normal). Several indicators that are not reliable in differentiating ASDs in early childhood include weak attachment to caregivers, having routines, lack of eye contact, lack of functional play, and unusual sensory behaviors (e.g., sensitivity to touch). When considering any of the above, especially for a disorder as complicated as an ASD, it is important that one does not conclude that a child has an ASD until a full evaluation has been completed.

In older children, identification often results from the presence of excessive behaviors. That is, an older child is identified because he or she is doing something that is atypical in one or more of the three areas (e.g., repeating certain phrases over and over, acting aggressively, memorizing textbooks, having difficulty with transitions). Among the possible indicators in older children are:

- Failure to develop peer relationships appropriate to developmental level.
- Appropriate language skills, but not using language in a socially appropriate way (e.g., impairment in the ability to initiate or sustain a conversation).
- Stereotyped and repetitive use of language or idiosyncratic language.
- Preoccupation with an interest that is abnormal in its intensity or focus.
- Inflexibility, with a "need" for non-functional routines or rituals.

In summary, identification with older children often results from the presence of excessive behaviors, while in younger children it's more often the absence of behaviors that differentiates children with ASDs from those who are typically-developing or generally delayed in development.

What Assessment Approaches Work?

If the above indicators are observed in a child, individualized assessment by an appropriately trained professional is warranted. By definition as a neurodevelopmental disability, ASDs have indicators that change with development. It is important for the professionals involved in a child's evaluation to be familiar with typical and atypical development, not just with ASDs as a disorder. While it is important to note that there is no single "test" for ASDs, good tools to guide professionals in evaluation efforts are useful, but until recently have been hard to come by. Newer screening and assessment tools include the *Autism Diagnostic Observation Schedule* (Lord, Rutter, DiLavore & Risi, 2001); *Systematic Observation for Red Flags for ASD in Young Children* (Wetherby & Woods, 2004); and the *Checklist for Autism in Toddlers* (Baron-Cohen et al., 1996). Additional checklists that professionals use regularly include the *Gilliam Autism Rating Scale* (Gilliam, 2006) and the *Childhood Autism Rating Scale* (Schopler, Reichler & Renner, 1988). The decision about what tools to use for an evaluation should be individualized based on the child's skills and needs. The final assessment plan should always include observations in multiple settings as well as a thorough interview with caregivers, including developmental history.

Educational or Medical Identification

There are some important differences in what labels mean in the school system in contrast to the medical system. Identification through the schools (or other lead early childhood agencies) is free and its end goal is to provide appropriate educa-

tional services for the child and family. However, unless made by a licensed psychologist or medical doctor (which may or may not be covered by insurance), this identification is often considered an educational classification only and a separate medical diagnosis may be needed to access services outside of what the lead agency can offer (e.g., in-home support, medication). Medical diagnoses, on the other hand, do not always come with an intervention plan or individualized services. Some families choose to start with the medical diagnosis, others begin with the educational route, and still others pursue both at the same time. For a thorough and appropriate evaluation, it is desirable to look for a team of people from different specialties (e.g., speech clinician, psychologist) who specialize in ASDs, and a process that uses a variety of tools including observation in natural environments (e.g., home, school, childcare).

What are the Challenges of Early Identification?

Making an early judgment of "on or off the Autism spectrum" is certainly not without challenges. A main challenge of early identification is that less information is available. When children are very young there are simply fewer skills available for a clear developmental pattern to emerge. Having less information to go on does not mean early identification is impossible, but sorting through the nuances can be more complex compared to evaluating older children with clearer, more complete developmental patterns. Still, putting off a decision or attributing atypical behavior to "but he's only two" is too common in both educational and medical arenas and may not be the most helpful response.

Conclusion

For additional resources about ASD assessment see the following Web sites:

- Autism Society of America at www.Autism-society.org.

- First Signs at www.firstsigns.org.
- Early Social Intervention Project at <http://esi.fsu.edu/>.

The Parent Advocacy Coalition for Educational Rights (PACER) at www.pacer.org is also a good resource, especially for questions about parent rights during the assessment process. Educators and parents who want to know more about ASD assessment for a specific child should contact the special education director in their school district for appropriate local resources.

References

- Baron-Cohen, S., et al. (1996). Psychological markers in the detection of autism in infancy in a large population. *British Journal of Psychiatry*, 178, 158-163.
- Dawson, G. & Osterling, J. (1997). Early intervention in autism: Effectiveness and common elements of current approaches. In M.J. Guralnik (Ed.), *The effectiveness of early intervention: Second generation research* (pp. 307-326). Baltimore: Paul H. Brookes Publishing.
- Gilliam, J. (2006). *Gilliam autism rating scale, 2nd edition (GARS-2)*. Austin, TX: Pro-Ed.
- Lord, C., Rutter, M., DiLavore, P.C. & Risi, S. (2001). *Autism diagnostic observation schedule*. Los Angeles: Western Psychological Services.
- Mundy, P. & Neal, A.R. (2001). Neural plasticity, joint attention and Autism. In L.M. Glidden (Ed.), *International review of research in mental retardation, volume 23* (pp. 139-168). San Diego: Academic Press.
- National Research Council (2001). *Educating children with Autism*. Washington, DC: National Academy Press. Retrieved 12/11/06 from www.nap.edu/books/0309072697.html.
- Rogers, S.J. (2001). Diagnosis of Autism before the age of 3. In L.M. Glidden (Ed.), *International review of research in mental retardation, volume 23* (pp. 1-31). San Diego: Academic Press.
- Schopler, E., Reichler, R.J., & Renner, B.R. (1988). *The childhood Autism rating scale (CARS)*. Los Angeles: Western Psychiatric Services.
- Sigman, M. & Ruskin, E. (1999). Social competence in children with Autism, Down syndrome and other developmental delays: A longitudinal study. *Monographs of the Society for Research in Child Development, Serial No. 256, 64(1)*. Chicago: University of Chicago Press.
- Travis, L.L. & Sigman, M.D. (2000). A developmental approach to Autism. In A.J. Sameroff, M. Lewis & S.M. Miller (Eds.), *Handbook of developmental psychopathology, 2nd edition*, (pp. 641-55). New York: Kluwer Academic/Plenum.
- Wetherby, A.M. & Woods, J. (2004). Systematic observation of red flags for Autism Spectrum Disorders in young children. Tallahassee, FL: Florida State University Press.

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Ten Things Every Child with Autism Wishes You Knew

by Ellen Notbohm

Some days it seems the only predictable thing about it is the unpredictability. The only consistent attribute – the inconsistency. There is little argument but that autism is baffling, even to those who spend their lives around it. The child who lives with autism may look “normal,” but his or her behavior can be perplexing and downright difficult.

Equipping those around our children with a simple understanding of autism's most basic elements has a tremendous effect on our children's ability to journey towards productive, independent adulthood.

Autism was once thought an “incurable” disorder, but that notion is crumbling in the face of knowledge and understanding that is increasing even as you read this. Every day, individuals with autism are showing us that they can overcome, compensate for, and otherwise manage many of autism's most challenging characteristics. Equipping those around our children with a simple understanding of autism's most basic elements has a tremendous impact on our children's ability to journey towards productive, independent adulthood. Toward that end, here are 10 things every child with autism wishes you knew:

1. I am first and foremost a child. I have autism. I am not primarily “autistic.” My autism is only one aspect of my total character. It does

not define me as a person. Are you a person with thoughts, feelings and many talents, or are you just fat (overweight), myopic (wear glasses) or klutzy (uncoordinated, not good at sports)? Those may be things that I see first when I meet you, but they are not necessarily what you are all about.

As an adult, you have some control over how you define yourself. If you want to single out a single characteristic, you can make that known. As a child, I am still unfolding. Neither you nor I yet know what I may be capable of. Defining me by one characteristic runs the danger of setting up an expectation that may be too low. And if I get a sense that you don't think I “can do it,” my natural response will be: Why try?

2. My sensory perceptions are disordered. Sensory integration may be the most difficult aspect of autism to understand, but it is arguably the most critical. It means that the ordinary sights, sounds, smells, tastes and touches of everyday that you may not even notice can be downright painful for me. The very environment in which I have to live often seems hostile. I may appear withdrawn or beligerent to you, but I am really just trying to defend myself. Here is why a “simple” trip to the grocery store may be hell for me: My hearing may be hyper-acute. Dozens of people are talking at once. The loudspeaker booms today's special. Musak whines from the sound system. Cash registers beep and cough, a coffee grinder is chugging. The meat cutter screeches, babies wail, carts creak, the fluorescent lighting hums. My brain can't filter all the input and I'm in overload! My sense of smell may be highly sensitive. The fish at the meat counter isn't quite fresh, the guy standing next to us hasn't showered today, the

deli is handing out sausage samples, the baby in line ahead of us has a poopy diaper, they're mopping up pickles on aisle 3 with ammonia. I can't sort it all out. I am dangerously nauseated.

Because I am visually oriented (see more on this below), this may be my first sense to become overstimulated. The fluorescent light is not only too bright, it buzzes and hums. The room seems to pulsate and it hurts my eyes. The pulsating light bounces off everything and distorts what I am seeing – the space seems to be constantly changing. There's glare from windows, too many items for me to be able to focus (I may compensate with “tunnel vision”), moving fans on the ceiling, so many bodies in constant motion. All this affects my vestibular and proprioceptive senses, and now I can't even tell where my body is in space.

3. Please remember to distinguish between won't (I choose not to) and can't (I am not able to). Receptive and expressive language and vocabulary can be major challenges for me. It isn't that I don't listen to instructions. It's that I can't understand you. When you call to me from across the room, this is what I hear:
“*&%\$#@, Billy. #\$\$%^*&%\$%?” Instead, come speak directly to me in plain words: “Please put your book in your desk, Billy. It's time to go to lunch.” This tells me what you want me to do and what is going to happen next. Now it is much easier for me to comply.

4. I am a concrete thinker. This means I interpret language very literally. It's very confusing for me when you say, “Hold your horses, cowboy!” when what you really mean is “Please stop running.” Don't tell me something is a “piece of cake” when there

is no dessert in sight and what you really mean is "This will be easy for you to do." Idioms, puns, nuances, double entendres, inference, metaphors, allusions and sarcasm are lost on me.

5. Please be patient with my limited vocabulary. It's hard for me to tell you what I need when I don't know the words to describe my feelings. I may be hungry, frustrated, frightened or confused but right now those words are beyond my ability to express. Be alert for body language, withdrawal, agitation or other signs that something is wrong.

Or, there's a flip side to this: I may sound like a "little professor" or movie star, rattling off words or whole scripts well beyond my developmental age. These are messages I have memorized from the world around me to compensate for my language deficits because I know I am expected to respond when spoken to. They may come from books, TV, the speech of other people. It is called "echolalia." I don't necessarily understand the context or the terminology I'm using. I just know that it gets me off the hook for coming up with a reply.

6. Because language is so difficult for me, I am very visually oriented. Please show me how to do something rather than just telling me. And please be prepared to show me many times. Lots of consistent repetition helps me learn.

A visual schedule is extremely helpful as I move through my day. Like your day-timer, it relieves me of the stress of having to remember what comes next, makes for smooth transition between activities, helps me manage my time and meet your expectations. Here's a great Web site for learning more about visual schedules: www.cesa7.k12.wi.us/sped/autism/structure/str11.htm.

7. Please focus and build on what I can do rather than what I can't do. Like any other human, I can't learn in

an environment where I'm constantly made to feel that I'm not good enough and that I need "fixing." Trying anything new when I am almost sure to be met with criticism, however "constructive," becomes something to be avoided. Look for my strengths and you will find them. There is more than one "right" way to do most things.

8. Please help me with social interactions. It may look like I don't want to play with the other kids on the playground, but sometimes it's just that I simply do not know how to start a conversation or enter a play situation. If you can encourage other children to invite me to join them at kickball or shooting baskets, it may be that I'm delighted to be included.

I do best in structured play activities that have a clear beginning and end. I don't know how to "read" facial expressions, body language or the emotions of others, so I appreciate ongoing coaching in proper social responses. For example, if I laugh when Emily falls off the slide, it's not that I think it's funny. It's that I don't know the proper response. Teach me to say "Are you OK?"

9. Try to identify what triggers my meltdowns. Meltdowns, blow-ups, tantrums or whatever you want to call them are even more horrid for me than they are for you. They occur because one or more of my senses has gone into overload. If you can figure out why my meltdowns occur, they can be prevented. Keep a log noting times, settings, people, activities. A pattern may emerge. Try to remember that all behavior is a form of communication. It tells you, when my words cannot, how I perceive something that is happening in my environment.

10. If you are a family member, please love me unconditionally. Banish thoughts like, "If he would just...." and "Why can't she...." You did not fulfill every last expectation your parents had for you and you

wouldn't like being constantly reminded of it. I did not choose to have autism. But remember that it is happening to me, not you. Without your support, my chances of successful, self-reliant adulthood are slim. With your support and guidance, the possibilities are broader than you might think. I promise you – I am worth it.

And finally, three words: Patience. Patience. Patience. Work to view my autism as a different ability rather than a disability. Look past what you may see as limitations and see the gifts autism has given me. It may be true that I'm not good at eye contact or conversation, but have you noticed that I don't lie, cheat at games, tattle on my classmates or pass judgment on other people? It's also true that I probably won't be the next Michael Jordan. But with my attention to fine detail and capacity for extraordinary focus, I might be the next Einstein. Or Mozart. Or Van Gogh. They had autism too.

The answer to Alzheimer's, the enigma of extraterrestrial life – what future achievements from today's children with autism, children like me, lie ahead? All that I might become won't happen without you as my foundation. Be my advocate, be my friend and we'll see just how far I can go.

© 2005 Ellen Notbohm. Adapted and reprinted with permission of the author. Ellen Notbohm is author of the ForeWord Book of the Year Honorable Mention winner, "Ten Things Every Child with Autism Wishes You Knew," and "Ten Things Your Student with Autism Wishes You Knew," a 2006 iParenting Media Award recipient. She is also co-author of the award-winning "1001 Great Ideas for Teaching and Raising Children with Autism Spectrum Disorders." For book excerpts, article reprint permission or to contact Ellen, please visit www.ellennotbohm.com.

Navigating the Maze of Special Education Law and Practice with Students with ASD

by Dan Stewart

When a dispute occurs over the educational programming and services for children with disabilities, there can be dramatic consequences for all involved. Disputes may draw upon limited time and energy, tax the emotional resources of parents and school staff alike, and damage the crucial family-school relationship that is necessary to developing and implementing school services for children with disabilities. There is growing evidence that children with Autism Spectrum Disorders (ASD) and their

It is vital for educators to have a good understanding of the basic educational rights of students with ASD and school legal responsibilities.

families are disproportionately involved in disputes. For example, based on a review of available Minnesota Department of Education data, in 2005 students with ASD in Minnesota were involved in about 20% of all administrative special education complaints, but these students represented only around 6% of Minnesota's total special education student population.*

Given this context, it is vital for educators to have a good understanding of the basic educational rights of students with ASD and school legal responsibilities. This article highlights those basic rights, and also presents some tips and strategies that can assist school staff and parents to avoid and/or positively address disputes.

First, state and federal law outline the basic legal rights of students with disabilities. While the specific details of the

laws are complex, educators can take an important step by understanding five main principles that form the legal underpinnings of special education law:

- *Free appropriate public education.* School districts must ensure that a student's education is meaningful and is designed to allow the student to progress.
- *Least restrictive environment.* Students with disabilities must be educated to the maximum extent appropriate with their non-disabled peers.
- *Parent and student participation.* Parents and students have the right to be involved and provide consent to many vital educational decisions.
- *Individualized Education Program (IEP) team process.* An IEP team that includes the parents, as well as the student if they wish to and can be involved, makes the educational decisions regarding the student. This is in stark contrast to the school making the decisions by itself.
- *Due process protections.* There are a variety of notice and procedural provisions, as well as informal and formal protections, that allow parents and students to advocate for and enforce their legal rights.

Second, it's important to understand that these principles are infused within the overall special education process, which can be broken down into five main areas: (1) "child find" (proposing to evaluate a child who may have special education needs); (2) formal evaluation; (3) development of an IEP; (4) implementation of the IEP; and (5) review, revision, and re-evaluation, which allows for continually monitoring and fine tuning. Other main areas that are important to understand are legal provisions concerning discipline, restraints and use of time-out rooms, and extended school

year (ESY) services (ESY allows certain students to access services during longer curricular breaks).

Third, despite the best efforts of all involved, disputes can still occur. An awareness of common trouble-spots that others have faced can be an important tool to head-off at least some problems. There are a number of common legal disputes that occur in the following areas: not having comprehensive evaluations, having incomplete or inappropriate IEPs, not planning for or improperly using restraints or time-out rooms, not reviewing and revising IEPs when necessary, and failure to plan for or implement ESY services.

Finally, while knowledge of the main principles, overall special education process, and common legal issues may prevent some problems from occurring, it is crucial to recognize that many, if not most, special education disputes arise when school staff and parents have mismatched understandings, expectations, or beliefs, or when there is miscommunication or a lack of communication. Further, some parents associate a stigma with having a child with special education needs. These issues may be complicated when families and staff come from different socioeconomic or cultural backgrounds, speak different native languages, and have varying levels of support. Many problems in appropriately serving children with ASD are wrapped up in group dynamics of the IEP process. School staff can help prevent these problems by taking the following steps:

- *Understand the human dimension.* Recognize that IEP team members have different perspectives on the student and have different experiences.
- *Create and use clear, evidence-based progress reports.* Having a common and understandable measure of student progress helps to clarify where

the student is succeeding and where there are problems.

- *Spend time in planning for thoughtful and productive IEP team meetings.* Everyone is busy, and if there is a well-designed agenda for a meeting, there is a greater chance of effectiveness.
- *Prepare for problems.* Discuss, before a problem occurs, how the IEP team should approach and address a problem. The strategy should have benchmarks towards resolution, other options to address the problem, and a clear timeline.
- *Seek out training opportunities for professional development.* There are a

growing number of options available for increasing skills related to group dynamics, team process, and positive dispute resolution – use them.

- *Keep the focus on the student's needs.* Sometimes, interpersonal conflicts impede the functioning of an IEP team. As much as possible, base decisions on comprehensive and appropriate evaluations, student needs, objective education data, and progress reports.
- Overall, these suggestions are designed to identify, avoid, and positively address disputes that occur in the complex special education process. Don't

forget, however, to rely on your own judgment, experience, and common sense, and on other knowledgeable people, including parents, students, advocates, other staff, and legal professionals.

*Note: Data reviewed was found at <http://education.state.mn.us/WebsiteContent/ComplianceSearch.jsp> and <http://education.state.mn.us/mdeprod/groups/Finance/documents/Report/008772.pdf>.

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"A Dream is a Wish Your Heart Makes*": Brian's Story

This is about me, Brian, who, after receiving many misdiagnoses, received the correct diagnosis of high functioning Autism at age 18. Many years of transitioning from school to work, moving into my own apartment, learning independent living skills, becoming a strong self-advocate, and being a contributing member in my community have followed.

My lifelong dream was always to work with children. Upon completion of 12th grade, I had made no progress toward achieving my goal until early that summer when a program was found at a technical college teaching students to work with elderly people, people with

disabilities, and young children. I enrolled as a postsecondary option student. I was making slow but steady progress through the program when the college conducted an evaluation of my employability in that field, and recommended that I change programs. The college changed my program to job skills training, for which I received a certificate.

Following graduation, I worked in a grocery store and fast food restaurant, but continued to dream of working with children. I got so depressed, I didn't want to live. I searched for people and organizations that could help me. Within a year of graduating from Partners in Policymaking, a leadership training program for adults with disabilities sponsored by the Minnesota Governor's Council on Developmental Disabilities, I moved into my own apartment and got the job of my dreams working in a day care, where I've been for seven years. I attend conferences sponsored by the Autism Society of Minnesota, Arc, and the self-advocacy organization Advocating Change Together, where I am accepted and valued. I am empowered to speak up for myself and others. I am given knowledge about disabilities and inspired to do things I never thought I could do. I've mentored at Autism camp. I've volunteered at a day care. I get involved in my community. I help children at two elementary schools and Sunday school, play on a church softball team,

give presentations at our library, and do public speaking. This past summer, I pulled the curtain for the children's theatre and the community theatre musical production.

Throughout my school years I had unpleasant experiences most of the time because I was different than other people my age. It was helpful when teachers were patient and kind, and when they reassured me that they believed I could do it and stood up for me. The teachers who were not helpful were the ones who were impatient, short-tempered, constantly harped on me and put me down. Every year classes got harder and harder and it got easier for me to give up.

As an adult, I have workers who help me learn independent living skills. I want them to respect me and treat me like I am capable. For example, if I make a mistake, let me figure it out and correct it myself. If I don't know how to do something, I want people to help me find a method that works for me so I can do it.

Even though I did not have the advantage of early diagnosis, I did not give up. I have achieved a successful, satisfying life. I encourage everyone to work towards their dreams and goals even when it gets difficult. Never underestimate the abilities of any person and never give up on their dreams!

*Note: This line is from a song in the Disney film *Cinderella* (1950). Brian Heuring lives in Litchfield, Minnesota.

Providing Culturally and Linguistically Appropriate Services for Students with ASD

by Gregory A. Cheatham

We have many families and children from culturally and linguistically diverse backgrounds in special education programs today. With the recognition of their unique strengths and needs, school professionals should provide these students and families with appropriate special education services. In this article, challenges and opportunities in meeting the needs of culturally and linguistically diverse students and families are discussed. The approach presented here is designed for students and families from a variety of backgrounds and students with a variety of disabilities including Autism Spectrum Disorders (ASD).

Challenges

Collaboration is a critical component of providing appropriate services to children with ASD and can be challenging for professionals and families. Professionals working with culturally and linguistically diverse students and their families may need to consider parents' and students' first and second language proficiency, understandings of the special education system, and culture-based perceptions of appropriate educational services and of disabilities (Harry, 1992).

Studies suggest that diverse parents of students with special needs may have strong opinions regarding their interactions with special education professionals. For example, Harry, Allen, and McLaughlin (1995) found that some parents felt that their input was not valued, time and scheduling were limited, paperwork was emphasized over collaboration, professional communication was not easily understood, and parents were not placed on an equal footing with school professionals. These perceptions resulted in parent discomfort and parents feeling unable to influence their children's education. Such perceptions can also make trusting, reciprocal relationships chal-

lenging and result in parent withdrawal from meaningful involvement in their children's education (Rao, 2000). This lack of involvement can be particularly problematic given the need for parent-professional partnerships and planning for students with ASD.

Some parents may come to the collaboration table with very different perspectives than school staff about disability, the child's behavior, and educational approaches. For example, families from a culture in which members tend to view disability as a stigma may react differently to special education professionals and students' educational interventions than families who view disability more neutrally (Lynch, 1998a). Moreover, many diverse families foster interdependence to a greater degree than mainstream families such that family members maintain a sense of reliance on each other (Lynch, 1998b). As Lynch notes, while special education services may focus on independence skills, some diverse families may not emphasize these same skills at home due to their cultural beliefs about parenting. Consequently, some families may continue to help their children with skills such as feeding or organizing homework materials beyond the time where school professionals believe support is necessary or appropriate. Assessing and addressing family priorities is critical to working with students with disabilities who come from diverse backgrounds (Lynch, 1998a).

In addition, there are challenges to working with culturally and linguistically diverse students with ASD. As Cheatham and Santos (2005) note, children come to school possessing culture-based behaviors, communication routines, and perspectives that may sometimes seem at odds with mainstream classrooms. For example, in some families cleaning up is more often completed by girls than boys. Consequently, some boys may be more

reluctant to clean-up and may engage in challenging behaviors to avoid this task. Similarly, some children may interact in ways considered "inappropriate" or "odd" to mainstream peers and adults, though the behaviors are not inherently "wrong." For instance, the ways students use eye contact, take turns in conversations, and respond to physical touch can be influenced by culture (Lynch, 1998b). Moreover, because of differences in culture-based verbal and non-verbal behavior, some children may have difficulty reading mainstream adults' and peers' social-pragmatic cues, such as cues to take a turn during an activity.

Opportunities

Special education professionals have an obligation and privilege to develop collaborative relationships and intervention strategies that are effective, responsive, and in the best interests of diverse students and families. These suggestions may help professionals in that process:

- Learn about the characteristics of ASD exhibited at home and at school by the individual child through discussions with school professionals (e.g., school social workers, school psychologists), the child's family, and other information sources (e.g., Web sites, the DSM-IV).
- Develop cultural self-awareness and become aware of cultural biases. Professionals can examine their family history, religious background, and socio-economic status through culture questionnaires (e.g., Lynch & Hanson, 2004) and determine how these may impact judgments about, for example, disciplining techniques, turn-taking, or the comfortable distance between two speakers (Lynch, 1998b).
- Develop an understanding of the family's culture (Lynch, 1998b)

(e.g., have the family or student draw a family tree; discuss family adherence to specific culture traits, such as perceptions of disabilities), read about the family's culture (e.g., Lynch & Hanson, 2004), and gather information through cultural informants.

- Talk with the student's family about specific behaviors and skills that are challenging to them and that their children may need to learn (e.g., ask parents whether the student's reluctance to hug is problematic to family members).
- For bilingual families, talk with parents about the family's home language (e.g., discuss family language use, language preferences, and potential impacts of using one language rather than another or two languages) (Cheatham, Santos & Ro, 2007).
- Talk with families about the ways in which the family's behavioral expectations impact children's behavior at school (e.g., ask families if it is prob-

lematic when their child lines up toys at home to decide if and how this should be addressed at school).

- With family input and participation, instruct students in new behaviors and skills. Teachers may need to emphasize that some behaviors are more appropriate at home, some at school, and others appropriate in both locations (e.g., some students may be able to learn that direct eye contact is not appropriate between parent and child though it is acceptable between peers at school).

Conclusion

Education professionals working with culturally and linguistically diverse families and their children encounter challenges as well as wonderful opportunities. Building partnerships with students and families can form a basis of determining appropriate interventions for students with ASD and their families.

References

- Cheatham, G. A., & Santos R. M. (2005). A-B-C's of bridging home and school expectations for children and families of diverse backgrounds. *Young Exceptional Children*, 8, 3-11.
- Cheatham, G. A., Santos, R. M., & Ro, Y. S. (2007). *Home language acquisition and retention for young exceptional children*. Manuscript submitted for publication.
- Harry, B. (1992). *Cultural diversity, families, and the special education system: Communication and empowerment*. New York: Teachers College Press.
- Harry, B., Allen, N., & McLaughlin, M. (1995). Communication versus compliance: African-American parents' involvement in special education. *Exceptional Children*, 61, 364-377.
- Lynch, E. W., & Hanson, M. J. (2004). *Developing cross-cultural competence: A guide for working with young children and their families*. Baltimore: Paul H. Brookes Publishing.
- Lynch, E. W. (1998a). Conceptual framework: From culture shock to cultural learning. In E. W. Lynch & M. J. Hanson (Eds.) *Developing cross-cultural competence: A guide for working with young children and their families* (pp. 23-45). Baltimore: Paul H. Brookes Publishing.
- Lynch, E. W. (1998b). Developing cross-cultural competence. In E. W. Lynch & M. J. Hanson (Eds.) *Developing cross-cultural competence: A guide for working with young children and their families* (pp. 47-89). Baltimore: Paul H. Brookes Publishing.
- Rao, S. S. (2000). Perspectives of an African-American mother on parent-professional relationships in special education. *Mental Retardation*, 38, 475-488.

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Federal Programs Offering ASD Research and Resources

The following is a partial list of federal programs involved with research and information-sharing on Autism Spectrum Disorders (ASD):

- **Autism Information Center, Centers for Disease Control and Prevention (CDC)** (www.cdc.gov/ncbddd/dd/ddautism.htm). The CDC funds state-based programs known as the Autism and Developmental Disabilities Monitoring (ADDM) Network, and the Centers of Excellence for Autism and Developmental Disabilities Research and Epidemiology (CADDRE). The work of the programs includes tracking the prevalence rates of Autism and related disorders in different parts of the country, improving community and service provider awareness of ASD, identifying which factors increase the likelihood a child will have an ASD, and identifying other disabilities children with ASD may have. The
- Web site includes information about the research activities and findings of the networks, and resources for families, researchers, and youth.
- **Autism Research Network, National Institutes of Health (NIH)** (www.autismresearchnetwork.org). The NIH supports two major research networks dedicated to understanding and treating Autism: The Collaborative Programs of Excellence in Autism (CPEA) Network, and the Studies to Advance Autism Research and Treatment (STAART) Network. They focus on the causes, diagnosis, early detection, prevention, and treatment of Autism. The Web site includes descriptions of network activities, findings, publications, and other resources.
- **The Association of University Centers on Disabilities** (www.aucd.org). AUCD is a

non-profit network of interdisciplinary, federally-funded centers nationwide advancing policy and practice for and with individuals with developmental and other disabilities, their families, and communities. Its members are University Centers for Excellence in Developmental Disabilities (funded by the Administration on Developmental Disabilities); Leadership Education in Neurodevelopmental Disabilities Programs (funded by the Maternal and Child Health Bureau); the Developmental Disabilities Research Centers (funded by the National Institute for Child Health and Development); and other university centers. Through its Web site (see <http://search.aucd.org/>, enter "Autism") over 1,000 Autism-related publications, projects, services, and researchers from member centers are available.

Critical Skill Sets for Special Education Teachers Working with Students with ASD

by Lynn Stansberry-Brusnahan and Phil Sievers

Chris has a puzzling neurodevelopmental disorder formally diagnosed as Pervasive Developmental Disorder and more commonly known as Autism Spectrum Disorder. Children with Autism Spectrum Disorders (ASD) are present in classrooms across our country, with a prevalence rate of 1 in 166 children (CDC, 2006). The Individuals with

Minnesota has proposed specific competencies for special education teachers working with students with Autism Spectrum Disorders that may be applicable in any state.

Disabilities Education Act (IDEA) mandates a continuum of education and service options in the least restrictive environment for students with disabilities. To meet this mandate is challenging because many regular educators do not have special education experience or education. And even experienced special education teachers may need additional preparation to work effectively with students who have ASD.

In response to this need for specialized teacher preparation in the area of ASD, Minnesota has proposed specific competencies for special education teachers working with students with ASD that may be applicable in any state. The competencies, modeled on the Council for Exceptional Children's (CEC, 2000) common core for beginning special education teachers, were developed under a Minnesota Department of Education grant and are intended to do the following (Minnesota Autism Project, 2006, p. 1):

- Provide a common base of understanding that outlines relevant knowledge and skill competencies in ASD consistent with current promising practices and research.
- Guide the organization of staff development initiatives and selection of training topics.
- Influence the development of coursework and ASD certificate programs in institutes of higher education.
- Provide an option for staff to individually guide and document their ASD educational experience and expertise.

This article highlights some of the critical knowledge and skill sets identified in Minnesota's competencies and illustrates their usefulness through the story of "Chris," a composite of students whose profile mirrors that of many with ASD in schools today. Competencies in the areas of *Foundations in the Education of Learners with ASD*, *Development and Characteristics of Learners with ASD*, *Assessment of Learners with ASD*, *Instructional Strategies for Learners with ASD*, and *Collaboration in the Education of Learners with ASD* will be discussed.

Foundations

The competencies in the area of *Foundations in the Education of Learners with ASD* are the following (Minnesota Autism Project, 2006, p. 2):

- Knowledge of the theories and research that provide the basis for special education and related services for individuals (birth-21) with ASD.
- Knowledge of legal issues that impact education and practice in the field of special education and related services for individuals with ASD.
- Knowledge of the impact of medical and neurological perspectives on the education of individuals with ASD.

- Skill in accessing information regarding theories, research, medical and legal requirements and their relation to current promising practices in education for individuals with ASD.

Using the illustration of Chris, in his school the administration recognized the importance of setting the proper foundation for his teachers by providing opportunities for acquisition of the knowledge and skills outlined above that are necessary to work effectively with him. The school obtained professional resources on ASD including journals and audio-visual materials. Professional development opportunities were provided in the school setting and opportunities to attend Autism Society conferences and local university courses were made available. By utilizing these competencies, the school laid the proper foundation to support inclusion for Chris.

Characteristics

The competencies in the area of *Development and Characteristics of Learners with ASD* are the following (Minnesota Autism Project, 2006, p. 2):

- Knowledge of early indicators of ASD in infants/toddlers, pre-schoolers, and school-age children.
- Knowledge of possible courses of development and outcomes in individuals with ASD from infancy to adulthood.
- Knowledge of the range of communication, social and behavioral characteristics, and coexisting conditions associated with ASD.
- Skill in articulating the early indicators, characteristics, and learning styles of students with ASD to parents and other staff.

Individuals with ASD share a consistent pattern of characteristics, but manifest

them in different ways. There is a range of possible courses of development and outcomes in individuals with ASD. Chris entered kindergarten with undiagnosed ASD, but his teachers immediately recognized his individual learning differences. Education on the development and the characteristics of ASD gave them the tools to spot the early indicators and initiate an assessment (see next competency area). Because they had participated in university coursework on ASD, his teachers were able to understand the impact of the combined effects of his impaired communication skills, limited social cognition and interaction, idiosyncratic sensory behaviors, restricted range of interests, and unusual behaviors on his ability to learn. Since strategies that work for

Chris entered kindergarten with undiagnosed ASD, but his teachers immediately recognized his individual learning differences.

Education on the development and characteristics of ASD gave them tools to spot the early indicators and initiate an assessment.

one student may not be effective for another, Chris' teachers contacted his pre-school to gain information on strategies that they had used successfully with Chris. By utilizing these competencies, his teachers had the knowledge they needed to spot the early signs of ASD and develop a plan to assess his individual special needs.

Assessment

Competencies in the area of *Assessment of Learners with ASD* are the following

(Minnesota Autism Project, 2006, p. 4):

- Knowledge of strengths and limitations of instruments and procedures used to screen and evaluate for eligibility for special education services under the ASD category.
- Knowledge of state criteria for eligibility and comprehensive evaluation for students with ASD.
- Knowledge of the impact of cultural and linguistic diversity on the evaluation of individuals with ASD (i.e. social values, customs, language comprehension, etc.).
- Skill in using procedures and instruments to screen and evaluate for ASD eligibility and determine needs.

As mentioned earlier, Chris entered kindergarten with undiagnosed ASD, but his teachers spotted the early indicators. A team comprehensively evaluated Chris utilizing a wide array of instruments because of the limitations of any single instrument to evaluate ASD. Chris met his state's ASD educational criteria for eligibility. He simultaneously received a medical diagnosis of Autism in addition to his two co-existing conditions – a seizure disorder and Obsessive-Compulsive Disorder. By utilizing these competencies, his school was able to provide an accurate assessment and ensure he could receive services for which he was eligible.

Instructional Planning and Strategies

The competencies in the area of *Instructional Strategies for Learners with ASD* are the following (Minnesota Autism Project, 2006, p. 3):

- Knowledge of research-supported instructional methods and promising practices for toddlers, preschoolers, and school-age individuals with ASD.
- Skill to implement research-based instructional practices and strategies appropriate for toddlers, preschoolers, and school-age individuals with ASD.
- Skill to consider assistive technology options for individuals with ASD

(e.g. picture/symbol exchange communication systems, electronic devices, sensory equipment, visual schedules, and others).

- Skill to implement instructional programs that improve social skills and interactions between students with ASD, their peers, and adults across various settings.
- Skill to implement instructional programs that address transition needs of individuals with ASD (i.e., jobs and training, home living, recreation and leisure, community living, and postsecondary education).
- Skill to demonstrate the ability to accurately collect and interpret data to document progress on outcomes for students with ASD, and make necessary changes in programming when indicated.

Competency in these areas helped Chris' teachers work more effectively with him in a number of ways. After Chris' evaluation, his team collaborated to write his individualized education plan (IEP). Chris' assessment results were interpreted to design appropriate interventions. The team planned how to implement individualized goals and objectives to address the core features of ASD based on his individual strengths and identified needs. The team met on a regular basis throughout the school year to ensure implementation of a range of research-supported instructional methods and promising practices to support Chris. During these meetings the team shared current research and other resources.

Examples of some specific strategies they were able to implement because they had access to necessary knowledge and skills can be found in the social and behavior areas. In relation to social interactions, Chris has a limited range of interests and perseverates on his obsessions instead of socializing with people. Utilizing education they received, his team implemented an instructional program to improve and foster social skill development through ongoing peer interactions, direct

[Stansberry, continued on page 31]

Early Intervention for Children with ASD

by Ilene S. Schwartz and Carol A. Davis

All children with Autism Spectrum Disorders (ASD) benefit from early intervention. And even though ASD is a lifelong disability, some children make remarkable progress as a result of early intervention. Our purpose in this article is to review some recent history about early intervention services for children with ASD and describe what is accepted as evidence-based best practices.

Some Recent History

The landscape of intervention for children with ASD changed drastically in the late 1980s. In 1987, Ivar Lovaas reported the results of a research study that compared intensive home-based intervention of 40 or more hours a week to a less intense intervention of approximately 10 hours a week. He reported that 9 of the 19 participants in the intensive intervention group made such significant gains that they entered first grade without special education services and were indistinguishable from their typically-developing peers. None of the children in the less intense intervention groups made such significant gains.

The intervention and findings reported by Lovaas (1987) were popularized largely by a book by Catherine Maurice published in 1994. In *Let Me Hear Your Voice: A Family's Triumph Over Autism*, she describes the experience of her own children and how they "recovered" from Autism as a result of early intensive behavioral intervention (EIBI). This book transformed a research report into information that was available in the popular press. Along with the increasing popularity of e-mail and the Internet, the book sparked a firestorm of interest and information (some quite accurate, some not so evidence-based) for parents, educators, and policy-makers interested in interventions for young children with ASD. Suddenly, parents were requesting 40 hours a week of intervention for their very young chil-

dren with ASD from their public schools and early intervention providers. These requests raised a number of issues including, "Is this intervention a free, appropriate public intervention?"; "Should school districts be providing this?"; "If so, how will schools and early intervention providers pay for these services?"; and perhaps most important, "Is this intervention effective?" Questions about the effectiveness of this type of intervention are largely based on the failure of other researchers to replicate the Lovaas study. Replication of research findings is an essential component in determining whether an intervention strategy can be considered to be evidence based.

Currently, we do not have very much definitive information about what makes EIBI effective. Although there are many models of preschool programming that have shown promising results (e.g., Boulware, Schwartz, Sandall, & McBride, in press; Handleman, & Harris, 2000; Schwartz, Sandall, McBride, & Boulware, 2004), we do not have any solid evidence comparing one strategy to another or comparing different intensities of services (e.g., 25 hours a week to 40 hours a week).

What Do the Experts Recommend?

In 2001, the Committee on Educational Interventions for Children with Autism of the National Research Council published their report in book form entitled, *Educating Children with Autism* (NRC, 2001). This committee was formed at the request of the U.S. Department of Education's Office of Special Education Programs, and was charged "to integrate the scientific, theoretical, and policy literature and create a framework for evaluating the scientific evidence concerning the effects and features of educational interventions for young children with autism" (p. 13). After a thorough and well-documented review of the literature, the committee devel-

oped conclusions and made recommendations that are essential reading for anyone interested in early intervention for children with ASD.

According to the NRC report, effective programs for young children with ASD include the following characteristics (NRC, 2001, pp. 220-221):

- A minimum of 25 hours a week, 12 months a year, of systematically-planned educational activity.
- Sufficient individual attention every day so that Individual Family Service Plan (IFSP) and Individualized Education Program (IEP) objectives can be addressed with adequate intensity.
- Ongoing assessment.
- Successful interactions with typically-developing children.
- Instruction in the areas of functional spontaneous communication, social interaction, play skills, cognitive skills taught in a manner to facilitate generalization, proactive and effective approaches to challenging behavior, and functional academic skills.

Parents and providers can use these recommendations as a starting place for planning and evaluating early intervention programs for children with ASD. As in planning every program for children with disabilities, it is essential to consider individual needs and strengths of a child and the priorities of the family in this planning process. A program that uses these recommendations as guidelines would be well on the way to designing interventions that are effective, that meet the needs of children and families, and that are legally defensible according to the Individuals with Disabilities Education Act (IDEA).

An Example of an Early Intervention Program: Project DATA

In 1997, at the University of Washington we opened the doors to Project DATA

(Developmentally Appropriate Treatment for Autism) with the help of a Department of Education, Office of Special Education, Model Demonstration Grant. Project DATA was designed to meet a need that we saw in our community to help school districts meet the needs of young children with ASD and their families in a manner that was effective, acceptable to all parties, and sustainable. Our project was developed to combine the best practices from applied behavior analysis and early childhood special education into a program for children that recognized the unique learning characteristics and support needs of children with ASD, and also recognized that children with ASD are children first.

Project DATA consists of five components. The core component is an integrated early childhood program for about 12 hours a week. We want every child with ASD to have opportunities to interact successfully with typically-developing children. To make the interactions successful, they may need to be planned and supported systematically. This component is not just about being with typically-developing children; it is about interacting with and developing relationships with typically-developing children.

The second component of our program is extended, intensive instruction. Three days a week, preschool children in Project DATA have an extended school day. During this time children receive additional, explicit instruction on IEP objectives and on other behaviors that will help them be successful in the classroom, home, and community. Instruction can be provided one-on-one or in small groups. The size of instructional groups and the instructional strategies that are used depend on the child, the objective being taught, and the child's progress as measured by daily data collection. This component adds approximately 12 hours a week of time at school for every child. In addition, we ask parents to work with their child at home for at least five hours a week.

The third component of Project DATA is technical and social support for families. All families receive a monthly home

visit and are required to participate in at least six hours of educational programming every year. The first year that children are in Project DATA, parents are required to participate in a class on teaching basic skills. In subsequent years, parents can participate in Project DATA educational classes on specific topics (e.g., play or teaching communication skills), or participate in other educational opportunities available in the community (e.g., the Autism Society of Washington conference).

The next component is collaboration and coordination across services. Almost every family with whom we work has some type of family-negotiated service for their child with ASD. We define a family-negotiated service as a therapeutic service that the school district does not pay for. These services may include speech therapy, home-based behavioral programming, or horseback riding therapy. Once a year we attempt to have a meeting of all the therapeutic providers for the child and the parents. The purpose of these meetings is to foster communication and collaboration, not to do joint planning or evaluation.

The final component of Project DATA is transition planning and support. We know that transitions are difficult for all children and families, but they may be especially stressful for children with ASD and their families. We work with the school district, the preschool, and the family to insure that adequate planning occurs to facilitate a smooth transition. This may include teaching some skills specific to the new environment (e.g., carrying lunch on a tray), transferring visual supports, and providing an opportunity for the child to visit the new school and meet his or her new teacher a few days before school starts.

Many indicators point to the success and sustainability of Project DATA. First is child outcomes. All the children enrolled in Project DATA make gains and some make gains that are quite substantial. Of the 62 children enrolled in Project DATA as preschoolers, over half (58%) attended kindergarten with

typically-developing students. Many completed all of elementary school in inclusive settings and have continued into inclusive middle school placements. Another important outcome is parent perceptions. Repeatedly, parents report to us that "Project DATA changed our lives." Families report that they are able to include children in family and community activities and are optimistic about their outcomes. The final indicator is support from public schools. The project at UW is currently funded by a local school district, and Project DATA has been replicated by a number of other districts in our state and across the country. Together these indicators point to robust and socially valid outcomes for children and their families.

Conclusion

Project DATA is only one example of what effective early intervention services can look like for children with ASD. The important thing to remember is that there is no one right way to educate children with ASD, and a program is only successful if a child is making progress.

References

- Boulware, G., Schwartz, I.S., Sandall, S.R., & McBride, B.J., (in press). Project DATA for toddlers: An inclusive approach to very young children with ASD. *Topics in Early Childhood Special Education*.
- Handleman, J. S., & Harris, S. (2000). *Preschool education programs for children with Autism* (2nd ed.). Austin, TX: PRO-ED.
- Lovaas, O.I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55(1), 3-9.
- Maurice, C. (1993). *Let me hear your voice: A family's triumph over Autism*. New York: Ballantine Books.
- National Research Council (NRC). (2001). *Educating children with Autism*. Washington, DC: National Academy Press. [Online at www.nap.edu/books/0309072697/html/.]
- Schwartz, I.S., Sandall, S.R., McBride, B.J., & Boulware, G.L. (2004). Project DATA (Developmentally Appropriate Treatment for Autism): An inclusive, school-based approach to educating children with Autism. *Topics in Early Childhood Special Education*, 24, 156-168.

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Effective Practices for Students with ASD

by Richard L. Simpson

In recent months, both television and print media have given exceptional attention to the increasingly prevalent and enigmatic conditions of Autism Spectrum Disorders (ASD). This is clear testament to the extraordinary interest this topic holds for both professionals and the general public. For instance, *Town and Country*, a popular magazine best recognized for profiling fashion trends and society events and goings-on,

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recently published an article on Autism (Guernsey, 2006) that included information on prevalence rates, diagnostic signs, causes, treatment alternatives, and support resources. The notable and widespread interest in ASD was similarly revealed in a recent feature article in *Time* (Wallis, 2006). Both the *Time* cover story and *Town and Country* article (along with myriad similar reports) are particularly noteworthy because they address interests that are shared by professionals and the general public. Indeed, it is clear that many of us are struggling to understand many of the same fundamental issues connected to ASD.

Issues in Effective Interventions

One topic of considerable interest relates to identifying and correctly using intervention and treatment methods that

have the best chance of producing positive outcomes in the lives of children and youth diagnosed with ASD. Interestingly, Wallis (2006), the author of the *Time* article, strongly implied that facilitated communication (Biklen, 1993), arguably a highly controversial intervention, was an effective practice. Many professionals, of course, will recognize facilitated communication as a method that behavioral scientists have unmistakably proven to lack efficacy based on numerous studies (Wheeler, Jacobson, Paglieri & Schwartz, 1993). Conceding that facilitated communication is indeed a controversial method, Wallis nevertheless offered that "it (facilitated communication) clearly turned Hannah's life around. Since her breakthrough, she no longer spends much of her day watching *Sesame Street* and *Blue's Clues*. Instead, she is working her way through high school biology, algebra and ancient history" (p. 44). In highlighting and tacitly recommending a highly controversial intervention for individuals with ASD, this journalist identifies several underlying, fundamental issues that confront parents and professionals connected to children and youth with ASD:

- There is significant lack of agreement within the field of ASD regarding methods that are most effective.
- The meaning and nature of what comprises and constitutes an effective and scientifically-based practice is imprecise and undecided.
- There are few practical and well-designed guidelines that professionals and families can use to make methodology-related decisions.

Accordingly, a fundamental issue confronting the field of ASD relates to identifying and correctly using the most efficacious methodologies, treatments, and strategies.

The fundamental elements that comprise an effective practice for students with ASD are open to debate. Neverthe-

less, federal policy, research implications, and logical and commonsense thinking lead to the undeniable conclusion that it is essential that children and youth with ASD have access to the most effective methods. Children and youth with ASD are in particular need of effective practices because they have been especially prone to encounter and suffer unproven and controversial treatments and interventions. A number of these purported ASD intervention methods lack theoretical, clinical and/or empirical foundation, yet often promise dramatic and all-encompassing improvements and even restoration to normalcy. They promise hope for positively responding to a lifelong disability that not only lacks a clear etiology, but also a clearly effective plan of treatment. That's why professionals and parents who are given opportunities to use methods and treatments that promise dramatic improvements, even if the approach being considered lacks scientific validation, may be willing to "take a chance" and consider using techniques and strategies that all too frequently have little to offer.

Identifying Effective Practices

There appear to be two principal actions associated with identifying effective practices. The first involves identifying fundamental features associated with effective interventions, and evaluating the effectiveness of existing methods that are purported to be suitable for use with children and youth with ASD. This includes evaluating the effectiveness with particular types of students who have specific needs and problems. The second involves creating mechanisms for evaluating future ASD intervention methods and strategies. That is, since new methods are constantly being introduced, rating and evaluating existing methods is only a partial answer to the effective practice issue. Evaluation strategies that can be used by practitioners

and others are needed to facilitate assessments of new methods and their suitability with individual students.

A tremendous amount of work needs to be done on both these fronts, yet progress is being made. For instance, the Committee on Educational Interventions for Children with Autism, Division of Behavioral and Social Sciences and Education, National Research Council (2001) identified several basic characteristics that should be in place in educational programs designed for young children with ASD:

...early [age] entry into an intervention program; active engagement in intensive instructional programming for the equivalent of a full school day, including services that may be offered in different sites, for a minimum of five days a week with full-year programming; use of planned teaching opportunities, organized around relatively brief periods of time for the youngest children (e.g., 15–20 minute intervals); and sufficient amounts of adult attention in one-to-one or very small group instruction to meet individualized goals. (p. 6)

In addition, Simpson and colleagues (2005) have evaluated commonly used interventions and treatments for children and youth with ASD. Grouped within 5 categories (interpersonal relationship; skill based; cognitive; physiological/biological/neurological; and other), 33 ASD methods were evaluated using the following considerations:

- Reported outcomes and effects.
- Qualifications of persons implementing the intervention or treatment.
- How, where, and when the intervention or treatment is best administered.
- Potential risks associated with the intervention or treatment.
- Costs associated with using the intervention or treatment.
- Methods for evaluating the effectiveness of the method.

Based on these factors, methods were assessed as being one of the following:

- *Scientifically-based.* Practices that have “significant and convincing empirical efficacy and support” (p. 9).
- *Promising practice.* Strategies that have “efficacy and utility with individuals with ASD” (p. 9), even though the method requires additional objective verification.
- *Practice having limited supporting information.* Those that lack objective and convincing supporting evidence, with unsure or potential utility and usefulness.
- *Not recommended.* Interventions and treatments that were judged to lack effectiveness and that have the potential to be harmful.

The following practices were found to meet the highest standard, that of the *scientifically-based* category:

- Applied behavior analysis (Alberto & Troutman, 2003).
- Discrete trial training (Maurice, Green & Luce, 1996).
- Pivotal response training (Koegel, Koegel, Harrower & Carter, 1999).
- *Learning Experiences: An Alternative Program for Preschoolers and Parents* (LEAP; Strain & Hoyson, 2000).

Basic progress is also being made in creating mechanisms for evaluating future ASD methods. Heflin and Simpson (1998) and Simpson (2005) recommended that basic questions be used by professionals and parents to determine the appropriateness of various interventions with students with ASD, including:

- What are the proven efficacy credentials of purported interventions and treatments, and do anticipated outcomes of particular practices line-up with the needs of individual students?
- What are the potential risks associated with a method?
- What is the most effective means of evaluating a particular method or approach?

Summary Thoughts

There is little chance that there is a single best-suited and universally effective method for all learners with ASD. However, it is clear that there are effective methods that should form the foundation of programs for students with ASD. And without question there are some methods and strategies that are associated with better outcomes for these children and youth. The best programs for students with ASD appear to be those that integrate a variety of objectively verified practices and that are designed to address and support the needs of individual students. It is essential that the field continue to make progress in identifying and using those methods that have the greatest potential for achieving desired outcomes, and evaluating future methods that purport to be suitable for use with students with ASD.

References

- Alberto, P., & Troutman, A. (2003). *Applied behavior analysis for teachers* (6th ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.
- Biklen, D. (1993). *Communication unbound: How facilitated communication is challenging traditional views of Autism and ability/disability*. New York: Teachers College Press.
- Guernsey, D. (2006, August 1). Autism's angels. *Town and Country*, 90-102.
- Heflin, J., & Simpson, R. (1998). Interventions for children and youth with Autism: Prudent choices in a world of exaggerated claims and empty promises: Part 11: Legal policy analysis and recommendations for selecting interventions and treatments. *Focus on Autism and Other Developmental Disabilities*, 13(4), 212-220.
- Koegel, L., Koegel, R., Harrower, J., & Carter, C. (1999). Pivotal response intervention 1: Overview of approach. *The Journal of the Association for Persons with Severe Handicaps*, 24(3), 174-185.
- Maurice, C., Green, G., & Luce, S. (1996). *Behavioral intervention for young children with Autism: A manual for parents and professionals*. Austin, TX: PRO-ED.
- National Research Council. (2001). *Educating children with Autism*. Washington, DC: National Academy Press.
- Simpson, R.L. (2005). Evidence-based practices and students with Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities*, 20(3), 140-149.
- Simpson, R., et al. (2005). *Autism Spectrum Disorders: Interventions and treatments for children and youth*. Thousand Oaks, CA: Corwin Press.
- Strain, P., & Hoyson, M. (2000). The need for longitudinal, intensive social skill intervention: LEAP follow-up outcomes for children with Autism. *Topics in Early Childhood Education*, 20(2), 116-122.
- Wallis, C. (2006, May 15). Inside the autistic mind. *Time*, 43-51.
- Wheeler, D., Jacobson, J., Paglieri, R., & Schwartz, A. (1993). An experimental assessment of facilitated assessment. *Mental Retardation*, 31(1), 49-60.

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Effective Transition Planning for Learners with ASD Approaching Adulthood

by Peter F. Gerhardt

Despite the transition requirements of IDEA and a growing body of research in support of effective transition planning for middle and high school students with Autism Spectrum Disorders (ASD) (e.g., Schall, et al., 2006), adults on the spectrum remain without employment in large numbers (e.g., Howlin, 2000) and, even those generally regarded as most capable too often live lives of social isolation, dependence, and few opportunities to improve their quality of life (Howlin, Goode, Hutton, & Rutter, 2004). This outcome can be seen as an indicator of system failure, and evidence that there is a "disconnect" between what research indicates is possible in terms of competent adulthood for learners with ASD (e.g., Smith, Belcher & Hughes, 1995), and the outcomes most commonly realized (Gerhardt & Holmes, 2005).

There is a critical need to revisit the ways in which such learners are prepared for adult life beyond the classroom, in the community, and on the job. Although not exhaustive, some considerations toward that end should include the following:

- Consider all learners to be "employment-ready."
- View first jobs as learning experiences.
- Promote creativity in job development.
- Provide co-worker training.
- Develop active ties with the local business community.

Consider All Employment-Ready

If we are to consider all learners with ASD to be employment-ready, then the concept of "work-readiness" needs to be redefined. Work-readiness is a term generally used to describe a cohort of skills considered pre-requisites for employment success. These might include time on task, low levels of challenging behavior,

some degree of social competence, etc. In practice, however, work-readiness as a barometer of employment competence has, instead, excluded far more people with ASD from the workforce than it has enabled to find employment. Given that many of the basic skills necessary to get (and keep) a job are best learned while on the job (hence the phrase "on the job training") then the generally accepted definition of work-readiness results in a "Catch 22" situation for the majority of learners with ASD. In effect, high work-readiness expectations result in a system where, first, you are considered unemployable because you don't have the requisite skills and, second, you can't acquire the requisite skills because the opportunity to do so is denied to you. Redefining work-readiness to acknowledge all persons with ASD as being potentially viable candidates for employment, and providing practical, hands-on employment opportunities, is clearly in order.

View First Jobs as Learning

I know of few typical adults for whom their first job turned out to be their final, or dream, job. Most adults go through a series of jobs – some bad, some good – on their own particular path toward an, ideally, fulfilling career. The question that presents itself, then, is "Wouldn't this be the same for adults with ASD?"

As noted earlier, first jobs are most important in that they provide the transitioning learner with ASD the opportunity to develop the skills necessary to keep and hold a job. In addition, first jobs provide the opportunity for individual learners to develop a sense of which types of work and working conditions would be best for them, and subsequently, increase their level of community inclusion and status. Even a first job

that fails to last longer than a few hours (though certainly not the goal) can be a valuable experience, particularly if we are then able to determine what about the job did not meet the learner's needs, abilities, interests, preferences, and idiosyncrasies. Was the job too noisy? Were the production demands too high? Was there too much general activity and confusion? Was there not enough for him or her to do? This meeting of individual preferences and job characteristics is at times referred to as the "job match" (e.g., Ochocka, Roth, & Lord, 1994) or goodness of fit (e.g., Shalock & Jensen, 1986). A positive job match means that the production and social/communicative demands, and environmental characteristics, of a job are preferred or, in fact, enjoyed by the employee. For many learners with ASD for whom pay may not be a primary motivating factor, the degree of job match can be the critical variable determining employee/employer satisfaction versus a return to unemployment.

Promote Creativity

Today, the economy of the United States is primarily a service economy (as opposed to a production economy) with many of the available jobs requiring some degree of technical, social and organizational (i.e., the ability to multi-task) competence. While certainly challenging, this complexity can work to the advantage of transitioning learners through a process known as job-carving (Nietupski & Hamre-Nietupski, 2000). Job-carving is a process which takes advantage of the complexity of the job market by "carving out" individual tasks from more complex, multi-task jobs. Carved-out tasks are then combined to create a new, economically viable job specifically designed to meet the needs of the transitioning learner, his or her

employer, and customers. For a job-carve to work, it is of critical importance that the needs of all noted parties are met, otherwise the economics of the situation will eventually require the termination of the carved job. Good job-carving requires a direct knowledge of a potential employee's abilities, interests, and limitations; a comprehensive understanding of the employer's needs; solid observational and analysis skills; and competent negotiating skills.

Support and Train Co-Workers

Despite professional recognition of the diversity of expression associated with ASD, the community at large has generally come to understand the disorder through the character of Raymond Babbit in the movie "Rainman." As such, absent any direct experience with someone on the spectrum, employers and co-workers will tend to have a fairly limited understanding of ASD in general, and almost no understanding of the potential of someone on the spectrum to be a valued employee and/or co-worker. In most cases employers, supervisors, and co-workers will require some degree of training if both work-based production competence and social inclusion are to be realized. A few potential areas of training include:

- A brief, jargon-free introduction to ASD and how it impacts the life of their new colleague.
- Individual likes, dislikes, and preferences as they may relate to the performance of the job.
- Effective strategies for interacting with their new colleague (e.g., a preference for concrete language).
- Effective strategies for supporting a socially inclusive workplace.
- The role and responsibilities of the job coach, if one is provided.
- How to provide performance feedback to their new colleague.
- Basic information regarding any idiosyncratic or unusual patterns of behavior that may occur on the job.

Develop Community Ties

Most schools or agencies providing services to transitioning learners with ASD are either government entities or are incorporated as non-profit organizations. As such, they are generally organized and administered differently than a similarly sized, for-profit business in the community. Differences in mission, organizational structure, and finances (to name a few) may result in something of a "culture clash" between the goals of the educational organization (i.e., providing the education necessary to succeed post-graduation) and those of the for-profit business (e.g., promoting an efficient workforce to maximize investors' profits). In order to better understand and address these potential differences, the development of active ties to the local business community in the form of a Business Advisory Council can be of significant benefit to the school or other non-profit agency. While the primary goal of the Business Advisory Council (BAC) is to increase employment opportunities for individuals with ASD, the secondary goal is to provide information, insight and, if necessary, direct instruction to school staff on how to most effectively work with the local business community. The BAC can promote greater access to employment by:

- Identifying areas of potential job development and local hiring trends.
- Providing training on how to more effectively interact with potential employers for developing jobs.
- Offering training in clearly identifying employer demands and expectations, and soliciting mutually useful feedback.
- Providing direct access to a pool of potential employers.
- Assisting in the development of employer-friendly materials.

Developing and maintaining active ties to the local business community, through an involved BAC, should be considered a worthwhile, if not essential, tool toward translating the transition goals of each individual into more readily obtainable transition outcomes.

Conclusion

In the United States, adults with ASD continue to exist outside the employment mainstream in numbers far greater than is appropriate or acceptable. Among the many reasons for this continued under-employment are the disconnect between the potential of adult learners with ASD and the resources of the systems designed to provide programmatic support, the absence of a legislative entitlement to services as an adult, inadequate or inappropriate transition planning, and, to some extent, limited interest in supporting adult learners in general and in particular those with greater cognitive or behavioral challenges. While these challenges are significant, they are not insurmountable. It is both possible and desirable for adults with ASD to be gainfully employed, and to live lives of quality (e.g., Bannerman, Sheldon, Sherman, & Harchik, 1990). The task ahead then is to take this possibility and translate it into a certainty... sometimes one person at a time.

References

- Bannerman, D.J., Sheldon, J. B., Sherman, J. A. & Harchik, A. E. (1990). Balancing the right to habilitation with the right to personal liberties: The rights of people with developmental disabilities to eat too many doughnuts and take a nap. *Journal of Applied Behavior Analysis*, 23, 79-89.
- Gerhardt, P.F. & Holmes, D.L. (2005). Employment: Options and issues for adolescents and adults with Autism, In F.Volkmar, R. Paul, A. Klin, & D. Cohen (Eds.) *Handbook of Autism and Pervasive Developmental Disorders* (3rd Ed.), (pp. 1087-1101). New York: John Wiley & Sons, Inc.
- Howlin, P., Goode, S., Hutton, J., & Rutter, M., (2004). Adult outcomes for children with Autism. *Journal of Child Psychology and Psychiatry*, 45, 212-229.
- Howlin, P., (2000). Outcome in adult life for more able individuals with Autism or Asperger Syndrome. *Autism*, 4, 63-83.
- Nietupski, J.A., & Hamre-Nietupski, S. (2000). A systematic process for carving supported employment positions for people with severe disabilities. *Journal of Developmental and Physical Disabilities*, 12, 103-119.
- Ochocka, J., Roth, D., & Lord, J. (1994). Workplaces that work: Successful employment for people with disabilities. *Journal of Developmental Disabilities*, 3, 29-50.
- Schall, C., Cortijo-Doval, E., Targett, P.S., & Wehman, P. (2006). Applications for youth with Autism spectrum disorders. In P. Wehman (Ed.), *Life beyond the classroom: Transition strategies for young people with disabilities*, (4th Ed.), (535-575). Baltimore: Paul H. Brookes Publishing.
- Shalock R.L. & Jensen C.M. (1986). Assessing the goodness-of-fit between persons and their environment. *Journal of the Association for Persons with Severe Handicaps*, 11, 103-109.
- Smith, M.D., Belcher, R.G., & Juhrs, P.D., (1995). *A guide to successful employment for individuals with Autism*. Baltimore: Paul H. Brookes Publishing.

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Teaching Social Skills to Students on the Autism Spectrum

by William D. Frea

Teaching social skills to students on the Autism spectrum can be one of the most challenging and rewarding tasks that educators undertake. The social skills component of the educational program determines the functional success of every other goal. It is through social abilities that academic knowledge is conveyed in the real world. Even com-

The social skills component of the educational program determines the functional success of every other goal.

munication skills carry minimal power if social skills are not developed to ensure opportunities to communicate.

Three Components of a Social Skills Program

There are three critical components to any social skills program: (1) creating opportunities across the day for social skills to flourish, (2) preparing peers to support the use of social skills, and (3) planning direct instruction time to ensure the acquisition of new social skills:

- *Creating opportunities.* A basic assessment of the social opportunities that exist within routines of the student's day is necessary. This can begin with a basic sketch of the day from morning to night. The assessment begins very descriptively, as each period of the day will have different social opportunities depending on the classmates, teacher, subject, etc. Once the team has an understanding of the natural opportunities in which to insert social skills, a skills matrix can be developed (see Figure 1). This allows

anyone to see where individual social skills will be prompted and used throughout the day. These routines will support the generalized and functional use of the acquired social skills.

- *Preparing peers.* Peer-mediated social skills programs have a rich history of success. Well-supported peers can teach nearly any social skill. Unless the student has had ongoing peer supports in place, this step begins with recruiting willing peers. Select peers who are social and accepting. Openly discuss what it means for them to be trained in fostering the development of social skills. Their training will involve an instructor modeling teaching methods to the peers and then supporting them as they attempt to teach social skills for the first time. It is important to praise their efforts and motivate them by including the peers in team meetings and decisions regarding modifying the program.

- *Planning direct instruction time.* Individual or small group instruction times need to be secured if social skills development is expected to move forward. As with any difficult new skill there needs to be time to practice and receive feedback. Social skills, as with all skills, move from individual instruction to generalization. As new skills are acquired in direct instruction they move into natural opportunities with peer supports. This opens up room for new skills to be acquired in direct instruction.

Structure as the Critical Variable

Teaching social skills can become a challenge as the student gets older and peers appear more difficult to access. There is no time to waste when address-

ing the social skills needs of students with Autism, as these skills will be required for later success with maintaining jobs, relationships, and access to the community. It is often necessary to take an intensive approach to instruction. The use of Discrete Trial instructional strategies has resulted in numerous validated intervention strategies. While there are many techniques under the umbrella of Discrete Trial social skills teaching methods (e.g., self-management, video modeling, pivotal response training), all have the variable of structure to consider.

Skills can be learned under conditions of very tight structure or very loose structure. Tight structure includes a teacher sitting across from the student modeling new social skills. The student is asked to imitate the teacher. As the skill is practiced repeatedly, the student has many opportunities to practice and perfect the skill. Loose structure may involve the student in a natural social routine with peers. During this loose structure several opportunities can be created incidentally for the social skill to be practiced.

There are benefits and risks to each. Tight structure offers fast acquisition, while loose structure offers better generalization. However, under tight structure there is a risk of the student not understanding how to use the skill under more natural social conditions. While, under loose structure there is the risk that skills will take a very long time to develop as there are only a limited number of opportunities to practice. That is why you *always need both tight and loose structure*. A good program will have the right amount of tight and loose structure to give the student the acquisition time and generalization opportunities he or she needs.

A student who is currently moving slowly in social skills development may

need at least half of his or her social skills instruction time to be under tight structure (e.g., one-to-one or small group instruction). This will move the program faster, and give the student the future skills needed to be successful under loosely structured social situations. As the student becomes more successful, more instructional time can move into the loosely structured and more generalized social opportunities. A student who is more rapidly meeting social skills goals may have a program that is 20% in tight structure and 80% in loose structure. Thus, if the student has a five hour per week social skills program, one hour would be in individual direct instruction and four hours would involve the skills being prompted and rewarded in natural social environments (e.g., peer-mediation).

Involving Peers

Involved peers can accelerate the success of the program. Lack of peer involvement can result in social behaviors that never truly become functional skills. The program's success depends on peers being prepared to teach and support appropriate social behaviors. Peers need to be taught to model targeted social behaviors and reinforce new social skills with well-planned, natural, social rewards. The student needs to be taught to observe peers, follow peer instructions, receive feedback (e.g., praise, prompts) from peers, seek help from peers, and enjoy the company of peers.

A typical social skills program will target different types of initiations, responses, question asking, and skills to extend interactions (e.g., commenting, complimenting). It is ideal for peers to be involved in the selection of the social behaviors that will be taught. This results in better contextual fit when learning in the looser structure of natural peer interactions. The initial stage of teaching peers should be intensive, with the instructor spending some time with the peers alone. This time is spent modeling how the individual social skills can be taught. It is also a time to promote

	School Arrival	Social Studies	Resource Room	Lunch	Recess
<i>Comment to Peer</i>	X	X	X	X	X
<i>Ask a Social Question</i>	X			X	X
<i>Compliment a Peer</i>	X	X	X	X	X
<i>Start a New Activity</i>				X	X
<i>Initiate a New Conversation</i>				X	

Figure 1: Sample Social Skills Matrix indicating where social skills will be prompted and used during the natural routine of the school day.

the importance of the work they are doing. This is a time for team building and motivation building.

Self-Monitoring

Self-regulation strategies have been very successful for teaching students with Autism to support their own use of social skills. Once a skill is learned in direct instruction, it can be self-monitored outside of those sessions. The student learns to observe and record his or her own behavior. Students can set goals for themselves and reward themselves for reaching those goals. They can learn to seek feedback, and to adjust their behavior in different situations. These strategies can begin to be introduced as early as second grade for students who are able to discriminate when they are and are not using a specific behavior in social contexts.

Visual Supports for Social Rules

While it is necessary to focus intensely on critical individual social skills, it is also important to instruct the student in broader social rules. It is not possible to teach every social skill and rule to the student at one time. Visual supports can be placed on walls, desks, or in journals

or notebooks to allow the student to reference what is expected in a specific routine. For example, a card could be placed on the student's desk that says, "If I need help I can..." The student can learn to depend on self-management for specific social skills, and on visual supports for the broader social rules that have not yet been added to the self-management program.

Summary

Difficulty with social skills is one of the defining features of the Autism spectrum. As we teach these students the other skills they need to thrive in adulthood we cannot forget that they will be isolated without social skills. These skills are learned through intensive practice and peer support in clearly identified natural routines. The social goals need to be overt, where the student and peer can readily label and model them. With the support of an active team including parents, teachers, and peers the student can reach his or her highest potential.

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Best Practices in Promoting Friendship Development for Students with ASD

by Lesley Craig-Unkefer

Friendships are among the most intimate and important relationships in our lives. They affect all areas of our well-being, are significant throughout our entire lives, and are shaped by the unique needs, social skills, interests, and other personal traits (such as gender) of the participants. And for students with Autism Spectrum Disorders (ASD), development of friendships is important and can be a challenge.

Benefits of Friendship

Friendships have many purposes and take many forms. In the most basic form, people spend time together pursuing activities of mutual interest, enhancing each other's self-esteem, and engaging in sharing of feelings, intimacy, and trust (Shulman, Elicker, & Stroufe, 1994; Shulman, 1993). Such friendships are mutually beneficial, providing nurturance and support to the individuals involved (Falvey & Rosenberg, 1995).

Friendships between peers with and without disabilities can result in additional beneficial outcomes that include a greater understanding and appreciation of individual differences by the typical peers, development of age-appropriate social behaviors by peers with exceptions, and expanded friendship networks as well as improved quality of life for both participants (McDonnell, Hardeman, McDonnell, Kiefer-O'Donnell, 1995; Schleien, Green, & Heyne, 1993; Abery et al., 1997). Developing relationships between students with and without disabilities that will be sustainable friendships over time requires some planning to increase the likelihood that the relationships will occur and be mutually beneficial. Teachers, caregivers, and parents of students with ASD can help set the stage for interactions between peers that can result in such friendships.

Strategies to Promote Friendship

Although programming friendships is not the primary aim of special education professionals, strategies that are curricular, instructional or community-oriented can improve the development of relationships between students with ASD and their peers (Falvey & Rosenberg, 1995). Encouraging mutually satisfying relationships that will build on the strengths and diverse needs of students is an appropriate goal for educators.

Methods to promote friendships, and to promote interactions that may lead to friendships as either a direct or indirect possible outcome, include (1) teacher-based strategies, (2) environmental placement, and (3) peer-mediated programs that either focus on instruction (teaching a particular skill or task) or on social, play, and leisure engagement that facilitate social skill development. The effectiveness of these methods with school-age individuals with ASD is unclear as investigations that specifically focus exclusively on friendship development with this population are limited (Carrington et al., 2003; Danko & Buysse, 2002; Whitaker et al., 1998).

There are various strategies to consider that promote social engagement between peers. Adult-mediated strategies focus on the active facilitation of social interactions. Given the variation of social competence and social skill of individuals with ASD, adults should promote and model acceptance with the classmates of the student with ASD. Simple actions such as using the student's name, pulling the student into ongoing activities, and supporting peers without hindering independence are some examples of actions that should be ongoing (Snell & Janney, 2000).

Social skill instruction can be a means to increase positive outcomes that will in turn promote peer accep-

tance. The instruction may be individualized or commercial and the instructional method may be adult- or peer-mediated or a combination of both. The activities associated with social skill instruction can be incorporated as a whole class or small group. The following considerations should be addressed when determining the most appropriate social skill curriculum or program: (1) the focus of the instruction should be age-appropriate; (2) there should be multiple opportunities for practice with various individuals in multiple settings; (3) discrete skills such as establishing and maintaining eye contact or joint attention should be addressed, as well as activities that require using multiple skills such as engaging in a conversation, so that the student can develop a repertoire of skills; (4) various types of supports, such as verbal and visual prompts, should be embedded in activities to increase the likelihood that these skills will be used during social interactions; (5) there should be considerations for crisis management or back-up plans; and (6) the environment should be arranged to increase social engagement.

Determining appropriate social skill instruction is a key element in relationship and friendship development. There are many commercial programs as well as individualized empirically tested interventions that focus on discrete social skills (Carter & Hughes, 2005; Snell & Janney, 2000). Social skill curricula specific to students with Autism are limited. Of those curricula that focus on instruction and are developed for students with Autism, social skill instruction may be either embedded in the curriculum and not an exclusive focus, or limited to a specific age range (Mesibov, 2005; Strain, 2000). Considering the unique nature of friendship, the most important consideration is opportunity. With opportunity comes the development of

a community in which students with ASD and their typical peers can engage in mutual and reciprocal relationships.

Four Factors Affecting Friendship

In considering the methods described above, it's also important to note that there are four factors affecting friendship development for students: (1) child characteristics, (2) child social competency, (3) social context, and (4) the developmental context. The first factor is child characteristics. A reciprocal relationship is grounded in the commonalities shared by the two individuals. Friends are more alike than different and resemble each other in sociodemographic characteristics such as age, sex, ethnicity, appearance, school-related attitudes, and aspirations (Hartup, 1996). Personality characteristics and social attitudes affect friendship selection, but sociodemographic characteristics are a more significant factor. Educators who work with students with ASD should take these characteristics into consideration in, for example, forming groups of students for activities intended to facilitate interactions that may lead to friendships.

The second factor to consider is child social competency including social, communicative, and play skills. As this is a critical feature of diagnosis and intervention for this population, promoting the basics of social skills (e.g., eye contact, joint attention, turn-taking) is essential for social competency. Both systematic implementation and incidental teaching of social skills should occur in a variety of instructional groupings (one-to one, small and large group). In addition, instructional planning of these skills should include generalization and maintenance. As there may be a difference in social skill between partners, the teacher or other adult support should consider the best case scenario for the interaction and how to make that interaction occur by considering the role of the adult in the interaction that will promote engagement between the peers without active engagement in the interaction.

The third factor is social context. Social context includes the social and physical settings where interactions occur. Inclusive settings are the most frequent context for interactions (Hendrickson, 1996). Providing frequent opportunities for contact increases the likelihood that interactions with peers will lead to friendship formation. Both academic and social interactions should be considered. There should be a purpose to the interaction, and support should be provided to the peers to sustain the interaction through prompting and reinforcement.

The final factor addresses the developmental context and ways in which the purpose and function of friendships changes over time. Throughout a person's lifetime, friendships contribute to the acquisition of skills and social competencies, as well to developmental success. These important relationships begin in childhood, becoming more complex in early adolescence (Newcomb & Bagwell, 1996). Strategies that are in accord with social, emotional, and physical development include the recognition that the conditions of friendship change over time, with reciprocity and commitment becoming a more complex condition in adolescence and beyond. Age, skill, and history of the peers should be examined over time.

Conclusion

For individuals with ASD, social interactions, friendships, and other relationships are integral to optimal educational outcomes and social development. Fostering friendships can be a complex endeavor. The strategies presented here are a starting point, but more research is needed. Activities that have a peer component are one way to promote relationship development for this population; however, there is little known of their generalized or longitudinal effects on friendship facilitation. Developing interventions that utilize the strategies that promote peer interaction and engagement, particularly those that have specified goals and objectives related to the

four considerations previously outlined, are needed. Conducting studies with strong procedures and reliable data that reflect valued outcomes is the next step in this area of research and will provide needed evidence of those best practices for friendship development for students with ASD.

References

- Abery, B., Schoeller, K., Simunds, E., Gaylord, V. & Fahnestock, M. (1997). Yes I can social inclusion program. Minneapolis, MN: University of Minnesota, Institute on Community Integration.
- Amado, R. (1993). Loneliness: Effects and implications. In R. Amado (Ed.) *Friendships and community connections between people with and without developmental disabilities*. Baltimore: Paul H. Brookes Publishing.
- Carrington, S., Templeton, E., & Papinczak, T. (2003). Adolescents with Asperger Syndrome and perceptions of friendship. *Focus on Autism and Other Developmental Disabilities*, 18, 211-218.
- Carter, E., & Hughes, C. (2005). Increasing social interaction among adolescents with intellectual disabilities and their general education peers: Effective interventions. *Research and Practice for Persons with Severe Disabilities*, 30, 179-193.
- Danko, C. & Buysse, V. (2002). Thank you for being a friend: Fostering friendships for children with autism spectrum disorder in inclusive environments. *Young Exceptional Children*, 6, 2-9.
- Falvey, M., & Rosenberg, R. (1995). Developing and fostering friendships. In M. Falvey (Ed.), *Inclusive and heterogeneous schooling: Assessment, curriculum and instruction* (pp. 267-283). Baltimore: Paul H. Brookes Publishing.
- Hartup, W. (1996). Cooperation, close relationships, and cognitive development. In W. Bukowski, A. Newcomb, & W. Hartup, (Eds.). *The company they keep: Friendships in childhood and adolescence*. New York: Cambridge University Press.
- Hendrickson, J., Shokoohi-Yekta, M., Hamre-Nietupski, S., & Gable, R. (1996). Middle and high school students' perceptions on being friends with peers with severe disabilities. *Exceptional Children*, 63, 19-28.
- McDonnell, J., Hardman, M., McDonnell, J., & Kiefer-O'Donnell, R. (Eds.) (1995). *An introduction to persons with severe disabilities*. New York: Simon & Schuster.
- Mesibov, G.B., Shea, V., & Schopler, E. (2005). *The TEACCH approach to Autism Spectrum Disorders*. New York: Kluwer Academic/Plenum.
- Newcomb, A., & Bagwell, C. (1996). The development of significance of children's friendship relations. In W. Bukowski, A. Newcomb, & W. Hartup, (Eds.) *The company they keep: Friendships in childhood and adolescence*. New York: Cambridge University Press.
- Schleien, S., Green, F., & Heyne, L. (1993). Integrated community recreation. In M. Snell (Ed.) *Instruction of students with severe disabilities* (4th ed.). New York: Merrill.
- Shulman, S., Elcker, J., & Stroufe, A. (1994). Stages of friendship in preadolescence as related to attachment history. *Journal of Social and Personal Relationships*, 11, 341-361.
- Shulman, S. (1993). Close friendships in early and middle adolescence: Typology and friendship reasoning. In B. Laursen (Ed.), *Close friendships in adolescence* (pp. 55-72). San Francisco: Jossey-Bass Publishers.
- Snell, M. & Janney, R. (2000). *Teachers' guide to inclusive practices: Social relationships and peer support*. Baltimore: Paul H. Brookes Publishing.
- Strain, P.S. & Hoyson, M. (2000). The need for longitudinal, intensive social skills intervention: LEAP follow-up outcomes for children with Autism. *Topics in Early Childhood Special Education*, 20, 116-122.

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Beginning Communication Approaches with Young Children Who Have ASD

by Joe Reichle

A number of individuals with Autism Spectrum Disorders (ASD) do not develop functional speech, while many will have sizable communicative repertoires. Their language may include a number of commonly reported characteristics such as echolalia (excessive delayed and/or immediate imitation), incessant questioning, and significant challenges taking the social perspectives of their listeners. Additionally, persons with ASD

A number of straight-forward actions appear to enhance beginning communication skills in children who have ASD.

tend to have difficulty understanding some aspects of language. Fortunately, during the past decade, social/communication skill intervention has resulted in significant forward strides.

Early childhood educators, parents, and other caregivers can play a significant role in the emergence of young children's early communicative acts. In examining the evidence-based practice literature describing successful intervention strategies, a number of straight-forward actions appear to enhance beginning communication skills in children who have ASD. The remainder of this article will summarize those actions.

Attend to Children's Focus of Attention

Increasingly, evidence supports the importance of adults who are diligent in attending to the focus of a child's attention and are immediately responsive to

the child's communicative overtures. By interacting with the child in relation to his or her focus of attention, adults can insure that the child's motivation to learn is as great as possible. Children whose caregivers named objects that were already the focus of the child's attention have been shown to have significantly larger language repertoires than children with whom this happened less often (Tomasello & Todd, 1983).

Be Responsive to Communicative Overtures

It is becoming increasingly clear that responding to children's behavior facilitates their communicative production. Hart & Risley (1995) found that children whose caregivers were most responsive to their communicative attempts developed larger vocabularies. Although talking to children is important, responding to their communicative attempts (which may be gestures or looking at/touching objects) appears to be very important in creating highly motivating communicative contexts.

Identify and Implement Joint Activity Routines

Joint activity routines are social games that adults play often with children. For example, with very young children these include games such as "peek-a-boo," and with older children these may include activities such as tossing a ball. Joint activity routines offer a number of components that facilitate social communication: (1) they have a very simple purpose; (2) the parts of the routine can be easily used by either participant; (3) they allow slight variations to facilitate generalized use (for example, "peek-a-boo" can be played with a washcloth at bath time or behind a paper plate at a picnic); and (4) they allow a large number of repeated

intervention opportunities. Taken together, these characteristics permit their use to support communication across a range of motivating situations.

Utilize Gesture and Graphic Symbols Very Early with At-Risk Children

Some have expressed the point of view that augmentative communication systems should not be implemented concurrently with attempts to establish spoken communication in children with ASD or at-risk. However, there is little scientific support for this belief. In a recent review, Millar, Light & Schlosser (2006) found no evidence that augmentative communication implementation had an impeding influence on the development of speech. In a recent study, Harris & Reichle (2004) reported that implementing graphic communication symbols paired with the interventionist's labeling of the symbol had increased the vocabulary comprehension skills of several learners with significant developmental disabilities. It is reasonable to speculate that this phenomenon holds for children with ASD. Additionally, some emerging literature suggests that augmentative communication applications may positively influence some children's communicative production (e.g., Bondy & Frost, 1994). Yoder & Layton (1988) reported that children who were likely to acquire speech after the implementation of sign instruction were those who were able to imitate speech.

An important misinterpretation of the literature is that children with ASD who require augmentative communication support will benefit more from gestural symbols (signs) than from graphic symbols (pictures, line drawings, printed words). The relative benefit of each of these appears to be somewhat learner specific (Mirenda, 2005).

Address a Variety of Communicative Functions

Among typically-developing children, communicative acts are used to behaviorally regulate others (e.g., request and protest), to establish joint attention in directing another's attention to events (e.g., commenting on events), and to further social interaction (e.g., calling, greeting, communication associated with social games). Children with ASD often have communicative acts skewed more at behavior regulation. Communicative acts such as commenting may be more challenging because children with ASD tend to be less proficient in calling the attention of others to events in their environment. It is also possible that the extensive focus of many interventionists on requesting as an early skill may further skew this propensity. Recent intervention programs (Prizant, Wetherby, Rubin, Laurent & Rydell, 2005) emphasize the introduction of different communicative functions matched to particular regularly occurring situations as a means to enhance communication.

Teach Children to Not Overuse Their Communication

Once a new communicative skill has been taught there is a possibility of over-use (over-generalization). For example, once a child learns that he or she can request assistance, the child may discover that it requires less effort to request assistance than to independently complete work that does not require help. In the past several years, successful strategies have emerged (Reichle & McComas, 2004) to reduce over-use. Using the example above for instance, the child can be taught that reinforcement is greatest for working independently, the next greatest reinforcement is available by requesting assistance, and no reinforcement is available if the task is abandoned.

Ensure New Communication Successfully Competes with Old

The degree to which the newly taught communicative behavior is efficient for the child can have a significant effect on the degree to which use in other contexts will occur. Drasgow, Halle and Ostrosky (1998) reported findings for three preschool-aged children with Autism/Pervasive Developmental Disorder and severe language delays. Baseline showed that children requested using marginally acceptable to unacceptable means (reaching, grabbing, leading). Each child was taught a replacement request (signing "please") in school, but rarely used it at home. As soon as the children's old behavior was no longer reinforced at home, two of the three learners very quickly began using the newly taught communicative alternative. Failure to generalize new behavior to other settings may actually be a decision not to use a new behavior until it is made more efficient than an old behavior.

Know That a Variety of Approaches Can Succeed

Among the continuum of available intervention approaches are *behavioral* (Discrete Trial) and *social-pragmatic* strategies. Characteristics associated with Discrete Trial approaches include: (1) one-to-one instruction, (2) a highly prescriptive curriculum, (3) an initial emphasis on responding to interventionist-delivered cues/prompts, (4) a tendency to minimize context not directly related to the skill or discrimination being taught, and (5) a sequential introduction of intervention objectives. On the other hand, components of a social-pragmatic approach tend to emphasize (1) an initial focus on turn-taking and interactive exchanges, (2) a limited amount of interventionist directiveness, (3) concurrent consideration of gestural graphic and vocal mode communication, (4) teaching new behavior in the situation in which it is expected to be used, and (5) a concurrent implementation of multiple intervention targets. Both approaches for

addressing the communication delays and deficits common in children with ASD have been recognized by many as among the most effective treatment methods to date (Dawson & Osterling, 1997). Regardless of the intervention strategy chosen, being consistent and precise in its implementation repeatedly has been demonstrated to be important.

Summary

Regardless of a child's primary communicative mode, or the intervention approach emphasized, the general considerations presented in this article have been validated in evidence-based practice. There are promising strategies that are available to those responsible for meeting the communicative needs of young children with ASD regardless of their communicative limitations.

References

- Bondy, A. & Frost, L. (1994). The picture exchange communication system. *Focus on Autistic Behavior*, 9, 1-19.
- Dawson, G., & Osterling, J. (1997). Early intervention in Autism: Effectiveness and common elements of current approaches. In Guralnick (Ed.) *The effectiveness of early intervention: Second generation research* (pp. 307-326) Baltimore: Paul H. Brookes Publishing.
- Drasgow, E., Halle, J.W., & Ostrosky, M. M. (1998). Effects of differential reinforcement on the generalization of a replacement mand in three children with severe language delays. *Journal of Applied Behavior Analysis*, 31, 357-374.
- Hart, B., & Risley, T. (1995) *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H. Brookes Publishing.
- Harris, M., & Reichle, J. (2004). The impact of aided language stimulation on symbol comprehension and production in nonverbal children with moderate cognitive disabilities. *American Journal of Speech-Language Pathology*, 13, 155-167.
- Millar, D., Light, J., & Schlosser, R. (2006). The impact of augmentative and alternative communication intervention on the speech production of individuals with developmental disabilities: A research review. *Journal of Speech, Language, Hearing Research*, 49, 248-264.
- Mirenda, P. (2005). *AAC for communication and behavior support with individuals with Autism*. Presentation at the annual convention of the American Speech, Language and Hearing Association. San Diego, CA. November.
- Prizant, B., Wetherby, A., Rubin, E., Laurent, A., & Rydell, P. (2005). *SCERTS model*. Baltimore: Paul H. Brookes Publishing.
- Reichle, J., & McComas, J. (2004). Conditional use of a request for assistance. *Disability and Rehabilitation*, 26, 1255-1262.
- Tomasello, M., & Todd, J., (1983). Joint attention and early language. *Child Development*, 4, 197-212.
- Yoder, P., & Layton, T. (1988). Speech following sign language training in autistic children with minimal verbal language. *Journal of Autism and Developmental Disorders*, 18, 217-229.

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Supporting Children and Youth with ASD Who Exhibit Challenging Behavior

by Rob O'Neill

Patterns of challenging behavior have long been associated with the diagnosis of Autism Spectrum Disorders (ASD.) Anyone with experience with such children has likely observed problems with toileting, sleep, excessive activity levels, self-stimulatory or stereotypic movements (e.g., rocking, hand flapping), and more serious behaviors such as aggression towards others (e.g., hitting, kicking), destruction of materials and the physical environment, and self-injury (e.g., hand biting, head hitting and banging). Consider Randall*, a 7-year-old student labeled as having an Autism Spectrum Disorder. Randall has

nomic consequences. They can result in significant pain, injury, and emotional distress for children and families, and for teachers providing support to them. Participation in schools, residential programs, and other community settings may be jeopardized and there is an increased risk of readmission to public residential facilities. Providing necessary support results in greatly increased costs (e.g., \$100,000 or more per year for persons with severe self-injury [NIH, 1991]). Such behaviors may place children with ASD at greater risk for abusive treatment by support staff. It is clear that challenging behavior is frequently exhibited by children with ASD, and that without intervention they are at much greater risk for a variety of negative outcomes.

Interventions for Challenging Behaviors

The two primary intervention approaches for such behaviors have been behavioral intervention and the administration of psychotropic medications; this article focuses on the former. For many years behavioral strategies predominantly focused upon reinforcement of appropriate behaviors and punishment or extinction for challenging behaviors. In recent years, concerns with such procedures have led to a more positively oriented and comprehensive approach, typically referred to as *positive behavioral support* (PBS). This approach includes a broader perspective on outcomes, an emphasis on careful functional assessment as a basis for selecting and implementing intervention strategies, comprehensive programs involving multiple components, and consideration of needed skills and systems that need to be in place to support students (e.g., Koegel, Koegel, & Dunlap, 1996).

Perhaps the most critical issue is to focus on the needs of individual students, as opposed to assuming support needs based on whether or not a child has an ASD label.

been diagnosed as also having severe intellectual disabilities, and does not exhibit any functional verbal communication. He exhibits a variety of challenging behaviors, including forcefully smacking the backs of his hands on table edges, dropping to his knees on hard floors, and a variety of aggressive behaviors such as hitting, pinching, and scratching others. He spends most of his time in a self-contained classroom for students with disabilities, working on a variety of pre-academic and functional skill training activities (e.g., toileting, dressing, communication skills). Such behaviors can have a variety of negative physical, social, educational, and eco-

A Broader Perspective on Outcomes

PBS has its roots in the field of applied behavior analysis. However, along with specific and important reductions in the frequency of challenging behavior, PBS approaches also emphasize that behavior change should result in broader positive changes in educational and community settings for students receiving support. This includes *where* they spend their time (e.g., more inclusive vs. more segregated classrooms), *with whom* they spend their time (e.g., more time with typical peers vs. paid support staff), and *what* they spend their time doing (e.g., engaged in more typical educational, domestic, leisure, and community activities). In thinking about Randall's situation described above, it would be critical to achieve reductions in his problem behavior, but if that is not accompanied by broader changes in *what* Randall is doing, *where* he's doing it, and *with whom*, we will not have done the best we can by him.

Functional Behavioral Assessment

A seminal research report by Iwata et al. (1982) is credited with sparking a resurgence of attention to the need for conducting systematic analyses as a basis for implementing interventions. Iwata et al. collected data on the occurrence of self-injurious behavior (SIB) of persons with developmental disabilities while systematically manipulating various environmental conditions. These *functional analysis* manipulations attempted to determine the reinforcement contingencies that were responsible for maintaining the SIB. Since the publication of the Iwata et al. report there has been an increasing frequency of pretreatment experimental and nonexperimental analyses (collectively known as *functional assessments*) reported in the literature, as well as an increase in the implementa-

tion of successful treatment strategies based on such analyses (Johnston & O'Neill, 2001). The success of such approaches led a National Institutes of Health Consensus Conference panel to recommend that interventions for severe challenging behaviors be based on pre-treatment assessments (NIH, 1991).

In recent years a number of states have adopted regulations that explicitly call for a functional assessment to be conducted prior to significant behavioral intervention. Along with state level standards, the last two enacted versions of the federal Individuals with Disabilities Education Act (IDEA) explicitly mandated that a functional assessment be done in situations involving serious challenging behaviors. Conducting a functional assessment of challenging behaviors prior to intervention has become an expected professional standard (O'Neill et al., 1997).

Coming back to Randall, school consultants and staff working with him conducted functional assessment interviews, and also conducted structured functional analysis manipulations in his classroom setting. These sessions involved systematically responding in various ways to Randall's challenging behavior to determine what antecedent and consequence events were setting off and maintaining it. The results indicated that the vast majority of his challenging behavior was motivated by escaping and/or avoiding when he was asked to complete various pre-academic activities. This assessment provided a solid foundation for identifying intervention strategies.

Comprehensive Multi-Element Behavioral Support Plans

It is clear that students with complex histories of challenging behavior require a comprehensive approach including (1) responding to broader setting events such as sleep, diet, medication or social interaction issues (e.g., making sure a child has breakfast before coming to school); (2) more immediate antecedent strategies (e.g., changes in levels of task difficulty); (3) strategies to teach students

more appropriate alternative behaviors (e.g., teaching a child to sign "break" when frustrated with a task or activity); and, (4) providing reinforcing outcomes for appropriate behavior (e.g., honoring requests for breaks, providing preferred activities contingent on task completion), minimizing or preventing reinforcement for challenging behavior (e.g., not allowing a child to escape a nonpreferred task), and, in some cases, providing appropriate punishing events contingent on challenging behavior (e.g., blocking aggressive hitting).

In Randall's case, assessment data indicated that he frequently was allowed to stay up very late at night, increasing problem behavior on subsequent days. Classroom staff worked with Randall's parents to implement an earlier bedtime routine. Classroom staff also modified curricular activities to more gradually lead to the eventual desired performance (e.g., providing easier tracing activities prior to moving on to more difficult printing activities). They began to provide Randall with choices about which academic or functional skill activities he would work on during a given period. A communication disorders specialist began to teach Randall some basic sign language to communicate his wants and needs in difficult situations (e.g., signing "break," "help"). Randall was provided with some graphic picture cards signifying "break" and "help", and received training in how to use those in situations likely to evoke challenging behavior. Classroom staff frequently and consistently provided desired outcomes when Randall exhibited appropriate communicative behavior (e.g., pointing to his "break" card), and provided breaks and preferred activities contingent on periods of problem-free task completion. Staff attempted to minimize or prevent reinforcement for problem behavior by attempting to keep him engaged in task activities. Even if Randall did escape task activities for a brief period, he was redirected to complete them as soon as possible. This comprehensive approach to Randall's situation produced reduc-

tions in problem behavior and an increased frequency of appropriate communicative behavior and engagement in desired tasks and activities (O'Neill & Sweetland-Baker, 2001).

Skills and Resources Needed for Providing Effective Support

We need to think about the broader systems issues that need to be addressed to enable school personnel to support a broad range of students. Support may come either from within the building, or from external resources such as district consultants, but requires some person or persons with significant behavioral expertise who can take the lead in conducting assessments and helping to develop intervention strategies (Sugai et al., 2000). Such schoolwide efforts include (1) strategies for all students in a school as a whole; (2) group strategies for the smaller portion of students at-risk for more significant challenging behavior; and (3) strategies for those requiring more intensive individualized support (e.g., students such as Randall labeled as having ASD exhibiting severe challenging behavior).

In a recent review, Horner et al. (2002) concluded that the literature does not identify any types of behavioral support interventions that are uniquely effective with children with Autism. Providing support for students requiring intensive individualized strategies is best accomplished in a broader schoolwide context. Schoolwide efforts typically involve team-based approaches which should include (1) personnel familiar with the student, including teachers, paraprofessionals, parents/family members, and in appropriate cases, the student him/herself; (2) administrative personnel who can make decisions about resource allocation; and, (3) personnel with behavioral expertise who can conduct functional assessments and develop and implement behavioral support plans. Ideally, someone on the team would also have expertise in the characteristics and performance of students with ASD; however, given the lack of

[O'Neill, continued on page 30]

Tips for Preparing Your Classroom

There are ways that you as a teacher can manipulate the physical aspects of your classroom and place children with Autism within the classroom to make them more comfortable without sacrificing your plans for the class in general. The following table provides advice about how to set up your classroom to address the particular behaviors, sensitivities, and characteristics of your individual students with Autism.

Characteristic	Classroom Adaptation
<ul style="list-style-type: none"> • Need for sameness and difficulty with transitions. 	<ul style="list-style-type: none"> • Define classroom areas: Create individual work areas, free time areas, and open areas for discussion using bookcases, cabinets. • Keep classroom consistently organized. • Choose designated seat for student. • Keep daily schedule in one place in classroom. • Develop a visual agenda to help the student understand the agenda in advance.
<ul style="list-style-type: none"> • Problematic or acting-out behavior. <p>Comment: As you get to know your student, you should also be analyzing the function of the behavior. If escape is the function, then you would not want to allow the child to "escape" without having accomplished something first or communicating appropriately the need for some self/down time. Preferably, a "break" area should be used prior to a blow up.</p>	<ul style="list-style-type: none"> • Have a recreation area or playground nearby for student to let off steam. • Identify a home base area to escape classroom stimulation for awhile.
<ul style="list-style-type: none"> • Easily distracted by sights and sounds. 	<ul style="list-style-type: none"> • Seat student in low traffic area of classroom. • Use carpeting. • Face desks away from windows and doors. • Designate a home base area to escape classroom stimulation for awhile. • Teach child when he or she can and cannot use computer; some teachers cover the computer to indicate it's not time to use it. • Seat student away from toys and books. • Help child to learn how to handle distractions over time.
<ul style="list-style-type: none"> • Sensitivity to touch. <p>Comment: In some cases, younger children with Autism still like to be touched. The parents will be able to help you understand their child's sensitivity in this regard.</p>	<ul style="list-style-type: none"> • Avoid touching student initially. • Teach tolerance to touch.
<ul style="list-style-type: none"> • Sensitivity to smells (wet shoes of classmate, hand lotion, musty locker, hamster cage, rubber cement). 	<ul style="list-style-type: none"> • Avoid using perfumes or heavy lotions. • Seat student near open door or open window in rooms with strong smells (art room). • Ask custodians to order and use unscented cleaning supplies.
<ul style="list-style-type: none"> • Sensitivity to sounds (air conditioner, shuffling of feet, scratching of pencils, certain tones of music). 	<ul style="list-style-type: none"> • Move student away from sounds. • Use soft voice when possible. • Have student use earplugs or headphones (when appropriate). • Install carpeting or carpet remnants. • Put material under desk legs. • Prepare student for sounds (before bell rings, fire drills). • Gradually teach tolerance to sounds.
<ul style="list-style-type: none"> • Sensitivity to light, particularly fluorescent lights. 	<ul style="list-style-type: none"> • Lower levels of light. • Turn off overhead lights. • Try different colors of light. • Have student use sunglasses or baseball cap. • Move student's seat away from reflections on wall. • Use bulbs that do not flicker.

The information above is adapted and reprinted with permission from, "Life Journey Through Autism: An Educator's Guide," published by the Organization for Autism Research, Arlington, Virginia (www.researchautism.org/uploads/OAREducatorsGuide.pdf). It is part of a six-step plan for educators to use in supporting students with Autism in their classrooms and fostering an inclusive school.

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Resources for Educators, Families, and Individuals with ASD

- **National Dissemination Center for Children with Disabilities (NICHCY) (www.nichcy.org; 800/695-0285 voice/tty).** Funded by the Office of Special Education Programs, U.S. Department of Education, and operated by the non-profit organization Academy for Educational Development, this clearinghouse has extensive information about research on Autism Spectrum Disorders (ASD), educating students with Autism, what Autism is, Spanish resources, ASD organizations, and commercial publishers.
- **Supporting Students with Autism Spectrum Disorders: The Role of the Paraprofessional** (2002). By T. Kluba et al. and published by the Institute on Community Integration, University of Minnesota. A curriculum module designed for training paraprofessionals working with students with ASD. Available in facilitator module and corresponding student module (student modules may be photocopied.) For ordering information call the Institute at 612/624-4512 or visit <http://ici.umn.edu/products/curricula.html>.
- **Assistive Technology for Children with Autism.** By Susan Stokes. A detailed article describing specific low, mid, and high tech strategies that can be used with children with Autism to support their skill development and educational goals. Published by the Wisconsin Department of Public Instruction and available online at www.cesa7.k12.wi.us/sped/autism/assist/asst10.htm.
- **Autism Spectrum Disorders From A to Z (<http://www.asdatoz.com>).** By Barbara Doyle and Emily Doyle Iland. A book and Web site offering practical tips for families and school personnel related to supporting students with ASD, from a parent and special educator perspective.
- **First Signs, Inc. (www.firstsigns.org).** First Signs educates parents, healthcare providers, early childhood educators, and other professionals with the goal of improving screening and referral practices and lowering the age at which young children are identified with Autism and other developmental disorders. The Web site offers a variety of practical resources.
- **Professional Development in Autism Center (<http://depts.washington.edu/pdacent>).** The Center, funded by the U.S. Department of Education, provides training and support for school districts, families, and communities to ensure that students with ASD have access to high quality, evidence-based educational services in their local school districts. The Web site has resources, workshops, services, courses, and a troubleshooting board.
- **Organization for Autism Research (www.researchautism.org).** OAR uses applied science to answer questions that parents, families, individuals with Autism, teachers, and caregivers confront daily. The Web site includes discussion forums, research, resources, a database of Autism organizations, and downloadable publications including *Life Journey Through Autism: An Educator's Guide*.
- **Skilled Dialogue: Strategies for Responding to Cultural Diversity in Early Childhood** (2003). By Isaura Barrera with Robert Corso and Dianne Macpherson, and published by Paul H. Brookes Publishing. This book teaches practitioners how to use Skilled Dialogue – a field-tested model for respectful, reciprocal, and responsive interaction that honors cultural beliefs and values – to improve their relationships with the children and families they serve and better address developmental and educational goals. Available at www.brookespublishing.com.
- **Developing Cross-Cultural Competence: Serving Families** (2003). By D.L. Rogers-Adkinson et al. In *Focus on Autism and Other Developmental Disabilities*, vol.18, #1, published by PRO-ED. The article presents research-based techniques and practical ideas to facilitate increased competence of teachers in working with families of children with disabilities for whom English is not the first language. Online at <http://www.ingentaconnect.com/content/proedcw/focus/2003/00000018/00000001/art00002>.
- **Aquamarine Blue 5: Personal Stories of College Students with Autism** (2002). By Dawn Prince-Hughes. Published by Ohio University Press. A book written by college students who have Asperger's Syndrome or high-functioning Autism, and who describe in their own words both the challenges they face and the gifts they can offer to enrich higher education.
- **Autism Society of America (www.autism-society.org).** ASA promotes education, awareness, and advocacy on critical issues for individuals with Autism. The Web site has information of use to individuals with ASD, family members, professionals, and advocates, including news, resources, events, and ASA chapters.
- **Autism Asperger Publishing Company (www.asperger.net; 877/277-8254).** A publisher specializing in practical books on ASD for parents, teachers, individuals with ASD, and others working with them. The Web site lists publications, and also includes the organization's newsletter featuring articles by parents, teachers, and individuals with ASD, as well as extensive links to other resources.
- **Future Horizons, Inc. (www.FutureHorizons-autism.com; 800/489-0727).** A publisher specializing in publications and conferences on ASD for families and professionals.

[Birkemose, continued from page 1]

work, taking a breather from the day, and searching for the teacher who can help me with something from their class. One could say that this is a far cry from the screaming child that was me 10 years ago.

I can only guess at why I am successful in transitioning to mainstream class. One reason most likely is the support from wonderful teachers and my mother who took their time, effort, and patience to help guide me to the right path. The biggest reason though, I believe, is my attitude. I have inherited from my mother an attitude that refuses to quit, and whenever it let me down my mother's refusal to quit brought me back. If one believes themselves to be a loser, then they are indeed a loser. The only way a person can overcome is by slugging through the muck. I do not like school. I cannot stand this strange society that obsesses over material goods and sexuality. I do not like many classes, and few teachers have ever made a good impression on me. Through it all, though, I have stuck it out. They say life is what you make it to be. That may be a cliché, but it is true.

Attitude is what allows me to achieve my goals. I do not have a lot of accomplishments that are memorable. But, one could be getting the highest grade possible on an Advanced Placement Exam for American History. Another is finally getting my license to drive after so many years (although I do not consider myself that great of a driver.) Overall, my life is a fairly quiet one. I do not have a lot of friends and I don't like people knowing a lot about me. Some people need to be social or they either like an old rose. I differ from the exact opposite.

Perhaps my life is not that social because of my interests. My principle ones are reading, writing, and drawing. They are not activities that can easily be done with friends. The only thing I like to do with more people is watching movies, but I do have a tendency to shoot opinions and suggestions to movies that I find to be sub par. My movie tastes are



unique to most people. I find the directors Stanley Kubrick and David Cronenberg to be the greatest the earth has ever seen, and believe their films – *A Clockwork Orange* and *Videodrome* – to be the shining example of what Hollywood should emulate. I don't mean, though, that hardcore violence should be so easily tolerated. People need to see that these directors only show it to make you hate it.

One of the things I would like teachers to think about in supporting children with Asperger's or any form of Autism is to never be condescending, and to remember that every child and every form of the disorder is unique. I recommend that teachers learn about it, but they will have to know their students individually. Now some may say I should know more about it, but I have never studied my disorder that closely. I am lucky enough to operate reasonably well in the mainstream world. Some are not so lucky. Teachers need to know that, and try their best to make their students achieve the same. It all depends on attitude.

Well, in a nutshell, love it or hate it this is me.

Ryan Birkemose attends high school and lives with his family in Lakeville, Minnesota.

[O'Neill, continued from page 27]

unique behavioral support interventions identified for such students, this may not be critical.

Summary

School-age students with ASD who exhibit challenging behavior may require a variety of behavioral supports to maximize participation in typical classroom and community settings. Perhaps the most critical issue is to focus on the needs of individual students, as opposed to assuming various support needs based on whether or not a child has an ASD label. It is hoped that this article provides some guidance to those school personnel and families providing such support to children and adolescents exhibiting challenging behavior in school and community settings.

*Pseudonym

References

- Horner, R.H., Carr, E.G., Strain, P.S., Todd, A.W., & Reed, H.K. (2002). Problem behavior interventions for young children with Autism: A research synthesis. *Journal of Autism and Developmental Disorders*, 32, 423-446.
- Iwata, B.A., Dorsey, M.F., Slifer, K.J., Bauman, K.E., & Richman, G.S. (1982). Toward a functional analysis of self-injury. *Analysis and Intervention in Developmental Disabilities*, 2, 3-20.
- Johnston, S., & O'Neill, R.E. (2001). Searching for effectiveness and efficiency in conducting functional assessments: A review and proposed process for teachers and other practitioners. *Focus on Autism and Developmental Disabilities*, 16, 205-214.
- Koegel, L.K., Koegel, R.L., & Dunlap, G. (Eds.) (1996). *Positive behavioral support: Including people with difficult behavior in the community*. Baltimore: Paul H. Brookes Publishing.
- National Institutes of Health (NIH) (1991). *Treatment of destructive behaviors in persons with developmental disabilities*. Washington, DC: National Institutes of Health.
- O'Neill, R.E., Horner, R.H., Albin, R.W., Sprague, J.R., Storey, K., & Newton, J.S. (1997). *Functional assessment and program development for challenging behavior: A practical handbook* (2nd ed.). Belmont, CA: Wadsworth.
- O'Neill, R.E., & Sweetland-Baker, M. (2001). An assessment of stimulus generalization and contingency effects in functional communication training. *Journal of Autism and Developmental Disorders*, 31, 235-240.
- Sugai, G., et al. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions*, 2, 131-143.

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[Stansberry, continued from page 13]

instruction, and role-playing in a variety of settings. When Chris began to display undesirable social behaviors, the school researched social interventions and utilized a story to promote social understanding and teach alternatives to undesirable behaviors.

In the behavioral area, Chris experiences a great deal of anxiety, which is common in ASD. When even small changes occur unexpectedly he becomes highly anxious and self-stimulates by flapping his hands. Because he has a lack of fear and does not understand danger, he sometimes puts himself into risky situations. The staff received training on methods and strategies specific to managing challenging behavior in ASD. The

These ASD competencies outline relevant knowledge and skills consistent with promising practices and research.

school psychologist performed a functional behavioral assessment for challenging behaviors that were disruptive in the classroom. Due to worries about Chris having a seizure, he would be removed from the classroom whenever he became agitated. The psychologist observed Chris in numerous settings, examining the function of Chris' behavior and the possible communicative intent. Collaboratively, Chris's team wrote a behavior intervention plan to teach him alternative skills through the use of positive behavior supports designed to prevent the development of interfering behaviors and decrease the need for reactive strategies. By utilizing these competencies, Chris' school was able to help him gain skills that increased his time in the regular classroom, and enabled him to engage more with peers.

Collaboration

The competencies in the area of *Collaboration in the Education of Learners with ASD* are the following (Minnesota Autism Project, 2006, p. 5):

- Knowledge of a range of educational and service options for students with ASD.
- Skill in providing strategies and training for parents, paraprofessionals, and other school staff to work more effectively with individuals with ASD.
- Skill to communicate with outside agencies (e.g., private OT, speech/language, sensory integration services; doctors, psychologists, and others) working with the individual with ASD.
- Skill to share current research and other resources regarding ASD with parents and school staff.

In Chris' situation, his collaborative team consisted of the school psychologist, therapists, regular and special education teachers, family, and outside agencies. Chris was the first child with a significant disability to be included in his neighborhood school. By utilizing these competencies, Chris' collaborative team was able to access the knowledge and assistance they needed to respect his right to be included, and to make his inclusion work through a range of educational and service options.

Conclusion

Chris had a successful year. Towards the end of the school year, his team began working with his next year's teacher to help Chris with the transition. Although originally apprehensive about his inclusion in the school, his teachers have found the experience to be rewarding. Over the year, they have become truly reflective practitioners who actively seek to strengthen their professional knowledge and skill with the support of the administration. They are knowledgeable and skilled in ASD and understand how to meet Chris' needs and learning style.

Most importantly, they have developed a positive relationship with Chris.

The nature of teaching requires continuous growth in order to serve today's diverse population of students. These ASD competencies outline relevant knowledge and skills consistent with promising practices and research. Administration can use these competencies to guide the selection of staff and organize professional development initiatives. In addition they can be used by individuals to guide their educational experiences and expertise. For further information on the ASD competencies visit the Minnesota Autism Project Web site at: www.ecsu.k12.mn.us/documents/teachercompetencies.pdf.

References

- Centers for Disease Control and Prevention (CDC). (2006). *How common are Autism Spectrum Disorders (ASD)?* Retrieved 11/18/06 from http://www.cdc.gov/ncbddd/autism/asd_common.htm.
- Council for Exceptional Children (CEC). (2000). *Common core knowledge and skills for beginning special education teachers.* Retrieved 11/18/06 from http://education.gsu.edu/scu-gsu/International_Standards/Council%20for%20Exceptional%20Children.htm.
- Minnesota Autism Project (2006). *Proposed competencies for special education teachers working with students with Autism Spectrum Disorders (ASD).* Retrieved 10/25/06 from www.ecsu.k12.mn.us/documents/teachercompetencies.pdf.

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Impact

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