

A SUMMARY OF CURRENT BEST PRACTICES FOR EDUCATING AUTISTIC CHILDREN

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A KEY CHARACTERISTIC OF AUTISTIC SPECTRUM DISORDERS (ASD) is their heterogeneity. Autistic children have an extensive range of functional ability, behavioral issues, family situations, individual needs and idiosyncratic interests, making generalizations about intervention and treatment all but impossible. In addition, autistic children may have co-occurring disorders such as mental retardation and language disorders, so that educational planning must be further individualized to treat a constellation of disabilities. Currently, education is the primary form of treatment for autism, including the education of parents and teachers. Research indicates that earliest possible intervention (generally, upon diagnosis) is ideal.

The preferred method for establishing evidence-based practices is the randomized controlled study, but in the case of autism such studies are particularly challenging. The unique characteristics and needs of autistic children put practical and ethical constraints on random assignment, and makes the results difficult to generalize to broader groups. For these reasons, qualitative and anecdotal case studies have been the norm in autism research.

To date, the research that exists on school-based interventions for ASDs has not identified any particular practices or approaches that work equally well for all children, that work better than other interventions, or that lead to improved outcomes beyond their specific target area. Interventions that have been shown to be effective have been based on broad practices tailored to the individual child, rather than a rigid set of specific treatment strategies or methods. Using meta-analysis to analyze a broad range of studies, several researchers have identified some common underlying characteristics of effective ASD interventions, and some general practices that support those interventions.

Iovannone, Dunlap, Huber and Kincaid reviewed a broad range of studies conducted between 1992 and 2002 and found six core elements of effective ASD interventions.

1. Individualized supports and services.

Because the needs of each autistic child are unique, schools must strive to find ways to match treatment strategies, services and supports to each child's individual and family characteristics. This includes incorporating the child's unique preferences, special interests, strengths and weaknesses, as well as the family's goals and characteristics, into a specialized instructional plan. The school also should tailor the child's environment, instructional materials and activities, intensity of instruction and opportunities for learning to encourage the highest possible level of engagement. One teaching method that has shown promise is [Pivotal Response Training](#).¹ PRT focuses on the acquisition of two behaviors, motivation and responsiveness to multiple cues, that are considered pivotal to success in learning other skills and positive behaviors. It also helps children generalize newly learned skills and behaviors, and increases their motivation to use them.

2. Systematic Instruction. According to Iovannone et al., "Systematic instruction involves carefully planning for instruction by identifying valid educational goals, carefully outlining instructional procedures for teaching, implementing the instructional procedures, evaluating the effectiveness of the teaching procedures, and adjusting instruction based on data." Systematic instruction is important for ensuring the generalization and maintenance of learned skills, and for ensuring high levels of engagement.

The methods and principles of "[applied behavioral analysis](#)"² have proven effective in systematic instruction. ABA is a systematic, objective approach to assessing, measuring and evaluating observable problem behavior, and

choosing appropriate interventions to modify that behavior. One example of an applied behavioral analysis approach is "[discrete trial training](#)."³ In discrete trial training, a series of lessons is taught repeatedly one-on-one using a defined sequence: an antecedent (an event that allows the child to predict what is coming next), a request for the child to perform an action, a response from the teacher, and a reward that is related to the action. Tangible rewards are replaced with intangible rewards as quickly as possible. Other applied behavioral analysis techniques include teaching self-management procedures and teaching in natural settings using cues provided by natural situations. These systematic techniques help autistic children learn and practice practical skills, and generalize those skills from one setting to another.

3. Comprehensible/structured learning environments. Each autistic child's need for predictability and structure in the classroom is unique, so again, the environment must be tailored to the needs of the specific child. In general, a comprehensible learning environment is one in which the child knows what is expected and what will happen next, and one that allows the child to generalize newly learned skills. Visual cues and other supports are often used to create structure, for example a visual schedule of activities, defined classroom areas, carefully planned choices, and help with transitions, including priming the child for upcoming activities.

4. Specific curriculum content. Curricula should address the child's specific communication and social deficits, and provide functional skills that will be useful in the child's broader life. Teaching should focus on skills that increase independence, that allow the child to control his or her environment, and that improve functional performance. If well matched to the child's needs, augmentative communication and assistive technologies can be useful tools. Peer teaching and inclusive, natural learning

environments (e.g., the classroom rather than the resource room) have been shown to facilitate the development of key social skills.

5. Functional approach to problem behavior.

While eliminating or reducing problem behavior is an important goal, research has shown that autistic children must be taught an alternative positive behavior that will meet their needs equally well. Also, educators must attempt to understand the purpose of the child's problem behavior, and to understand environmental and contextual factors that may be exacerbating it. "[Positive behavior support](#)"⁴ and "[functional behavior assessment](#),"⁵ are empirically supported methods for addressing problem behaviors. Both methods commonly are applied in many contexts beyond educating autistic children. Positive behavior support stresses the importance of

enhancing the child's environment and lifestyle to promote positive behaviors and reduce the need for negative behaviors. Functional Behavioral Assessment is a problem-solving technique that uses various methods to determine the functional purpose of a problem behavior, and to develop strategies for addressing that underlying problem.

6. Family involvement. While each family has unique characteristics that factor into the education of their autistic child, family support is a key component of successful intervention. To the extent possible, parents should be involved in setting goals, selecting instructional strategies, and implementing consistent strategies at home and in community settings. This increases structure and stability, and allows the child to generalize skills across settings.

Endnotes and Sources:

¹ <http://psy.ucsd.edu/autism/prttraining.html>

² <http://www.centerforautism.com/aba/whatisaba.asp>

³ www.usd.edu/cd/autism/topicpages/graphic/Discrete%20Trial%20Training.pdf

⁴ <http://www.asatonline.org/resources/procedures/positive.htm>

⁵ <http://www.autismnetwork.org/modules/assess/fba/index.html>

<http://psy.ucsd.edu/autism/research.html>

Committee on Educational Interventions for Children with Autism. National Research Council. (2001). *Educating Children with Autism*. Lord, Catherine and James P. McGee, Eds. National Academy Press: Washington, DC. Available online at http://www.nap.edu/catalog.php?record_id=10017#toc.

Iovannone, Rose, Glen Dunlap, Heather Huber and Don Kincaid. (Fall 2003). Effective educational practices for students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 18, 3.

