

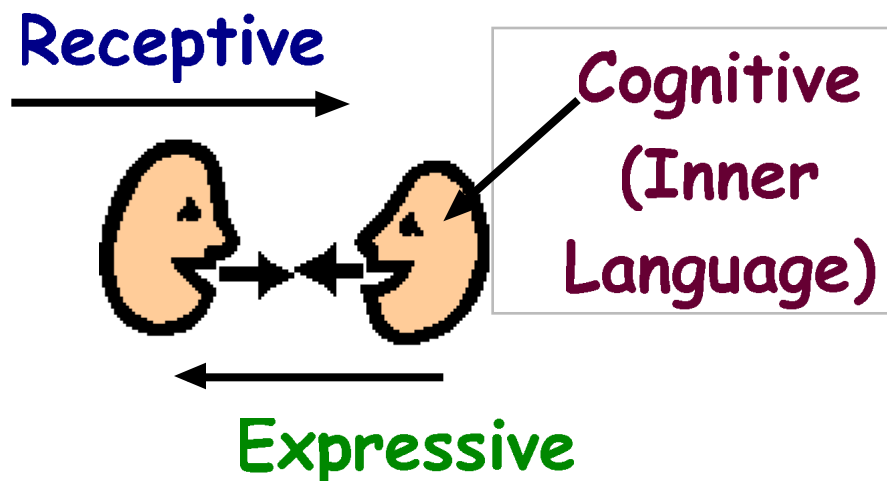
Multi-Modality Supports for Children on the Autism Spectrum

Linda J. Burkhart

Introduction

Students on the Autism spectrum often experience difficulty with auditory processing, joint attention, lack of initiation, limited understanding of social cues, selective attending, and the inability to take another person's point of view. By structuring the child's natural environment for multi-sensory input as well as output, we not only enhance receptive understanding, but can also provide the child with tools for cognitive processing, expressive language, reduced frustration and improved behavior. Augmentative communication strategies have proved useful with these children, however, we need to go beyond providing these children with limited systems that focus mainly on requests and following a schedule. Functional use of language involves a wide variety of communicative functions that must be part of child's receptive system before it will become part of his or her expressive system.

Communication



Communication

Communication consists of receptive and expressive skills as well as a means for an individual to process and organize his/her understanding of the world. Receptively, we can begin by assisting children on the autism spectrum with increasing joint attention and shared interaction through multi-modality play. Through the use of Aided Language Stimulation (Goossens', Crain, and Elder 1992) (Cafiero 1998) we can help make language more concrete and visible. Expressively, these children may be non-verbal or partially-verbal. They may use commercial jingles or story lines to communicate a single thought, not understanding individual

words as building blocks for language. By providing language through multi-sensory means, that concretely demonstrates how language is constructed from words, many of these children begin to see words as parts that may be combined to express a thought. The PECs system of picture exchange is a strong method for teaching initiation and social approach (Frost and Bondy 1994) and in combination with a comprehensive aided language stimulation program and other multi-modality supports can lead to a wide range of expressive skills.

In addition, many of these children lack an inner voice to "talk" to themselves. Multi-modality supports can enable a child to process and organize his or her own thoughts in a more concrete fashion and make sense of his/her experiences. Throughout all aspects of communication, children on the autistic spectrum can benefit from the richer source of information that is presented in a multi-sensory manner.

Behavior

Behavior can be most effectively understood when one looks for the communicative intent behind the behavior. Typically, children use a behavior to communicate a particular need. If one can determine the communicative intent and then provide a means to communicate it that is just as easy, and more effective than the behavior, then the child will probably use the new form of communication. (Mark Durand 1990) Visual schedules have been used successfully to help children transition to new activities and get a sense of the daily routine. This is a great start, especially for compliance, however, multi-modality supports can also be employed to help students talk about the schedule, express their feelings about the scheduled events and discuss specific tolerance factors for particular activities, thus averting some behavior problems.

Social Interaction

Concrete strategies to teach shared attention and turn taking can be take the form of simple picture cue cards to specially constructed software that provides the multi-modality cues for turn taking. Social Scripts and Social Stories (Gray 1994) may also be utilized to model and practice appropriate social skills.

Sensory Considerations

Children on the Autism Spectrum often process sensory information differently from typical children. They may experience certain auditory, visual, tactile and/or kinesthetic sensations as pleasurable, unpleasant or even painful. There are strategies available to help assess sensory differences. (Stokes, Wirkus-Pallaske, and Reed 2000) Understanding these differences can help us develop vocabulary and multi-modality means for children to communicate about sensory needs and sensory violations.

Cognition and Learning

Multi-sensory information can help make concepts more concrete and accessible for children who have difficulty with abstract thinking. Teaching these children to attend to and

utilize multiple cues has been shown to be a pivotal skill that improves the child's ability to function. (Burke 1991) Technology allows us to present information in an errorless, patient manner that enables the child to practice skills and reinforce understanding of concepts in a self-directed manner with enjoyment. Affect has also been shown to increase memory and learning. (Greenspan) Emergent literacy and emergent mathematical understanding may also be enhanced through multi-modality strategies.

Conclusion

The use of multi-modality supports for children on the Autism Spectrum constitute a powerful teaching strategy that impacts all areas of learning and effectively addresses the major difficulties that these children face.

Resources

- Beukelman, D., and Mirenda, P. (1992) Augmentative and Alternative Communication: Management of Severe communication Disorders in Children and Adults. Baltimore, MD -Order from: Paul H. Brookes Publishing Co.
- Burke, John C. (1991) "Some Developmental Implications of a Disturbance in Responding to Complex Environmental Stimuli" *American Journal on Mental Retardation*, Vol. 96, No. 1, July 1991.
- Burkhart, Linda. (1993) Total Augmentative Communication in the Early Childhood Classroom. Eldersburg, MD.
- Cafiero, Joanne. (1998) "Communication Power for Individuals with Autism" *Focus on Autism and Developmental Disabilities*, .
- Durand, V.M. (1990), Severe Behavior Problems: A Functional Communication Training Approach. NY: Guilford Press. NY
- Frost, L. & Bondy, A. (1994) The Picture Exchange Communication System Training Manual. Cherry Hill, N.J. PEC's Inc. Pyramid Educational Consultants, Inc.
- Gray, C. (2000) New Social Stories: Illustrated Edition, 2nd edition, Future Horizons
- Greenspan, M.D, Stanley. (1997) Infancy and Early Childhood - The Practice of Clinical Assessment and Intervention with Emotional and Developmental Challenges, International Universities Press, Inc., 3rd Printing Madison, WI)
- Goossens', Carol, Crain, Sharon, and Elder, Pam. (1992). Engineering the Classroom Environment for Interactive Symbolic Communication - An Emphasis on the Developmental Period, 18 Months to Five Years. SEAC Publications
- Musselwhite, Burkhart. Can We Chat? Co-Planned Sequenced Social Scripts (2001) Special Communications, Litchfield Park, AZ
- Stokes, S., Wirkus-Pallaske, M., Reed, P. (2000) Assistive Technology tools and Strategies Assessment Manual for Children with Autism Spectrum Disorder. Wisconsin Assistive Technology Initiative, Oshkosh, WI