Guide for Educating Students with Autism Spectrum Disorders (ASD)

Kansas State Department of Education
Special Education Services
June 2009

GUIDE FOR EDUCATING STUDENTS
WITH AUTISM SPECTRUM DISORDERS (ASD)

Table of Contents

Letter from the Director, Special Education Services iii

Introduction v

Acknowledgements vi

Chapter 1: Autism Spectrum Disorders (ASD) 1

Figure 1: Autism Spectrum Disorders in sequential order 1

Chapter 2: Identification and Assessment 11

Chapter 3: Education Program Design 17

Chapter 4: High Quality Programs 25

Chapter 5: Transitions 31

Chapter 6: Instructional Frameworks 37

Chapter 7: Interventions 43

Appendix A: Websites 53

Appendix B: Review of Assessments 67

Appendix C: Nonsymbolic Dictionary and Augmented Input Dictionary 91

Kansas state department of Education

Special Education Services
785-291-3097 or 1-800-203-9462
785-296-6715 (fax)
120 SE 10th Avenue • Topeka, KS 66612-1182 • 785-296-8583 (TTY) • www.ksde.org

June 12, 2009

Dear Colleagues,

In our continuing efforts to assist you in improving outcomes for exceptional students, the Special Education Services Team is pleased to introduce to you the *Guide for Educating Students with ASD*.

The purpose of this document is to provide families, educators, and service providers information about best practices in educating students with ASD and to improve educational outcomes for students with ASD. The guide includes information on identification and assessment, high quality program design and instruction, and effective transition of students with ASD.

This guide was made possible by the collaborative effort of many talented individuals who worked diligently over many months developing a practical resource to guide educational services for students with ASD.

Please call upon our Special Education Services Team if you need assistance or have any questions regarding this guide.

Sincerely,

Colleen Riley
Director

INTRODUCTION

The *Guide for Educating Students with Autism Spectrum Disorders (ASD)* [Kansas State Department of Education (KSDE, 2009)] was developed:

- in response to a request from the KSDE's Special Education Services (SES);
- for families, educators, and service providers to improve educational outcomes for students with ASD; and
- to provide research-based information regarding educational strategies for students with ASD.

Kansas has a long history of high quality programs for students who receive special education services. This guide is designed to assist families, educators, and service providers in delivering high quality education programs for students with ASD.

Although students with ASD share common characteristics, each student with ASD is impacted differently and this guide does not endorse any single theoretical or instructional approach. A discussion of the elements of high quality programs, education program design, instructional frameworks, and evidence-based interventions for students with ASD is included in this guide as well as information about screening, assessment, and transition. For many children, some form of special education services is required in order for the student with ASD to receive an appropriate education. For information regarding the legal requirements applicable to special education services for students with ASD, please refer to the following document:

Kansas State Department of Education (2008). *Special education process handbook*. Topeka: Author.

The terms Autism Spectrum Disorders (ASD) and Pervasive Developmental Disorders (PDD) often are used interchangeably in the field. The term PDD is widely used by professionals when they refer to students with autism and related disorders; however, there are disagreements and confusion among professionals about the PDD category. According to the American Psychiatric Association (1994), PDD is not a specific diagnosis, but an overall term under which the specific disorders are defined. In this guide, the term Autism Spectrum Disorders (ASD) is used, but can be considered synonymous to the term Pervasive Developmental Disorders (PDD). Further, in this guide the phrase "student with autism" is not used to specifically refer to a student with autistic disorder; rather, the phrase is used synonymously with "student with ASD" as is common practice in the field.

This guide is the work of a panel of more than thirty experts in the field of autism who are familiar with the variety of student behavioral characteristics across the spectrum. The panel relied heavily on findings from the National Research Council's *Educating Children with Autism* (2001), as well as guidelines developed by the California Department of Developmental Services (2002), Connecticut Department of Education (2005), North Dakota Department of Public Instruction (2003), and the *Autism Program Quality Indicators* (Crimmins, Theurer-Kaufman, & Everett, 2001). It is the goal of this panel that the ASD guidelines will be used to help improve the provision of services for students with autism.

ACKNOWLEDGEMENTS

The Kansas Department of Education is grateful to the following people who spent valuable time developing the *Guide for Educating Students with Autism Spectrum Disorders (ASD)* (KSDE, 2009).

Kansas Instructional Support Network (KISN)

Jane Goetz, MS Ed
Autism Coordinator

Lee Stickle, MS Ed
Co-Director

Sarah Hoffmeier, MSW
Family Service & Training Coordinator

Mary Woodworth, Ed S
Transition & Training Coordinator

KISN Regional Autism Consultants

Lori Chambers, MS, CCC-SLP
Kim Meyer, Ed S
Helen Miller, MS, CCC-SLP
Dixie Teeter, MS, CCC-SLP
Katie Wheeler, MS, CCC-SLP

KISN Institutes of Higher Education Consortium Members

Marjorie Bock, EdD
Amy Finch, PhD, CCC-SLP
Dorothy Fulton, EdD
Ann George, EdD
Peter Griggs, M Ed
Deb Griswold, PhD
Brenda Smith Myles, PhD
Phoebe Rinkel, MS
Trisha Self, PhD, CCC-SLP
Richard Simpson, EdD, MS

KSDE Special Education Services Team Members

Wendy Blaauw, MS
Elena Lincoln, JD
Deborah Matthews, MS Ed

Additional Contributors

Susan Bashinski, EdD
Associate Professor, Special Education
Department of Curriculum & Instruction
Eastern Carolina University

Anne Brewer, Ed S
School Psychologist
ANW Special Education Cooperative

Katie Cook, PhD
Early Childhood Autism Specialist
Harmony Early Childhood Center; Olathe KS

Sonja de Boer, PhD, BCBA
Owner/Autism Consultant
de Boer Consulting & Training, LLC

Julie Donnelly, PhD
Adjunct Professor
University of Missouri

Winnie Dunn, PhD, OTR, FAOTA
Professor & Chairperson
Department of Occupational Therapy Education
University of Kansas Medical Center

Paul LaCava, PhD
Project Coordinator/Lecturer
University of Kansas

Debbie Mai, MS, CCC-SLP
Vice President of Programs & Services
Rainbows United, Incorporated

Peggy Miksch, MS
Infant Technical Assistance Specialist
Kansas Inservice Training System

Nancy Miller, M Ed, OTR/L
Student Services Consultant-Early Childhood
Blue Valley School District

Louann Rinner, MS, OTR/L
Center for Child Development & Health
University of Kansas Medical Center

Laurie Sperry, PhD
Director
Professional Development in Autism Center
University of Colorado at Denver & Health Sciences Center

Carol Stewart, M Ed
IDMSS Grant, KSTARS

References

California Department of Developmental Services. (2002) *Autistic Spectrum Disorders: Best Practice guidelines for screening, diagnosis and assessment* [Electronic version]. Retrieved December 13, 2006, from http://www.ddhealthinfo.org/documents/ASD_Best_Practice.pdf

Connecticut State Department of Education. (2005). *Guidelines for Identification and Education of Children and Youth with Autism* [Electronic version]. Retrieved December 13, 2006, from http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Guidelines_Autism.pdf

Crimmins, D. B., Durand, V. M., Theurer-Kaufman, K., & Everett, J. (2001). *Autism program quality indicators: A self-review and quality improvement guide for schools and programs serving students with autism spectrum disorders* [Electronic version]. Retrieved December 13, 2006, from http://www.vesid.nysed.gov/specialed/autism/apqi.htm

Kansas State Department of Education. (2009). *Guide for Educating Students with Autism Spectrum Disorders(ASD).* Topeka: Author.

Kansas State Department of Education. *(*2008). S*pecial education process handbook.* Topeka: Author.

National Research Council. (2001). *Educating children with autism.* Washington, DC: National Academy Press.

North Dakota Department of Public Instruction. (2003). *Guidelines: Identifying, serving, and educating children and youth with autism* [Electronic version]. Retrieved December 13, 2006, from http://www.dpi.state.nd.us/speced/guide/autism.pdf

CHAPTER ONE

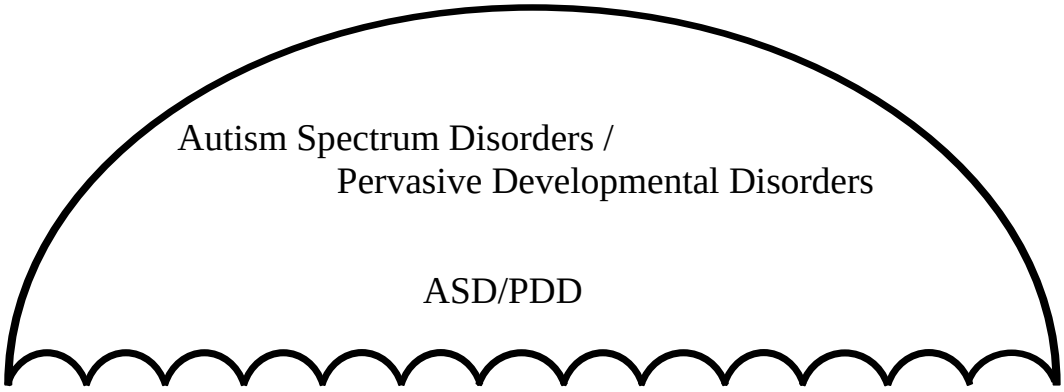
AUTISM SPECTRUM DISORDERS (ASD)

Autism Spectrum Disorders (ASD) are complex conditions that typically appear during the first three years of a child's life. ASD are the result of a neurological disorder that affects the functioning of the brain, impacting social interactions and communication skills development. Students with ASD typically have difficulties with verbal and nonverbal communication, social interactions, and leisure or play activities. Autism Spectrum Disorders (ASD) affect each student's cognitive processing, sensory modalities, social interactions, and communication differently and with varying degrees of severity (Autism Society of America, 2007).

Diagnostic labels are used to indicate common personality traits or behavior among individuals. The feature of ASD that differentiates it from other syndromes, categories, or disorders is the limited or lack of ability to socially interact with others (Frith, 1989). The diagnosis of autism indicates limited or absent communication, social skills, and social interactive activities. There are no medical tests that can be performed to indicate the presence for ASD or any of the related disorders under the category of PDD. The diagnosis is based upon the presence or absence of specific behaviors.

Five specific disorders fall under this spectrum of neurological disorders, all characterized by "severe and pervasive impairment in several areas of development (APA, 1994)." These five disorders are Autistic Disorder, Asperger Disorder, Childhood Disintegrative Disorder, Rett Disorder, and PDD-Not Otherwise Specified (PDD-NOS). Each has specific diagnostic criteria defined in the *Diagnostic and Statistical Manual of Mental Disorders-IV[DSM-IV)*(APA, 1994). Figure 1 illustrates the spectrum of ASD/PDD with the categories of neurological disorders.

Figure 1. Autism spectrum disorders in sequential order.



Autistic Disorder

Asperger Disorder

Childhood Disintegrative Disorder

Retts Disorder

PDD-NOS (Pervasive Developmental Disorder, Not Otherwise Specified)

Characteristics of Students with ASD

Different terms are used to categorize students who have common characteristics within ASD such as autistic-like, autistic tendencies, and/or autism spectrum. What is most important to know about students who have ASD is that they can achieve academically, have rich social interactions with communicative partners, and attain careers (postsecondary and otherwise). However, they have unique needs that require them to gain input from and give output of information based on their individual learning styles.

Students with ASD also may exhibit some of the following traits:

- resistance to change;
- difficulty in expressing needs, use gestures instead of using words;
- use of repetitive words or phrases in place of typical responsive language;
- display of emotions that do not relate to the event (e.g., laughing when someone is sad or crying for no apparent reason);
- preference for isolation;
- tantrums;
- difficulty participating in social interactions with others;
- unwillingness to accept affection from others;
- little or no eye contact with others;
- unresponsiveness to traditional or innovative instructional strategies;
- sustained play with objects that are not typical of peers without disabilities (e.g., spinning objects, twirling string, etc.);
- obsessive attachment to objects;
- over-sensitivity or under-sensitivity to pain;
- no fear of danger;
- noticeable physical over-activity or under-activity;
- uneven development of gross and fine motor skills;
- difficulty integrating environmental sensory input; and
- lack of response to verbal cues; acts as if deaf, although hearing tests normal across all frequencies (Autism Society of America, 2007).

Possible Causes of ASD and Other Disorders across the Spectrum

Researchers generally accept that multiple forms of ASD are caused by either structural anomalies or disturbances in sections the brain. Literature on brain scan research has shown that the structures of the brain for students with autism are different than students who are not autistic. (Baron-Cohen, Ring, Wheelwright, Bullmore, Brammer, Simmons, & Williams, 1999; Bauman & Kemper, 1994; Belmonte, Mazziotta, Minshew, Evans, Courchesne, & Dager, in press; Courchesne, Karns, Davis, Ziccardi, Carper, Tigue, 2001; Gillberg & de Souza, 2002; Herbert, 2005; Rojas, Peterson, Winterrowd, Reite, Rogers, & Tregellas, 2006). Researchers are investigating a number of theoretical causes of autism, including the link between heredity, genetics, environmental, and medical problems. In many families, there appears to be a pattern of ASD or related disabilities, further supporting a genetic basis for the disorder (Bailey, Le Couteur, Gottesman, Bolton, Simonoff, & Yuzda, 1995; Bailey, Palferman, Heavey, & LeCouteue, 1998; Cederlund & Gillberg, 2004; Hallmayer, Glasson, Bower, Petterson, Croen, Grether, & Risch, 2002; Turner, Barnby, & Bailey, 2000; Volkmar, Klin, & Pauls, 1998; Zafeiriou, Ververi, & Vargiami, 2007) While no single gene has been identified as causing ASD, researchers are searching for irregular segments of genetic code that students with autism may have inherited (Rutter, 2005). Additionally, it is believed some children are born with a susceptibility to ASD; however, researchers have not yet identified a single "trigger" that causes ASD (Autism Society of America, 2007).

Researchers are investigating the possibility that under certain conditions, a cluster of unstable genes may interfere with brain development resulting in autism. Other researchers are

investigating problems during pregnancy or delivery, as well as environmental factors. Environmental factors that are being researched include viral infections, metabolic imbalances, and exposure to environmental chemicals as possible causes (Batshaw & Tuchman, 2002; Beversdorf, 2005; Fombonne, 2003). For example, it has been suggested that harmful substances ingested during pregnancy are associated with an increased risk of autism, and the Agency for Toxic Substances and Disease Registry (ATSDR, 2002) prepared a literature review of hazardous chemical exposures and autism. However, the results from the literature revealed little evidence of an association between chemical exposure and autism. The question of a relationship between vaccines and autism continues to be debated. The Institute of Medicine (2001) conducted a study on the causal affects of vaccines and the relationship with autism. The results of their study revealed, "…evidence favors rejection of a causal relationship....between Measles, Mumps, and Rubella (MMR) vaccines and ASD (p. 46)." It was acknowledged; however, that, "they could not exclude (The Institute of Medicine, 2001, p.46)" the possibility that the MMR vaccine could contribute to ASD in a small number of children.

It is clear that students with ASD are born with the disorder or born with the potential to develop it (Autism Society of America, 2007). ASD is not caused by bad parenting. It is not a mental illness. Furthermore, there is no known psychological factor in the student's development that causes autism.

Prevalence of Students with ASD

Autism Spectrum Disorders (ASD) are defined by individuals who demonstrate certain behavioral characteristics that vary in degrees of severity. For example, two children, both with the same diagnosis, can demonstrate behaviors that are completely different from one another and have varying abilities and educational needs. ASD affect an estimated one in 150 births [Centers for Disease Control Prevention (CDC, 2007)]. Roughly translated, this means as many as 1.5 million Americans today are believed to have some form of ASD. Overall, the incidence of ASD is four times more prevalent in boys than in girls. Also, ASD tend to occur more frequently than expected among individuals who have certain medical conditions, including Fragile X Syndrome, Tuberous Sclerosis, Congenital Rubella Syndrome, and untreated Phenylketonuria (PKU). Based on national trend data, ASD are growing at a rate of 10-17 percent per year (IDEA, 2008). At this rate, it is predicted that the prevalence of ASD could reach four million Americans by the next decade (Autism Society of America, 2007).

Misconceptions of Students with ASD

There are many misconceptions about students with ASD. One misconception is that students with ASD do not make eye contact. Although a student with ASD may make contact less often or differently than a student without disabilities, students with ASD do make eye contact. Additionally, some understand students with ASD to be unable to develop typical expressive language, yet many students with ASD can develop solid functional language skills as well as other types of expressive symbolic communication skills through sign language, pictures, or an augmented communication device with picture symbols and voice output. Most importantly it is a misconception to believe that students will outgrow ASD. However, there is a small amount of literature that suggests promising results of ASD characteristics lessening as the student develops and receives instruction (Autism Society of America, 2007).

Autistic Disorder

According to the APA (1994), "the central features of Autistic Disorder are the presence of markedly abnormal or impaired development in social interaction and communication, and a markedly restricted repertoire of activity and interest. The manifestations of this disorder vary greatly depending on the developmental level and chronological age of the individual. Autistic disorder is sometimes referred to as early infantile autism, childhood autism, or Kanner Autism." (p. 66)

Diagnostic Criteria for 299.00 Autistic Disorder. Based on the standards described in the *DSM, IV-TR* (APA, 1994), the diagnostic criteria used by qualified professionals to identify the first of related disorders under the ASD/PDD spectrum, Autistic Disorder, as:

A. A total of six (or more) items from each of the three categories, with at least two from (1), and one each from (2) and (3):
   (1) Qualitative impairment in social interaction, as manifested by at least two of the following:
      (a) Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
      (b)Failure to develop peer relationships appropriate to developmental level
      (c)A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
      (d) Lack of social or emotional reciprocity
   (2) Qualitative impairments in communication as manifested by at least one of the following:
      (a)Delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gestures or mime)
      (b)In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
      (c)Stereotyped and repetitive use of language or idiosyncratic language
      (d)Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
   (3) Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following
      (a)Encompassing preoccupation with one or more stereotyped patterns of interest that is abnormal either in intensity or focus
      (b)Apparently inflexible adherence to specific, nonfunctional routines or rituals
      (c)Stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
      (d)Persistent preoccupation with parts of object

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years:
   (1) Social Interaction
   (2) Language as used in social communication
   (3) Symbolic or imaginative play

C. The disturbance is not better accounted for by Rett Disorder or Childhood Disintegrative Disorder. (pp. 70-71)

Asperger Disorder

Asperger Disorder was first identified in the 1940's by a Viennese pediatrician, Dr. Hans Asperger, who observed autistic-like behaviors and inadequate social communicative interaction skills in boys who had normal intelligence and had experienced the typical language developmental milestones. Many professionals thought Asperger Disorder was simply a mild form of autism and used the term high-functioning autism to describe the students who behaved in such a manner. Frith (1991) describes students with Asperger Disorder as, "…having a dash of autism (p.32)." The APA (1994) identified Asperger Disorder as a separate disorder from Autistic Disorder, although currently, there are many professionals who consider Asperger Disorder a less severe form of Autistic Disorder. Asperger Disorder is distinguished from Autistic Disorder by the severity of the symptoms and the

absence of language delays. Students with Asperger Disorder may be mildly affected and often have good language and cognitive skills. For a person unfamiliar with a student with Asperger Disorder, the student may seem like a student without any disability (ASA, 2007).

Characteristics of Students with Asperger Disorder. Unlike students with autistic disorder who are frequently seen as uninterested in others, students who have Asperger Disorder usually want to fit in socially with their peers and have communicative interactions with others. However, students with Asperger Disorder may need instruction on appropriate social skills and communicative interactions with their peers without disabilities because they may not understand conventional social rules or may show a lack of empathy. Another social characteristic that students with Asperger Disorder typically demonstrate is limited eye contact. They seem to be unengaged in a conversation, and usually, do not understand the use of forms of expressive communication (e.g., gestures) (ASA, 2007).

Diagnostic Criteria for 299.80 Asperger Disorder. Based on the standards described in the *DSM, IV-TR* (APA, 1994), the diagnostic criteria used by qualified professionals to identify the second of related disorders under the ASD/PDD spectrum, Asperger Disorder, as:

A. Qualitative impairment in social interactions, as manifested by at least two of the following:
   (1) Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
   (2) Failure to develop peer relationships appropriate to developmental level
   (3) A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest to other people)
   (4) Lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
   (1) Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
   (2) Apparently inflexible adherence to specific, non-functional routines or rituals
   (3) Stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
   (4) Persistent preoccupation with parts of objects

C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.

D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3 years).

E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood.

F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia. (p. 77)

Differences between Students with Asperger Disorder and Students with Autistic Disorder. Although students with other disorders on the spectrum, such as Autistic Disorder, often demonstrate speech or language delays, students with Asperger Disorder generally do not demonstrate such delays in language development. Despite normal language development, however, students with Asperger Disorder may demonstrate differences in fluency and articulation patterns, such as speech patterns that are irregular in pacing or timing; inflections that are rhythmic; or the pitch of their voices may be too loud or too high. Students with Asperger Disorder also may not understand the subtleties of language, such as irony and humor, or they may not understand the give and take nature of a conversation. Another key distinction between Asperger Disorder and Autistic Disorder is cognitive ability. While some students with Autistic Disorder may experience cognitive disabilities, many students with Asperger Disorder have average to above average intelligence (ASA, 2007).

Childhood Disintegrative Disorder

The central feature of Childhood Disintegrative Disorder is a marked regression in multiple areas of functioning of a normally developing child after the age of two years. After the child reaches two years old, he or she reportedly has a clinically significant loss of previously acquired skills in at least two of the following areas (a) expressive or receptive language; (b) social skills or adaptive behavior; (c) bowel or bladder control; (d) play, or (e) motor skills. Individuals with this disorder display needs for social and communicative skill development.

Characteristics of Childhood Disintegrative Disorder. The characteristics that are generally observed in students who have Autistic Disorder also are observed in students who have Childhood Disintegrative Disorder—qualitative impairment in social interaction and communication and repetitive and stereotypic behaviors, interests, and activities (ASA, 2007). The APA (1994) further details the diagnostic criteria for students identified with Childhood Disintegrative Disorder.

Diagnostic Criteria for 299.10 Childhood Disintegrative Disorder. Based on the standards described in the *DSM, IV-TR* (APA, 1994), the diagnostic criteria used by qualified professionals to identify the third of related disorders under the ASD/PDD spectrum, Childhood Disintegrative Disorder, as:

A. Apparently normal development for at least the first two years after birth as manifested by the presence of age-appropriate verbal and nonverbal communication, social relationships, play, and adaptive behavior.

B. Clinically significant loss of previously acquired skills (before age 10 years) in at least two of the following areas:
   (1) Expressive or receptive language
   (2) Social skills or adaptive behavior
   (3) Bowel or bladder control
   (4) Play
   (5) Motor skills

C. Abnormalities of functioning in at least two of the following areas:
   (1) Qualitative impairment in social interaction (e.g., impairment in nonverbal behaviors, failure to develop peer relationships, lack of social or emotional reciprocity)
   (2) Qualitative impairments in communication (e.g., delay or lack of spoken language, inability to initiate or sustain a conversation, stereotyped and repetitive use of language, lack of varied make-believe play)
   (3) Restricted, repetitive, and stereotyped patterns of behavior, interests, and activities, including motor stereotypes and mannerisms

D. The disturbance is not better accounted for by another specific Pervasive Developmental Disorder or by Schizophrenia. (p. 74-75)

Retts Disorder

According to APA (1994), the essential feature of Retts Disorder is the development of multiple specific deficits following a period of normal functioning after birth. There is a loss of previously acquired purposeful hand skills before subsequent development of characteristic hand movement resembling hand wringing or hand washing. Interest in the social environment diminishes in the first few years after the onset of the disorder. There is also significant impairment in expressive and receptive language development with severe psychomotor retardation.

Diagnostic Criteria for 299.80 Rett Disorder. The *DSM, IV-TR* (APA, 1994) describes in detail the diagnostic criteria for Retts Disorder as:

A. All of the following:
   (1) Apparently normal prenatal and prenatal development
   (2) Apparently normal psychomotor development through the first five months after birth
   (3) Normal head circumference at birth

B. Onset of all of the following after the period of normal development:
   (1) Deceleration of head growth between ages 5 and 48 months
   (2) Loss of previously acquired purposeful hand skills between ages 5 and 30 months with the subsequent development of stereotyped hand movements (e.g., hand-wringing or hand washing)
   (3) Loss of social engagement early in the course (although often social interaction develops later)
   (4) Appearance of poorly coordinated gait or trunk movements
   (5) Severely impaired expressive and receptive language development with severe psychomotor retardation. (p. 72-73)

Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS)

The APA (1994) also describes the PDD-NOS criteria, noting that this category applies when there is a severe and pervasive impairment in the development of reciprocal social interaction or verbal and nonverbal communication skills or when stereotyped behavior, interests, and activities are present, yet the criteria for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder are not met. This category includes "atypical Autism"-- presentations that do not meet the criteria for Autistic Disorder because of late age of onset, atypical symptomatology, or sub threshold symptomatology, or all of these. (pp. 77-78)

References

American Psychiatric Association (APA). (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Autism Society of America. (2007). *Pervasive developmental disorders (PDD).* Retrieved January 30, 2007, from http://www.autism-society.org/site/PageServer?pagename=about_whatis_PDD.

Bailey, A., Palferman, S., Heavey, L., & LeCouteur, A. (1998). Autism: The phenotype in relatives. *Journal of Autism and Developmental Disorders, 28*, 369-392.

Bailey, A., Le Couteur, A., Gottesman, I., Bolton, P., Simonoff, E., & Yuzda, F. (1995). Autism as a strongly genetic disorder: Evidence from a British twin study. *Psychological Medicine, 25*, 63-77.

Baron-Cohen, S., Ring, H. A., Wheelwright, S., Bullmore, E. T., Brammer, M. J., Simmons, A., & Williams, S. (1999). Social intelligence in the normal autistic brain: an FMRI study. *European Journal of Neuroscience, 11*, 1891-1898,

Batshaw, M. L., & Tucman, M. (2002). PKU and other inborn errors of metabolism. In M. L. Batshaw (Ed.), *Children with disabilities* (5th ed.) (pp. 333-345). Baltimore, MD: Paul H. Brookes..

Bauman, M. L., & Kemper, T. L. (1994). Neuroanatomic observations of the brain in autism. In M. L. Bauman & T. L. Kemper (Eds.), *The neurobiology of autism* (pp. 119-145). Baltimore, MD: Johns Hopkins University Press.

Belmonte, M., Mazziotta, J., Minshew, N., Evans, A., Courchesne, E., & Dager, S. (in press). Offering to share: How to put heads together in autism neuroimaging. *Journal of Autism and Developmental Disorders, need volume numberin italics*(series number in non italics), page numbers without pp. or p. ending with a period.

Bevensdorf, D., Manning, S., Hillier, A., Anderson, S., Nordgren, R., & Walters, S. (2005). Timing of prenatal stressors and autism. *Journal of Autism and Developmental Disorders, 35*(4), 471-478.

Cederlund, M., & Gillberg, C. (2004). One hundred males with Asperger syndrome: A clinical study of background and associated factors. *Developmental Medicine and Child Neurology, 46*, 652-661.

Centers for Disease Control. (2007). *Frequently asked questions – prevalence.* Retrieved January 30, 2007, from http://www.cdc.gov/ncbddd/autism/faq_prevalence.htm.

Courchesne, E., Karns, C., Davis, H., Ziccardi, R., Carper, R., & Tigue, Z. (2001). Unusual brain growth patterns in early life in patients with autistic disorder: An MRI study. *Neurology, 57*, 245-254.

Fombonne, E. (2003). Epidemiological surveys of autism and other pervasive developmental disorders: An update. *Journal of Autism and Developmental Disorders, 33*, 365-382.

Frith, U. (1989). *Autism. Explaining the enigma.* Oxford,: Blackwell.

Frith, U. (Ed.).(1991). *Autism and asperger syndrome*. Cambridge, UK: Cambridge University Press.

Gillberg, S., & de Souza, L. (2002). Head circumference in autism, Asperger syndrome, and ADHD: A comparative study. *Developmental Medicine and Child Neurology, 44*, 296-300.

Hallmayer, J., Glasson, E., Bower, C., Petterson, B., Croen, L., Grether, J., & Risch, N. (2002). On the twin risk in autism. *American Journal of Human Genetics, 71*(4), 941-946.

Herbert, M. (2005). Large brains in autism: The challenge of pervasive abnormality. *Neuroscientist, 11*, 417-440.

Individuals with Disabilities Education Act (IDEA) Data. (2008). *Data notes for IDEA, part b.* Retrieved September 30, 2008, from https://www.ideadata.org/docs/bdatanotes2006.pdf.

Rojas, D., Peterson, E., Winterrowd, E., Reite, M., Rogers, S., & Tregellas, J., (2006). Regional gray matter volumetric changes in autism associated with social and repetitive behavior symptoms. *BMC Psychiatry, 6*, 56.

RutterK., M. (2005). Genetic influences and autism. In F. R. Volkmar, R. Paul, A. Klin, & D. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd ed.) (p. 425-452). New York: Wiley.

The Agency for Toxic Substances and Disease Registry. (2002). *Public health assessment.* Retrieved December 13, 2007, from http://www.atsdr.cdc.gov/HAC/pha/brick/bti_p1.html

The Instutitute of Medicine. (2001). *Immunization safety review.* Retrieved January 30, 2008, from http://books.nap.edu/openbook.php?record_id=10101&page=46

Turner, M., Barnby, G., & Bailey, A. (2000). Genetic clues to the biological basis of autism. *Molecular Medicine Today, 6*, 238-244.

Volkmar, F., Klin, A., & Pauls, D. (1998). Nosological and genetic aspects of Asperger syndrome. *Journal of Autism and Developmental Disorders, 28*, 457-463.

Zafeiriou, D., Ververi, A., & Vargiami, E. (2007). Childhood autism and associated comorbidities. *Brain & Development, 29*(5), 257-272.

CHAPTER TWO

IDENTIFICATION AND ASSESSMENT

Children with Autism Spectrum Disorders (ASD) present a unique challenge for educators since multiple evaluation instruments need to be administered in order to identify and assess a student with ASD. Autism Spectrum Disorders may be determined at any time from infancy to toddlerhood, in the early elementary years, and as late as adolescence or adulthood. The spectrum of disorders associated with ASD typically affect essential human behaviors, such as social relationships, communicative interactions, and behavioral concerns (National Research Council, 2001). An abundance of the literature describes the importance of an early, focused, and ongoing program of intervention. Early intervention will assist in alleviation of symptoms, as well as potentially increase long term successful development of the student (Dawson & Osterling, 1997).

Clinical Diagnoses and Educational Identification

Frequently, family members find they must navigate through the health care system and the educational system in obtaining evaluations and care for their children. Navigating through these systems may be confusing since each system has its own set of classification guidelines for diagnosing or identifying students with autism. Child psychologists, psychiatrists, developmental pediatricians, and other clinicians within the medical field usually make a clinical diagnosis of autism based on the standards described in the *DSM, IV-TR* (APA, 1994). The diagnostic criteria used for these clinical diagnoses were provided in greater detail in Chapter One of this guide. Criteria used for the purposes of eligibility for medical, mental health, or social services are not the same as those criteria used for purposes of eligibility for special education services; therefore, a clinical diagnosis of an ASD is not required for nor determinative of eligibility for special education services.

Within the school system, qualified educators make a determination of eligibility for special education services based on the categorical disability definitions found in federal and state special education statutes and regulations. Special education eligibility is based on qualifying as a "child with a disability" which includes a two-part analysis: first, meeting the categorical definition of a having a disability and second, demonstrating a need for special education and related services as a result of that disability (K.A.R. 91-40-1(k)(w); 34 C.F.R. 300.8). If the student's medical records indicate a clinical diagnosis of an ASD, the educational team should consider those findings in making their eligibility decision.

Eligibility for special education services for students with ASD is typically considered under the category of "autism." This category is not specific to any one particular autism spectrum disorder, so students with any autism spectrum disorder, including Asperger's or PDD-NOS, may meet the categorical definition of autism. However, even if a student with ASD does not meet the criteria for the autism disability category, that student may still meet the definition of one of the other disability categories, such as other health impairment (*See Letter to Coe* (OSEP, 1999) and *Letter to Williams* (OSEP, 2000)) or developmental delay (K.A.R. 91-40-1(k)(2), K.A.R. 91-40-10(i)). Education agencies should carefully consider student eligibility categories and make eligibility decisions on an individualized basis. "Autism" is defined as follows:

> (1)(i) **Autism** means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (b)(4) of this section.

(ii) A child who manifests the characteristics of "Autism" after age 3 could be diagnosed as having "Autism" if the criteria in the preceding paragraph are met (34 C.F.R. 300.8(c)).

Parent and Professional Collaboration

Family members are an integral part of the screening and evaluation process. Their insight into the child's development is important. Since family members are valued members of a collaborative educational team, they have an active and shared voice in the evaluation, educational services, and evaluation of instructional strategies (Gallagher, 1992). When educators observe possible indicators of ASD, they should be prepared to share their concerns with family members. Educators should offer resources, provide information about referrals, and help family members interested in seeking information about a medical diagnosis.

When family members of children become aware that their child is not meeting developmental milestones, they may consider the following signals in determining whether their concerns warrant a developmental screening of their child for ASD:

- lack of imaginary or developmentally appropriate play (example: lining up the dolls rather than pretending to feed them)
- lack of interest in other children,
- use the adult as a tool to obtain items (e.g., pulls mother by the hand to the refrigerator to get juice carton), but otherwise shows little interest in adults,
- no response when the child's name is called,
- no smiles or other joyful expressions by six months or after,
- no back-and-forth sharing of sounds, smiles, or other facial expressions by nine months,
- no babbling by 12 months,
- no back-and-forth gestures (e.g., pointing, showing, reaching, or waving) by 12 months,
- no two-word meaningful phrases (without imitating or repeating) by 24 months,
- any loss of speech, babbling, or social skills at any age, and
- no expressive word production by 16 months (First Signs, Inc., 2001).

Once in school, students with ASD typically have some difficulty adjusting to the demands of the school environment. Family members of school age children frequently report concerns over their child's lack of friendships, difficulties with daily living routines, and problematic behavior (Koegel, Schreibman, Loos, Dirlich-Wilhelm, Dunlap, Robbins, & Plienis, 1992). The behavioral characteristics of school-age students with ASD include, but are not limited to, the following:

- difficulty understanding and using language;
- difficulty working in small groups;
- need for daily routines;
- difficulty staying focused and following directions;
- unusual reactions to sensory stimuli;
- immature or challenging social behaviors;
- lack of friendships; and/or difficulty initiating social interactions (Doyle & Iland, 2004)

When a student is suspected of having ASD, family members are encouraged to share concerns with their child's primary care physician. A thorough physical examination usually is indicated to rule out any medical basis for (a) delays in functioning, (b) changes in behavior, or (c) presence of undiagnosed medical conditions of the student (e.g., Fragile X, hearing impairment, or seizure disorder). Often, blood tests are completed to determine lead levels and thyroid functioning, since abnormalities in these areas may lead to behaviors similar to those associated with ASD. Since research indicates that genetics may play a role in ASD, medical centers routinely request that genetic testing be undertaken (Bailey et al., 1995; Bailey, Palferman, Heavey, & LeCouteur, 1998; Cederlund & Gillberg, 2004; Hallmayer et al., 2002;

Rutter, 2005;Turner, Barnby, & Bailey, 2000; Volkmar, Kin, & Pauls, 1998; Zafeiriou, Ververi, & Vargiami, 2007).

Screening

Screening is the first step in the identification of autism. The screening process helps rule out further assessments or may signal further assessments are needed to determine if a child is a student with a disability. Screening occurs in both the educational and medical communities. Kansas local education agencies are responsible for screening as a part of child find requirements under Part B of IDEA 2004. The child find requirements for schools apply to children from birth to 21 years of age, and involve a screening process for children birth through five and a general education interventions process for Kindergarten through 21. (KSDE, 2008).

Screening for children from birth to age five. Local education agencies (LEAs) collaborate with a number of agencies to conduct child find screening activities for children from birth to five years, such as Early Head Start, Head Start, Parents as Teachers, local community child care and preschool programs, local health departments, Healthy Start Home Visitors, and KanBe Healthy Kids Screeners. These Part B IDEA 2004 screening requirements for children birth to five years old overlap with Part C Infant-Toddler IDEA 2004 requirements, so local education agencies work in collaboration with Infant-Toddler networks to ensure screening for all children (KSDE, 2008). The screening is to be a quick look at a child for whom there is a concern about an area of development, and the process should include observations, instruments, measures, and techniques that ensure early identification of disabilities in children (K.A.R. 91-40-7(b)). Parents with concerns about the development or behavior of a child under the age of five may contact their local school district for screening information.

General Education Interventions for students in Kindergarten through age 21. Kansas uses General Education Interventions (GEI) to locate and identify school-aged students with exceptionalities as part of its plan for early identification of students (KSDE, 2008). Currently, Kansas uses two different approaches for GEI, a multi-tier system of supports or individual problem solving model. Either approach (MTSS or the individual problem solving model) may be used to provide early intervention for students in need of additional supports to be successful (KSDE, 2008). When it is determined that a student needs GEI, the team works with the child's family members to identify the academic or behavioral concerns, collect baseline data, review existing data, and collect new data to develop a hypothesis regarding possible causes of the problem. Baseline data collected by the GEI Team may include, but are not limited to, the following:

- Hearing and vision screenings;
- Observations of the child on different days across settings (e.g., recess, lunch time, physical education, transitions, class time, etc.);
- Communication skills;
- Assessments to identify instructional or behavioral strategies (e.g. reading inventory or functional behavioral assessment);
- Parent interviews;
- Review of existing records;

Based on this information, research-based interventions are identified and implemented within the general education setting. On-going data-based documentation is gathered for continuous monitoring of interventions implemented**.** This process of designing and re-designing supports continues until a successful intervention is found or it is evident that resources beyond general education are needed. Although most students benefit from the interventions that are implemented through the GEI process, it is important that GEI teams promptly refer a student for an initial evaluation for special education services if they suspect the student is a child with a disability. The GEI process may continue as a part of the evaluation. (KSDE, 2008). The earlier a disability is identified and the student receives specially designed instruction and/or related services, the earlier the student can benefit from one of the many specialized intervention approaches and instructional strategies (Autism Society of America, 2007).

A number of screening and diagnostic tools are available to assist in the early identification of ASD. These tools should not be used as sole diagnostic measures. (See Appendix B for a list of screening, diagnostic, and ongoing assessment tools.)

Comprehensive Evaluation

If ASD is suspected in a child, the child should be referred for a special education evaluation and/or a medical evaluation (Centers for Disease Control, n.d.). Additionally, family members may request an initial evaluation at any time from the local education agency (LEA) (KSDE, 2008). The LEA conducts the initial comprehensive educational evaluation for children aged three through 21. This educational evaluation provides educators and family members with information to determine eligibility for special education services under Part B of IDEA (2004). If determined eligible for special education services, the evaluation results are also used to develop an individual Education Plan (IEP). The National Research Council (2001) recommends that follow-up assessments occur within 1-2 years after the initial evaluation due to the variability in early diagnosis and test scores of young children with Autism Spectrum Disorders.

Education team members collect data on an ongoing basis to evaluate the progress made toward student goals and benchmarks. Presenting this ongoing data in the form of a graph to show growth or lack of growth over time may be helpful. Also, data collected from home, school, and community settings may be gathered to measure generalization of skills across settings. Another consideration in gathering ongoing assessment data is to be cognizant of the limitations of standardized tests when administered to students with ASD; assessment tools that rely heavily on verbal skills and social interaction may not produce valid results. The areas of assessment generally considered in monitoring the progress of students with autism include intelligence, academics, adaptive behavior/behavior, social, communication, language, literacy, and transition. (See Appendix B for a review of ongoing assessment tools education teams may consider when monitoring ongoing progress and needs of a student with ASD.)

References

American Psychological Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington DC: Author.

Autism Society of America. (2007). *Diagnosis and consultation.* Retrieved November 27, 2007, from http://www.autism-society.org/site/PageServer?pagename=about_diag

Bailey, A., Palferman, S., Heavey, L., & LeCouteur, A. (1998). Autism: The phenotype in relatives. *Journal of Autism and Developmental Disorders, 28*, 369-392.

Bailey, A., Le Couteur, A., Gottesman, I., Bolton, P., Simonoff, E., & Yuzda, F. (1995). Autism as a strongly genetic disorder: Evidence from a British twin study. *Psychological medicine, 25*, 63-77.

Cederlund, M., & Gillberg, C. (2004). One hundred males with Asperger syndrome: A clinical study of background and associated factors. *Developmental Medicine and Child Neurology, 46*, 652-661.

Centers for Disease Control. (n.d.). *Learn the signs. Act early.* Retrieved November 27, 2007, from http://www.cdc.gov/ncbddd/autism/ActEarly/default.htm

Dawson, G., & Osterling, J. (1997). Early intervention in autism: Effectiveness and common elements of current approaches. In M. Guralnick (Ed.), *The effectiveness of early intervention: Second generation research* (pp. 307-326). Baltimore, MD: Paul H. Brookes.

Doyle, B. T., & Iland, E. (2004). *Autism spectrum disorders from A to Z: Assessment, diagnosis and more.* Austin, TX: Future Horizons.

First Signs, Inc. (2001). *Red flags.* Retrieved November 27, 2007, from http://firstsigns.org/concerns/flags.htm

Gallagher, J. J. (1992).The role of values and facts in policy development for infants and toddlers with disabilities and their families. *Journal of Early Intervention, 16*(1), 1-10.

Hallmayer, J., Glasson, E., Bower, C., Petterson, B., Croen, L., Grether, J., & Risch, N. (2002). On the twin risk in autism. *American Journal of Human Genetics, 71*(4), 941-946.

Kansas Department of Health and Environment. (2000). *Procedure manual for infant-toddler services in Kansas.* Topeka: Author.

Kansas Department of Health and Environment. (2008). *KAR 28-4, 28-4-550 to 572.* Retrieved October 29, 2008, from http://www.kdheks.gov/its/kar28-4-550to572.html

Kansas State Department of Education. (2008). *Kansas special education process handbook.* Topeka, Author.

Koegel, R. L., Schreibman, L., Loos, L. M., Dirlich-Wilhelm, H., Dunlap, G., Robbins, F. R., & Plienis, J. (1992). Consistent stress predictors in mothers of children with autism. *Journal of Autism and Developmental Disorders, 22*(2), 205-216.

National Association of State Directors of Special Education. (2005). *Response to Intervention: Policy considerations and implementation*. Alexandria, VA: Author.

National Resource Council. (2001). *Educating children with autism*. Washington, DC: National Academy Press.

Plauch, C., & Johnson, A. (2007). Identification and evaluation of children with autism spectrum disorders. *PEDIATRICS, 120*(5), 1183-1215.

Rutter, M. (2005) Genetic influences and autism. In F. R. Volkmar, R. Paul, A. Klin, & D. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd ed.) (pp.425-452). New York: Wiley.

Strock, M. (2004). *Autism spectrum disorders (pervasive developmental disorders)* (NIH Publication No. NIH-04-5511) [Electronic version]. Retrieved April 11, 2005, from http://www.nimh.nih.gov/publicat/autism.cfm

Turner, M., Barnby, G., & Bailey, A. (2000). Genetic clues to the biological basis of autism. *Molecular Medicine Today*, 6, 238-244.

Volkmar, F., Klin, A., & Pauls, D. (1998). Nosological and genetic aspects of Asperger syndrome. *Journal of Autism and Developmental Disorders, 28*, 457-463.

Wieder, S. (1994). *Diagnostic classification of mental health and development disorders of infancy and early childhood*. Washington, DC: Zero to Three.

World Health Organization. (1979). *International statistical classification of diseases, injuries, and causes of death* (9th ed.). Geneva: Author.

Zafeiriou, D., Ververi, A., & Vargiami, E. (2007). Childhood autism and associated co-morbidities. *Brain & Development, 29*(5), 257-272.

CHAPTER THREE

EDUCATION PROGRAM DESIGN

Planning effective programs for children with ASD is both challenging and rewarding due to the variety of student characteristics and needs. Although students with autism often present significant instructional challenges, learning can be facilitated through appropriate, systematic, and individualized teaching practices. While the research about effective practice for students with ASD is still growing, there is a general consensus on the components of effective programs. Several of these components are reviewed in this chapter, including early intervention, collaboration, access to general curriculum, and systematic instruction. (Dawson & Osterling, 1997; Hurth et al., 1999; Iovannone et al., 2003; The National Early Childhood Technical Assistance Center, 2001.)

Early Intervention

The National Research Council (2001) strongly recommends that a child receive intervention as soon as a diagnosis of ASD is suspected. Support for early intervention is based on evidence indicating that better educational outcomes are achieved when effective services begin early. Special education services should be implemented as soon as the student is determined to be eligible for services under IDEA (2004).

The benefits of early intervention for children are numerous. An abundance of the literature has reported a variety of benefits for both the child and family members (Anderson and Romanczyk, 1999; Koegel, Koegel, Harrower, and Carter, 1999; Schreibman, 2000, Dawson, G and Osterling 1997). The below listed benefits include, but are not limited to, the following:

- An opportunity for family members and educators to intervene prior to the development of aberrant behaviors that interfere with the student's functioning.
- An opportunity for family members and educators to begin teaching communication strategies prior to the development of idiosyncratic communicative patterns.
- An opportunity for educators to assist family members in the development of effective teaching strategies for use in the student's environments to assist in the generalization of skills learned across a various settings.
- An opportunity for family members and educators to work collaboratively, building a network of support for the family.
- An opportunity for family members and educators to facilitate social networks for the student in school and community environments.
- Reduction in the intensity and direction of special education services that may be needed throughout the student's education career (Jacobson, Mulick, & Green, 1998).

Collaboration

Effective programming for students with ASD requires a collaborative team approach. Federal and state legislation mandate that parents and educators participate in the development of the child's IEP. Additionally, individuals who have knowledge of the child may be included at the parent's request. This collaboration occurs throughout the school year to implement, monitor, and evaluate the effectiveness of the student's IEP.

Collaborative teams support one another in providing consistent opportunities for students to learn new skills, apply those skills in their everyday environments, and generalize skills learned across new environments with different people. Most importantly, parent participation is critical to successful collaboration. Parents are considered core team members. They are able to provide unique insights about their child and can help support the development of new skills as well as maintain previously learned skills outside of the classroom setting (Shelton and Stepane, 1994).

Team Effectiveness. Educational teams foster strong relationships by practicing open and ongoing communication and demonstrating mutual respect in an effort to positively impact outcomes for learners. The below listed components of effective teams include, but are not limited to, the following:

- team members have same goals and values;
- team member roles are established and understood;
- team members communicate effectively;
- team members feel a sense of cohesion, unification, support and respect;
- team logistics and procedures are in place; and
- team outcomes are established through strategic decision making and monitoring (Fliming & Monda-Amaya, 2001).

Early intervention team approach. An option to service delivery consistent with the mission and principles of Part C services (OSEP, 2007) involves a primary provider approach. In some early intervention models, this primary provider is referred to as a primary coach. This approach supports the idea that family priorities, needs, and interests are addressed most appropriately by a primary provider who represents and receives team and community support. The primary provider keeps abreast of the changing circumstances, needs, interests, strengths, and demands in the family's life. The primary provider accesses other services and supports as needed. Another responsibility of the primary provider is to assure the outcomes, activities, and recommendations are compatible with family life and are not overwhelming, confusing, or inconsistent. Additionally, services identified using this approach are individualized to meet the needs of the child and family (NECTAC, 2007; Rush & Sheldon, 2005).

Family Involvement. Families who have a child with ASD are affected by his or her unique needs on a daily basis. Families have the most information about their child's learning styles, preferences, choices, dislikes, and strengths. Parents, as members of their child's team, share this important information to their team members (i.e. the IEP team) to assist in the development and monitoring of progress of their child's IEP. Parents need to receive information throughout the collaborative team process regarding the type and range of services available. Educators should assist parents in understanding and interpreting evidence-based practices, the effectiveness reported about instructional strategies and academic programs, and recommended interventions. Parents can best be informed of school events and their children's progress by open and ongoing home and school communication on a daily basis (Seligman and Darling, 1997).

Parent Training. Parent training is key component of successful collaboration and improved outcomes for students. Preschool and school-age students may receive support from their child's educators in implementing an object activity schedule, practicing socially appropriate behaviors, or using assistive technology at home or in the community. This is an effective means of helping family members incorporate what their child is learning in school into naturally occurring family routines.

When helping families incorporate instructional strategies into family routines, some skills that are most conducive for learning in the child's home include, but are not limited to, the following:

- daily living skills, such as eating, dressing, grooming, cooking, or cleaning;
- safety skills, such as the child responding to his or her name, not touching the stove when it is hot, or walking is front of a swing while someone is using it;
- communication skills, such as asking for a toy, getting attention by grabbing Mom's hand, and taking turns during a game with the child's sister; and

- play and /or leisure skills, such as playing on the slide outside, sharing a computer game, and attending birthday parties of classmates (the activity and materials need to be meaningful, preferred, and chronologically age-appropriate) (Ozonoff & Cathcart, 1998).

Parent training is also available through parent information and resource centers (PIRCs), special interest groups, their child's school, and special projects. Offering family members supports and resources that are easily accessible can reduce family stress and increase interactions with other family members who have children with ASD (Milgrim, 1988). Providing parents with information concerning available resources is essential to successful collaboration (See Appendix A for websites.)

Access to the General Education Curriculum

General education curriculum adaptations and modifications for students with ASD should focus on maximizing success in school settings; developing independent functioning across settings, home, school, vocational, community environments; and furthering students' awareness of autism and the types of supports they need to function in any environment to improve overall quality of life (Connecticut State Department of Education, 2005). The Kansas State Department of Education has developed standards for academic content areas and extended standards (for students who receive special education services and take the *Kansas Alternate Assessment* per the student's IEP) including, Mathematics, Science, Reading, Writing, and History-Government. For children not yet entering kindergarten, the general education curriculum is comprised of developmentally appropriate activities (IDEA, 2004) consistent with the Kansas Early Learning Document (2009).

Many children with autism are successfully included in general education classrooms while learning with their nondisabled peers (Wagner, 1998). Peers are role models for appropriate social behavior and can assist the student with autism to generalize skills across environments. Dunlap (1999) reports a critical key to success is to match the needs of the child to appropriate practices, supports, and services. When considering access to the general education curriculum for students with ASD, parents and education professionals should:

- Determine appropriate supports, accommodations, and modifications to support the student's access to the general education curriculum;
- Collaborate with families to establish shared preferences for goals methods, and educational services (Iovannone et al., 2003);
- Embed the student's special interest and preferences in the program methods (Hurth et al., 1999; Iovannone et al., 2003); and
- Identify the student's strengths and weaknesses (i.e. student profile) to determine intensity of instructional level (Iovannone et al., 2003; National Research Council, 2001).

Mainstreaming, LRE, and Inclusion. Mainstreaming, least restrictive environment (LRE), and inclusion are not synonymous terms. Mainstreaming, a practice that originated in the 1970s, refers to the student spending parts of the school day with peers who do not have disabilities. With mainstreaming, this type of educational setting only occurs if the student has attained the behavior and/or academic skills in order to participate in that setting. The LRE is a statutory term and refers to the educational environment in which special education services are provided. LRE is based on a continuum of placements in which a student with a disability can receive benefit from his or her education and must be the point on the continuum of educational settings where the student can participate with non-disabled peers to the maximum extent appropriate (KSDE, 2008). IEP team members make the decision as to where on the continuum the student will be placed (IDEA, 2004). Inclusion refers to a belief system that drives educational practice and is not merely an issue of a student's educational placement (McGregor & Vogelsberg, 1998). "Clearly, inclusion is more than a set of strategies or practices, it is an educational orientation that embraces differences and values

the uniqueness that each learner brings to the classroom" (Kluth, 2007). Inclusion has been credited for a number of positive influences for students with and without disabilities. Specifically, inclusion has shown to have the following benefits:

- reduced fear of human differences accompanied by increased comfort and awareness (Peck et al., Carter & Helmstetter, 1992);
- growth in social cognition (Murray-Seegert,1989);
- improvement in self-concept of students without disabilities (Peck et al., Carter & Helmstetter 1992);
- development of personal principles and ability to assume an advocacy role toward their peers and friends with disabilities; and
- warm and caring friendships (Bogdan & Taylor, 1989).

Planning for Academic Achievement, Social Interactions, and Functional Skills. Careful planning and implementation of all aspects of a student's program should occur so that the student's social and academic needs are addressed (Kamps, Barbetta, Leonard, & Delquardi, 1994). The general education teacher may need support from team members to ensure the student's needs are being met within the general education classroom. Support may include additional training for team members who work with the student or time to collaborate with those individuals who have expertise working with students who have ASD.

Considerations for successful integration in the general education setting include the following:

1) What are the educational benefits to the student in the general education setting versus the educational benefits of a special education setting (or other placement options along the continuum)?
2) How will the student with ASD benefit personally by interacting with typical peers?
3) Are there benefits to the teacher and typical peers in the general education environment by having the student with ASD receive instruction in the general education setting?
4) How will student success be defined and measured (National Research Council, 2001)?

Student Engagement in Intensive Instructional Individualized Education.

Engagement is considered a viable measure of intensity by attending to salient features of a given lesson, environment, or stimulus. Students with ASD, particularly young children, may spend little time engaged in purposeful, appropriate, goal-directed behavior. Rather, they tend to be either disconnected from their surroundings, or perseverate on specific aspects of objects or people. Frequently, students with ASD do not attend to their environmental surroundings and lack imitation skills as a means to acquire social, academic, and cognitive skill competencies.

The instructional strategies chosen for students with ASD should support high rates of engagement. Time engaged in an activity can be provided at different levels of intensity and frequency. Activities may occur in a variety of settings using a variety of strategies that may include: direct instruction, independent work, small group instruction, and layered grouping within special education services delivered in general education environments. One of the primary goals for any student is to increase the amount of time he or she is actively engaged in instructional, developmentally appropriate activities across the day and across all settings in order to achieve maximum academic, social, and functional outcomes.

Intensive Instruction. The National Research Council (2001) reviewed comprehensive program models that provided children with 20 to 45 hours per week of intensive intervention. Intervention was delivered throughout the calendar year and included the years that the child received services in early childhood education. Based on the results of the report, the National Research Council recommended that intensive instruction be delivered across environments including a combination of specialized instruction, related services, and general education. Also noted in report, is the need to provide training to families in order to supplement formal school programming in community and at home environments.

However, the appropriate amount and intensity of instructional services for any individual student varies based on that student's developmental level, age, strengths, weaknesses, and family needs (Lord, et al., 2007, National Research Council). For a student receiving services through an IEP, the student's IEP team determines the appropriate amount and intensity of instructional services needed for that student to receive an educational benefit based on the individual needs and present levels of the child. Information regarding the intensity of the student's instructional services should include, but is not limited to, the number of hours per week or day that services are provided, the number and/or type of environments in which the teaching occurs (e.g., classroom, general school environment, home, and/or community), and the educational and social validity of the instructional strategies (Strain and Hoyson, 2000). Intensity is best measured by, "…large numbers of functional, developmentally relevant, and high interest opportunities to respond actively" (Strain and Hoyson, 2000, p. 119). In determining the intensity of the program that the student should receive in the educational setting, the team should take into account the following:

- the student's degree of needs;
- the student's ability to engage in natural environments with little or no support;
- the student's developmental level and age;
- the student's related service needs;
- the student's ability to generalize skills in multiple settings; and
- the student's rate of progress toward meeting his or her individualized education program goals.

References

Anderson, S.R. & Romanczyk, R. G. (1999) Early intervention for young children with autism: Continuum-based behavioral models. *Journal of the Association for the Severely Handicapped*,24 (2):162–173.

Aspy, R. and Grossman, B. (n.d.).Document3What is the ziggurat model? Reinforcement. Retrieved August 2, 2007, from http://texasautism.com.

Brown, K.E. & Mirenda , P. (2006) Contingency mapping: Use of a novel visual support strategy as an adjunct to functional equivalence training. *Journal of Positive Behavior Interventions*, 8(3) pp. 155 - 164.

Bogdan, R. & Taylor, S. J. (1989). Relationships with severely disabled people: The social construction of humanness. *Social Problems, 36*(2), 135-148.

Connecticut State Department of Education. (2005). *Guidelines for identification and education of children and youth with autism.* Hartford: Author.

Dalrymple, N. J. (1995). Environmental Supports to Develop Flexibility and Independence. In K. A. Quill (Ed.), *Teaching children with autism: Strategies to enhance communication and socialization.* New York: Delmar Publishers Inc.

Dawson, G. & Osterling, J. (1997). Early intervention in autism. In M. Guralnick (Ed.), *The effectiveness of early intervention: Second generation research* (pp. 301-326). Baltimore, MD: Paul H. Brookes.

Downing, J. E., Morrison, A. P., & Berecin-Rascon, M. A. (1996). Including elementary school students with autism and intellectual impairments in their typical classrooms: Process and Outcomes. *Developmental Disabilities Bulletin, 24,* 20-45.

Dunlap, G. (1999). A demonstration of behavioral support for young children with autism. *Journal of Positive Behavioral Interventions*, 2,77–87.

Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday family and community life and children's naturally occurring learning opportunities. *Journal of Early Intervention*, 23, 151-164.

Durrand, V., Crimmins, D., Caulfield, M., & Taylor, J. (1989). Reinforcer assessment I: Using problem behaviors to select reinforcers. *Journal of the Association for Persons with Severe Handicaps*, 14, 113 - 126.

Earles, T., Carlson, J., & Bock, S. (1998) Instructional strategies to facilitate successful learning outcomes for student with autism. In R.L. Simpson & B.S. Myles (Eds.), *In Educating children and youth with autism: Strategies for effective practice.* Austin: PRO-ED.

Faherty, C., & Hearsey, K. (1996). *Visually structured tasks: Independent activities for students with autism and other visual learners.* Chapel Hill, NC: Division TEACCH.

Fox, L. & Dunlap, G. (2002). Family-centered practices in positive behavior intervention and support. *Beyond Behavior, 11,* 24-25.

Fleming & Monda-Amaya (2001). Process variables critical for team effectiveness: A Delphi study of wraparound team members. *Remedial and Special Education*, 22(3), 158-171.

Hurth, J., Shaw, E., Izeman, S., Whaley, K., & Rogers, S. (1999). Areas of Agreement about Effective Practices among Programs Serving Young Children with Autism Spectrum Disorders. *Infants and Young Children, 12*(2), 17-26.

Individuals with Disabilities Education Improvement Act (IDEA) of 2004. Public Law 108-446, 20 U.S.C. et seq.

Iovannone, Dunlap, Huber, & Kincaid, (2003). Effective educational practices for students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 18,* 150-166.

Jacobson, J.W., Mulick, J.A., & Green, G. (1998). Summary: cost-benefit estimates for early intensive behavioral intervention for young children with autism. *Behavioral Interventions, 13*, 201-226.

Kansas State Department of Education (2008) *2008-2009 KSDE – IDEA Part B and Gifted Special Education Data Dictionary*. Downloaded 10-31-08 from: http://www.ksde.org/LinkClick.aspx?fileticket=Lcr17iA1A6Q=&tabid=2586&mid=7094

Kamp, D., Barbetta, P., Leonard, B., & Delquadri, J. (1994). Classwide peer tutoring: An integration strategy to improve reading skills and promote interactions among students with autism and regular education peers. *Journal of Applied Behavior Analysis, 27,*: 49-60,

Koegel, L.K., Koegel, R.L., Harrower, J.K., & Carter, C.M. (1999). Pivotal response intervention I: Overview of approach. *Journal of the Association for the Severely Handicapped* 24:174–185.

Kluth, P (n.d.). Inclusive Schooling: Is your school inclusive? Retrieved August 13 2007, from http://www.PaulaKluth.com.

Kansas State Department of Education. (2008). *Kansas special education process handbook*. Topeka.

McGregor,G. & Vogelsberg, R. (1998). Inclusive schooling practices: Pedagogical and research foundations. A synthesis of the literature that informs best practices about inclusive schooling. Pittsburgh, PA: Allegheny University of Health Sciences. Retrieved July 24, 2007 from ERIC Document Reproduction Services, ERIC NO. ED 418 559.

Mesibov, G.B., Schopler, E. & Hearsey, K. (1994). Structured teaching. In E. Schloper and G.B. Mesibov (Eds.) *Behavioral issues in autism* New York: Plenum Press.

Milgram, N.A. & Atzil, M. (1988). Parenting stress in raising autistic children. *Journal of Autism and Developmental Disorders 18*, 415–424.

Murray-Seegert, C. (1989). *Nasty girls, thugs, and humans like us: Social relations between severely disabled and nondisabled students in high school*. Baltimore, MD: Paul H. Brookes.

National Research Council. (2001). *Educating children with autism.* Committee on Educational Intervention for Children with Autism. In C. Lord and J.P. McGee (Eds.). Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

Office of Special Education Programs Technical Assistance Community of Practice Part C Settings. (2007).. *Mission and principles for providing services in natural environments and agreed upon practices for providing services in natural environments* [Final draft]. Retrieved October 14, 2008 from, http://www.nectac.org/topics/families/families.asp

Olley, J.G. (1999). Curriculum for students with autism. *School Psychology Review, 28*(4), 595-607.

Ozonoff, S. & Cathcart, K. (1998). Effectiveness of a home program intervention for young children with autism. *Journal of Autism and Developmental Disorders*, 28,25–32.

Peck, C.A., Carlson, P., & Helmstetter, E. (1992). Parent and teacher perceptions of outcomes for typically developing children enrolled in integrated early childhood programs: A statewide survey. *Journal of Early Intervention*,(16),53-63.

Prizant, B.M. & Rubin, E. (1999). Contemporary issues in interventions for Autism Spectrum Disorders: A commentary. *Journal of the Association of Persons with Severe Handicaps*, 24(2), 199-217.

Prizant, B., Wetherby, A., Rubin, E., Rydell, P., Laurent, A. & Quinn, J. (2003). The SCERTS® model. Special issue of the *Jenison Autism Journal*.

Procedure Manual for Infant Toddler Services in Kansas. 2002. Kansas Department of Health and Environment

Rush, D.D. & Shelden, M.L. (2005) An evidence-based definition of coaching practices, Retrieved Oct. 31, from: http://www.fippcase.org

Schopler, E., Mesibov, G., & Hearsey, K. (1995). Structured teaching in the TEACCH system. In Schopler, E. & Mesibov, G. (Eds.), *Learning and Cognition in Autism.* New York: Plenum Press.

Schreibman, L. (2000). Intensive behavioral/psychoeducational treatments for autism: Research needs and future directions. *Journal of Autism and Developmental Disorders* 30(5),373– 378.

Seligman, M. & Darling, R.B. (1997). *Ordinary Families, Special Children, 2nd ed.* New York: Guilford Press.

Shelton, T. L. & Stepanek, J.S. (1994). *Family-centered care for children needing specialized health and developmental services.* Bethesda, MD: Association for the Care of Children's Health.

Simpson, R. (2005). Evidence-based practices and students with autism spectrum disorders. *Focus on Autism and other Developmental Disabilities* 20(3),141-149.

Simpson, R., de Boer-Ott, S., Griswold, D., Myles, B., Byrd, S., Ganz, J., 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: LAP follow-up outcomes for children with autism. *Topics in Early Childhood Special Education,* 20(2), 116-122.

Strock, M. (2004). *Autism Spectrum Disorders*. Retrieved May 23, 2006, from http://www.nimh.nih.gov/publicat/Autism.cfm

Symon, J. B. (2005). Interventions for children with autism: Parents as trainers. *Journal of Positive Behavior Interventions, 7*(3), 159-173.

The National Early Childhood Technical Assistance Center. (n.d.). *Elements of effective programs.* Retrieved January 14, 2008 from, http://www.nectac.org/topics/Autism/effecprog.asp

Wood, M. M., Davis, K. R., Swindle, F. L., & Quirk, C. (1996). Developmental therapy-developmental teaching: *Fostering social-emotional competence in troubled children and youth* (3rd ed.). Austin, TX: Pro-Ed.

Workgroup on Principles and Practices in Natural Environments (November, 2007) *Mission and principles for providing services in natural environments*. OSEP TA Community of Practice-Part C Settings. http://www.nectac.org/topics/families/families.asp

CHAPTER FOUR

HIGH QUALITY PROGRAMS

High quality educational programs for students with ASD have many elements in common which combine to provide a comprehensive program based upon individual student needs. Elements of a high quality program are (a) individual evaluations, (b) IEP development, (c) curriculum, (d) instructional activities, (e) instructional methods, (f) instructional environments, (g) progress monitoring, (h) family involvement and support, (i) inclusion, (j) transitions, (k) challenging behaviors, (l) sensory integration, (m) community collaboration, and (n) personnel[1]. These elements, described in this chapter, identify those specific features which constitute a high quality educational program for students (National Research Council, 2001). School districts in Kansas may request access to a self-assessment based upon the *Autism Program Quality Indicators: A Self-Review and Quality Improvement Guide for Schools and Programs Serving Students with Autism Spectrum Disorders* (Crimmins, Theurer-Kaufman, & Everett, 2001) by contacting KISN. (See Appendix A for KISN Website information.)

Individual Evaluation

An evaluation of a student suspected of having autism presents a variety of challenges to the educational team. As previously stated, autism is an exclusionary disability that presents an array of characteristics, that are more intense and frequent in nature than for students with other types of disabilities. An evaluation process for identifying a student suspected of having autism should contain the below listed elements including, but are not limited to, the following:

- form a multidisciplinary team;
- conduct a record review (e.g., medical, developmental, and social history);
- conduct a diagnostic screening;
- administer appropriate testing instruments, observation, and interviews;
- determine if the student has characteristics consistent with ASD;
- determine the student's eligibility for special education services;
- conduct an assessment of present levels academic achievement and functional performance (PLAAFP) to determine program goals and objectives, including the areas of academic, behavioral, social, leisure, vocational, gross and fine motor, sensory, and communication;
- include written reports that provide insight of the student's learning preferences and choices;
- determine necessary accommodations for the student to participate in the least restrictive environment with peers who are non-disabled; and
- develop the student's IEP with sensitivity to the culturally significant factors of the family.

Development of the IEP

The development of the student's IEP needs to be based on the results of the evaluations, team input, and PLAAFP that meets the student's individual needs. Considerations in developing the Individualized Education Programs for students with ASD should include, but are not limited to, the following:

- communication;
- social interactions;
- behavior and emotional development;
- play and use of leisure time;

---

[1] Adapted from: Crimmins, D. B., Durand, V. M., Theurer-Kaufman, K., & Everett, J. (2001). *Autism program quality indicators: A self-review and quality improvement guide for schools and programs serving students with autism spectrum disorders* [Electronic version]. Retrieved December 13, 2006, from http://www.vesid.nysed.gov/specialed/autism/apqi.htm

- sensory integration;
- academic content areas;
- vocational and career exploration (for the student who is facing transition to post-secondary environments);
- accommodations including supplementary aids and supports necessary for the student to participate in the least restrictive environment with peers who are nondisabled; and
- physical development.

Curriculum

The curriculum for students with ASD should align with the *Kansas Curricular Standards* in the academic areas of Reading, Writing, Mathematics, History-Government, and Science and the *Kansas Early Learning Document* (2009). Alignment with these standards will assist the team in making statewide assessment decisions, along with the approved accommodations needed for the student to participate in daily instruction and participation on the statewide assessment tests. The curriculum should include, but not be limited to the following:

- The curriculum focuses on promoting academic achievement and independent functioning across environments, people, and materials.
- It is adapted to the different ages, abilities, learning preferences, and interests of the student.
- There is an emphasis on the development of a communication system for both verbal and nonverbal students.
- Appropriate social skill development is targeted in order to decrease inappropriate social skills.

Instructional Activities

Instructional activities that support learning are chronologically age appropriate and meaningful for the student. The instructional activities within a curriculum should incorporate the student's interests, preferences, and strengths. Activities should contain but are not limited to the below listed elements:

- High quality activities that provide multiple response opportunities, incorporate the interest of the student, promote and maintain active engagement, and embed in natural occurring routines across environments including academic settings.
- A variety of instructional formats and accommodations are used in presenting learning opportunities.
- Communicative interactions of each activity are emphasized to promote socially appropriate interactions with others.

Instructional Methods

Instructional methods are tailored to meet the student's educational and vocational (if age appropriate) needs. Instructional methods incorporate a variety of evidence-based approaches that are determined by the IEP team. Instructional methods should contain the below listed elements including, but are not limited to, the following:

- The degree of structure and intensity is matched to the academic, functional, and vocational abilities and needs of the student in order to participate with non-disabled peers to the extent possible.
- The instructional methods may include accommodations, as well as the supplementary aids and supports needed for the student to participate in academic and vocational activities with peers who are nondisabled.
- Instructional methods should use naturally occurring reinforcement systems (when applicable), in context (when possible) to encourage the acquisition of skills, which are faded out when the student demonstrates skill proficiency and sustainability of skill generalization across environments.

Academic and Instructional Environment

Academic and instructional environments are designed to promote student achievement and independence. Any environment in which the student participates in educational, vocational, and social activities should provide the adequate scaffolding for the student to acquire skills. Academic and instructional environments should provide appropriate structure including, but not limited to, the following:

- Clearly defined boundaries and
- Visual, tactile, kinesthetic, and auditory supports to enable the student to predict activities, anticipate change, and understand daily routines.

Progress Monitoring

High quality programs use the Kansas Multi-Tier System of Supports (MTSS) framework to systematically assess student progress and the effectiveness of instructional methods on an ongoing basis. Staff members and the student (when possible) use a feedback loop to determine if any changes are needed for the student's program. This requires data collection at specified times throughout the student's day. The data is analyzed on a regular basis to evaluate the student's achievement. Progress monitoring also helps staff members determine the depth and breadth of curriculum in which the student is participating. Ongoing progress monitoring contains but is not limited to the following elements:

- Data collection instruments are developed to provide feedback on individual student's IEP goals and objectives.
- Data are collected according to the nature of the activity and where the student is on the continuum of skill development (e.g., probes may be used for generalization, daily data collection for skill initiation, etc.).
- Data are quantitative, and if appropriate, qualitative (e.g., anecdotal comments usually written after an observation).
- Student progress is reviewed and summarized regularly by the IEP team members. When the team engages in progress monitoring they can better determine (a) if changes in instructional methods or accommodations should be made when progress has not been documented, or (b) there is an unexpected change in the student's behavior or health status that is interfering with his or her education or social relationships.

Family Involvement and Support

Family members are valued members of the educational team. As with other team members, family members assist in development and implementation of their child's IEP. Since family members are members of the educational team, they may request an IEP team meeting at any time during the academic calendar year. High quality programs encourage family involvement and support elements including, but are not limited to, the following:

- Family members are encouraged to actively participate in all aspects of their child's evaluation and education.
- Parents are made aware of general and special education services.
- The program providers (i.e. staff members) demonstrate an awareness and respect for the culture, language, values, and parenting styles of family members.
- Parent training may be provided so that families can help their child generalize skills across environments in which the family participates.
- A system for between home-school communications may be utilized.
- Families should be made aware of community-based resources for additional support.
- Education team members may collaborate with community service providers at the request of the parent to exchange information and support generalization of child skills across settings.

Inclusion

Students with ASD may be included in instructional, recreational, nonacademic activities, (e.g., lunch, recess, etc.), and extracurricular activities with their peers who are nondisabled. The amount of time that each student who has ASD spends with their peers who are nondisabled is individualized and should be monitored on an ongoing basis to determine whether the student needs more or less intensified instruction. High quality programs for students with ASD include elements of inclusion in their educational programs such as the following:

- Inclusion programs provide structured and informal opportunities for social or communicative interactions among students with ASD and students who are nondisabled.
- Autistic Spectrum Disorders awareness programs may be implemented for staff members and peers.
- Inclusion activities promote social interactions among students with ASD and their peers without disabilities.
- Inclusion in general education programs allows students with ASD to participate and achieve in academic content areas, nonacademic activities, and extra-curricular activities with their peers who are nondisabled.

Transitions

Parents and educators work collaboratively in planning transitions from one classroom, program, or service delivery system to another. High quality programs that plan for transitions throughout the student's educational career contain elements that include, but are not limited to, the following:

- Stakeholders (even individuals who are not a formerly a member of the student's educational team) are included in planning for transitions in the student's life.
- Transition planning follows a systematic timeline.
- Supports needed to participate in the next environment are transferred to the new setting providing the student is not over the age of 21.
- Transition planning for students who are age 14 and above include those adult service agencies that may provide services and resources for the student—both now and in the future.

Challenging Behaviors

Students who demonstrate challenging behaviors to the point where these behaviors are interfering with their social interactions, academic achievement, or maintaining a job should be recommended for a Functional Behavior Assessment (FBA) conducted by the educational team. Based on the results of the FBA, the team designs a Behavior Intervention Plan (BIP) that focuses on replacing the inappropriate behavior by teaching appropriate social skills or removing or rearranging the environment so what triggers the behavior goes unnoticed by the students. This type of approach is identified as positive behavior intervention and supports (PBIS). High quality educational programs contain elements of PBIS at three levels (a) school-wide, (b) small group, and (c) individual. The elements include, but are not limited to, the following:

- The communicative intent of the challenging behavior is determined through a series of pre-selected evaluation tools.
- The setting event, antecedent, behavior, and consequences are documented.
- Other assessments that relate to the physiological composition of the student and his or her family's culture are conducted.
- A review of records, observations, and educator and parent interviews are conducted.
- Communicative meaning is assigned to behaviors, and the physical and verbal responses are outlined for all communicative partners.
- A BIP is developed by the educational team that includes PBIS strategies identified to minimize challenging behaviors and increase appropriate social behaviors.
- Data are collected, progress is monitored, and revisions are made on an ongoing basis.

Sensory Integration

The integration of the six senses (vision, hearing, touch, olfactory, gustatory, and kinesthetic) bring common understanding to human experiences. For example, the sense of touch, olfactory, and gustatory work together when eating a ripe peach. For most people, the feel of the peach's skin is soft and the taste of the peach is sweet. For some individuals with ASD, the experience of eating a peach may be quite different because of how the senses interact. The fuzz on the peach may actually be experienced as painful and the smell may cause the individual to gag.

Some children with ASD are particularly sensitive to sound. While the most ordinary environmental sounds (e.g., hum of the heater) can increase excitability in a few students, sound may cause other students to shut down and become lethargic. In attempt to reduce sensory overload, the various senses used in a learning activity should be monitored using different strategies to increase or decrease the student's sensory thresholds. Most high quality programs contain the elements listed below:

- Staff members evaluate the student's sensory thresholds over a period of time during the school day.
- Staff members collaborate with each other, family members, and the student to gather additional information about the student's sensory integration needs.
- Accommodations, adaptations, and modifications may be made based on the results of multiple evaluation methods in order to enhance the student's learning.
- Environmental adaptations may be evaluated on an ongoing basis or upon an immediate change in the student's environment to prepare him or her for future contextual changes.

Community Collaboration

Community collaboration is essential to high quality programs. Academic achievement, appropriate vocational skills, career training, and appropriate social interactions will benefit not only the student and family members, but the community members as well. Additionally, the community has a wealth of resources and supports to assist the family and their child. High quality programs contain elements of community collaboration including, but not limited to the following:

- Family members receive assistance accessing services from community agencies and health providers.
- Students facing transition to post-secondary environments family members are encouraged to establish case management services through the Community Developmental Disabilities Organization (CDDOs). Community Developmental Disabilities Organizations are the single point of entry for Kansans with developmental disabilities to access community-based services and funding streams.
- While the student is still in school, family members are made aware that there are waiting lists for adult services.

Personnel

A compilation of educator competencies for professionals who work with students with ASD have recently been identified in the areas of characteristics, assessments, instructional planning, instructional strategies, and personnel practices. The competencies identify 30 knowledge targets accompanied by the skill level educators should demonstrate with proficiency while working with students who have ASD, their families, and educators. The Autism Society of America (ASA) Foundation's *Professional Competencies in Autism* were developed by the ASA National Standards Committee and reviewed by the Kansas stakeholder committees to provide feedback (ASA, 2007). These educator knowledge and skill levels are under consideration for acceptance by the National Council for Accreditation of Teacher Education (NCATE), Council for Exceptional Children (CEC), and the ASA. Educators and other service providers may consider these competencies when developing the knowledge and skills important to meeting the needs of students with ASD.

References

Autism Society of America Foundation. (2007). *Professional competencies in autism.* Bethesda, MD: Autism Society of America.

Crimmins, D. B., Durand, V. M., Theurer-Kaufman, K., & Everett, J. (2001). *Autism program quality indicators: A self-review and quality improvement guide for schools and programs serving students with autism spectrum disorders* [Electronic version]. Retrieved December 13, 2006, from http://www.vesid.nysed.gov/specialed/autism/apqi.htm

National Research Council. (2001). *Educating children with autism.* Washington, DC: National Academy Press.

CHAPTER FIVE

TRANSITIONS

Transition in the daily lives of students with ASD is significant, and is not a single event; rather, it is a combination of life changes (Simpson & Myles, 1998). Most importantly, transition spans the student's lifetime.

Transition occurs across two planes; the horizontal plane and the vertical plane (Patton & Dunn, 1998). Transitions that occur on the horizontal plane take place within an environment (a developmental level). This occurs when a student moves from one type of setting to another, has knowledge of the new environmental expectations, and is being supported by those who are familiar to the student. Vertical transitions occur when one of three elements—environment, expectations, and personal support—have changed. All students are expected to move through various environments and develop relationships with a variety of people in different contextual environments every day.

Transition from Part C to Part B

Children who receive special education services under IDEA Part C transition to IDEA Part B special education services providing they meet eligibility requirements at age three. Part C providers, family members, and educators from the local education agency (LEA) may consider the following questions about the transition process:

- Where is the child in the developmental process?
- What supports have been helpful?
- What are the child's likes and dislikes?
- What are the child's health issues?
- What instructional strategies and techniques have been the most successful?
- What can team members do now to better prepare the child and family members for the future transition?
- What are the skills the child needs?
- What are the expectations of the receiving environment?

Both Part C and Part B team members can ease the child's transition to a new environment by discussing the process that occurs for a child to receive special education services, suggesting supplementary aids and supports, and sharing information about the child. Teams may want to engage in a discussion of the differences between diagnosis and eligibility, the IEP process, and the LEA's desire to provide a quality program. Family participation is key to an effective transition process. The IEP team facilitates this process by gathering information from the parent about the child in addition to ensuring parents are aware of available supports, resources, and information about the IEP process, parental rights, and family organizations (KSDE, 2008).

Transition to and between School-Based Services

All students face transitions to and between school-based service settings, such as elementary to junior high or junior high to high school. Key topics the team members may discuss when the student is transitioning include, but are not limited to, the following:

- Determine the accommodations and supports necessary for the student to successfully participate in the general education setting.
- Assess the student's particular interests and choices as they grow.
- Identify opportunities for the student to be naturally involved in social settings (Henry and Myles, 2007).
- Consider developing a *Comprehensive Autism Planning System (CAPS)* to promote naturally occurring opportunities for students to practice communication, social relationship, and academic skills within the framework of the student's school day (Henry & Myles, 2007).

- Consider parent input in the development of the student's program and school involvement.

Transition from School to Post-school Services

The transition from school-based services to post-school services can be one of the most challenging times for students with autism and their families. Planning for the student's adult future needs to be well coordinated and thoughtfully planned. Parents, the student, community service providers, adult services agencies, and IEP team members should work collaboratively to guide the student and the student's family in the decision making process (Grigal, Neubert, & Moon, 2005).

Post-school transition planning must be included in a student's IEP by age 16, including appropriate measurable post-secondary goals and transition services needed to reach those goals (IDEA, 2004). Further, Kansas law requires a transition plan in a student's IEP at age 14 (K.S.A. 72-987(c)(8)). Transition services are defined "as a coordinated set of activities for a child with a disability that is designed to be within a results-oriented process, focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities. The coordinated set of activities developed for the student must be based on his or her needs, strengths, preferences, interests in the following areas:

- instruction,
- related services,
- community experiences,
- vocational,
- career exploration,
- self-determination,
- independent living, and
- recreation activities" (IDEA, 2004).

Students who have received training in self-determination will be more adept in participating, planning, and in some cases, leading the meeting for his or her transition services to post-school environments. Vocational experiences and career planning can assist students who face graduating from school and entering post-school environments (Patton & Dunn, 1998). As the IEP team members plan for future living, vocational, career, and other skills and supports the student will need once he or she transitions out of school, it is important to realize that adult services are discretionary and are not entitlement services. In other words, there is no guarantee of funding for services and supports the student may need. Therefore, the student's educational team in partnership with members from adult service agencies may need to leverage funds or search for outside funding sources.

A quality transition plan that has been developed and revisited by the student's team members over the course of a student's high school years is more likely to achieve positive post-school outcomes. Quality transition planning serves as a guide to educational programming and focuses on the student's interests, preferences, needs, and strengths. Moreover, it is a results-oriented process that considers post-school outcomes for independent living, employment, postsecondary planning, and community participation. Quality transition planning is a student-centered, coordinated effort relying on services within and outside the school setting (i.e. interagency linkages) (Wehman, 1998).

Clark (2007) stated that comprehensive transition planning helps students and family members begin to plan for future events, as well as the necessary supports, services, and aids needed for successful transition to adult environments beginning in early adulthood and continuing until the student graduates from school or through the age of 21 years old providing he or she continues to receive special education services. Team members may begin transition planning by reviewing the following frequently asked questions and answers:

(1) What is necessary for planning?
- student's personal interests and preferences
- student's family members
- student's self-determination knowledge and skills
- student's cognitive strengths
- student's academic strengths
- student's community participation and living skills
- student's vocational skills
- student's career exploration
- student's social skills
- student's physical and mental health status
- student's and student's family support needs

(2) What ways are the future environments different from the current environments in which the student participates?
- staff
- expectations
- physical layout
- schedule
- length of the transition phase
- timeline

(3) What are the sources of information that are needed for a successful transition?
- formal assessments
- informal assessments

Characteristics of Effective Transition Planning

Patton and Dunn (1998) identified characteristics of effective transition planning for students who are facing post-school environments. They described six primary characteristics including (a) proactive planning, (b) comprehensive, (c) student participation, (d) family involvement, (e) sensitive to diversity, and (f) community based activities. Listed here under each characteristic are some of the salient features that make transition planning a seamless system in the adult community, including but not limited to, the following:

(1) Proactive
- Encourage parents to submit applications with the Community Developmental Disabilities Organization (CDDO) to put their child's name on the waiting list for post graduation services.
- Conduct social skills training as needed.
- Implement behavior management programs as needed.
- Build student choice and decision making in their career planning.
- Ensure the student has a communication system as appropriate.

(2) Comprehensive
- Collaborate with adult service agencies and encourage their participation throughout the student's school career.
- Conduct individualized assessment and transition planning.
- Investigate adult services and agency supports.
- Investigate the student's eligibility for government benefits.
- Investigate estate planning/guardianship with the student's family members.
- Provide sex education and relationship education for the student (deFur, 1999).

(3) Student Participation

- Develop knowledge of the student's strengths and needs of support.
- Provide training related to disability rights to the student and the student's family members.
- Help the student develop self-advocacy skills.
- Teach goal setting and decision making skills to the student and the student's family members.
- Encourage the student's active participation in IEP meetings.

(4) Family Involvement

- Provide parents with written information about the transition process.
- Encourage active participation from the student and the student's family members at IEP meetings.
- Implement person-centered planning with the student's team (not necessarily his or her educational team) (MAPS, KSBE, 1992) PATH Pearpoint, O'Brien and Forest, 1995), COACH (Giangreco, Cloninger, and Iverson, 1998).
- Have parents look at options for adult services (work and housing).

(5) Sensitive to Diversity

- Conduct individualized assessment and transition planning that are sensitive to the areas of diversity based on the student's need, such as cultural, racial, ethnic, religion, gender, and social economic class (Kalyanpur & Day, 1999).

(6) Community-Based Activities

- Identify the student's interests in community groups.
- Teach social skills to the student (as necessary).
- Implement community-based career exploration and job skills training for the student (Kohler, 1996).

References

Clark, G. M. (2007). *Assessment for transitions planning* (2nd ed.). Austin, TX: Pro-Ed.

deFur, S. (1999).*Transition planning: A team effort.* Washington, DC: National Information Center for Children and Youth with Disabilities (NICHCY).

Giangreco, M. F., Cloniger, C. J., & Iverson, V. S. (1998). *Choosing outcomes and accomodationss for children (COACH): A guide to educational planning for students with disabilities*. Baltimore, MD: Brooks Publishing Co.

Grigal, M. E., Neubert, D. A., & Moon, M. S. (2005). *Transition service for students with significant disabilities in college and community setting,* Austin, TX: Pro-Ed, Inc.

Henry, S & Myles, B. S. (2007) *The comprehensive autism planning system (CAPS) for individuals with Asperger syndrome, autism and related disabilities: Intergrating best practices throughout the student's day* Shawnee Mission, KS Autism-Asperger Publishing Company.

Individuals with Disabilities Education Improvement Act (IDEA) of 2004. Public Law 108-446, 20 U.S.C.

Kalyanpur, H & Day, M. (1999). *Culture in special education: Building reciprocal family-professional relationships.*, Baltimore, MD: Paul Brooks Publishing Co.

Kansas State Board of Education, (1992). *MAPS: A plan for including all children in schools.* Topeka, KS: KSBE.

Kansas State Department of Education. (2008). *Kansas special education process handbook*. Topeka:KS : KSDE.

Kohler, P. D. (1996). *Taxonomy for Transition Programming*. Champaign: University of Illinois.

National Dissemination Center for Children with Disabilities (NICHCY). (2007). *Kansas state resources.* Retrieved April 30, 2008 from, http://www.nichcy.org/stteshe/ks.htm

Patton, J. R. & Dunn, C. (1998). *Transition from school to young adulthood: Basic concepts and recommended practices.* Austin, TX: Pro-Ed.

Pearpoint, J. O'Brien, J., & Forest, M. (1995) *PATH*: *A workbook for planning positive possible futures and planning alternative tomorrows with hope for schools, organizations, businesses, families.* Toronto, Ontario, Canada: Inclusion Press.

Simpson, R. L. ,Myles, B. S., Smith, S., & Donnelly, J. (1998). *Educating children and youth with autism: Strategies or effective practice*. Austin, TX: Pro-Ed, Inc

Wehman, P. (1998). *Developing transition plans.* Austin, TX: Pro-Ed, Inc.

CHAPTER SIX
INSTRUCTIONAL FRAMEWORK

Specific instructional strategies for students with ASD can be used to diminish problematic behaviors, such as self-injury, aggression, self-stimulation, and/or tantrums, as well as increase the acquisition of skills across academic and functional curricular areas (i.e., cognitive, communication, academic, social, motor, sensory, behavior, math, reading, science, writing, history, vocational, career, and community access skills). For academic, social, and functional programs to be effective, instruction must occur within a carefully planned framework (Hurth et al., 1999; Iovannone et al., 2003; National Research Council, 2001).

The instructional components recommended for students with ASD by the National Resource Council in 2001 include assessment, predictable learning environments, structured teaching, key elements in program structure and instructional methods, and ongoing program monitoring.

Assessment

Assessment results are used to identify the instructional and behavioral strengths and needs of the child with ASD. The assessment results are used to:

- develop benchmarks that include information regarding the context in which the skill or behavior will be demonstrated;
- ensure the criteria for mastery are clearly delineated;
- gather baseline data on benchmarks;
- implement instructional strategies; and
- evaluate and document outcomes.

Assessments also are used to measure the generalization of skills by:

- introducing multiple teachers, family/community members into the child's lesson;
- instructing the student in a multiplicity of settings; and
- exposing the student to a variety of language forms relevant to the cue presented, thus supporting the acquisition of fluent skill development.

Predictable Learning Environment

Children with ASD learn most effectively when instructional programs are highly predictable. Programs that provide predictable learning environments include components such as:

- provide structure within and across all settings;
- reduce and control environmental stimulation;
- provide responsive adults,
- help the student understand where to focus attention (whether in a group or individual instruction situations); and
- give meaning to instructional materials (Faherty & Hearsey, 1996).

Establishing predictable classroom, school, home, and community environments is important to the delivery of an appropriate individualized education for students with ASD (Heflin & Alberto, 2001). Many students with ASD have attention problems. A predictable environment helps increase the student's attention span since he or she will be able to anticipate what is going to happen next. There are all types of visual or auditory schedules available that support more predictable learning environments. Visual schedules are often a mainstay for students without disabilities. Students in elementary through high school and postsecondary programs learn to rely on schedules to organize their day, anticipate time periods where school is not in session, and keep necessary appointments (Dawson & Osterling, 1990; Iovannone et al., 2003). Preschoolers can learn to use picture schedules to ease transitions from one activity or setting to the next and to learn to follow routines.

Structured Teaching

Structured teaching is appropriate for students of all developmental levels and ages, especially for students with ASD (Simpson, de Boer-Ott, Griswold, Mules, Byrd, and Ganz, et al., 2005). In addition, the concept of structured teaching to meet the needs of students with ASD (Schopler, Mesibov, & Hearsey, 1994) is appropriate for students whether receiving instructional services in general education settings or not. Structured teaching was designed around the student's fundamental strengths and deficits impacting learning and social interactions, emphasizing a student's relative strengths in the areas of visual processing, acquiring visual-spatial skills, and learning the sensory-motor processing to overcome needs in the areas of auditory processing, verbal expression, attention, abstract thinking, and the generalization of knowledge and skills. The above processes and skills are the foci of six goals of structured teaching. The six goals of structured teaching are (a) to provide meaning within the environment; (b) to facilitate security and familiarity; (c) to lead feelings of calm and comfort; (d) to help eliminate irrelevant stimuli; (e) to focus attention on relevant information that makes learning possible; and (f) to teach, then generalize appropriate behaviors through the use of visual systems. Schopler (1995) identified four basic elements of structure that would meet these goals. These elements are:

- physical structure,
- individual schedules,
- work systems, and
- visual structure.

Physical structure. The physical structure focuses on the natural arrangement and organization of materials, furniture, and equipment within the learning environment. The physical purpose is to assist in developing independence; minimize visual and auditory distractions; provide clear visual boundaries that indicate where individual areas begin and end; and organize the environment to make it more meaningful. The components of arrangements for physical space are (a) uncluttered and clearly defined areas of instruction, and (b) adaptations needed for individual students who are bothered by noise, lights, and/ or movement create a predictable environment (Dalrymple, 1995).

Individual schedule. An individual schedule is a visual method used to inform a student which activities occur during their day, and the order in which the activities will occur. The purpose for using a daily schedule is (a) to teach flexibility; (b) to teach how to read a schedule from top to bottom and in left to right progression; (c) to aid in transitions; (d) to provide predictability; (e) to establish a routine; (f) to teach the concepts of first-then and finished; and (g) to accommodate receptive language needs. Components to consider when developing an individual schedule include:

- level of functioning; flexibility;
- mobility; fine motor skills;
- area of the environment where schedule will be posted;
- routine for checking the schedule; student's interests; and
- types of visual cue to be used to transition to the schedule.

Transition strategies also can include providing visual aids and/or depictions of daily schedules, using transitional objects, providing ample warning prior to a transition, and guiding the student through the transition (Dawson & Osterling, 1996).

Work system. A work system is a systematic means of presenting information in a way that is received and understood by the student. Following a work system allows the student to engage in activities both independently and interdependently. The purpose of a work system is to visually answer four key questions by the student. These four questions are:

- How much work is expected within a specific time period?
- What is the type of work?
- When is the work task finished?
- What comes next in the work system (Schopler, Mesibov and Hearsey, 1995)?

Experience shows that productivity increases when a student has a way of knowing how much work he or she needs to do and when he or she knows the work is finished. A work system also clarifies the expectations for the student. Work systems also support a student's sense of organization, activity structure and time, language comprehension and expressive communications, and the development of emotional regulatory strategies (Prizant, Weatherby, Rubin & Laurent, 2003).

Visual structure. The use of visual structures is considered as a best practice for students with ASD (Prizant & Rubin, 1999). Visual structures are the process of incorporating concrete visual cues into a task or activity. The purpose for using visual structures is to benefit from the visual strengths of a student with ASD, while minimizing reliance on potential weaker auditory processing skills. Visual structures increase the student's ability to work successfully and are characterized by three key elements (a) visual instructions, (b) visual organization, and (c) visual clarity (Earles, Carlson, & Bock, 1998; Faherty & Hearsey, 1996).

Visual instructions. Visual instructions demonstrate how (a) to combine and organize a series of parts to obtain the desired outcomes; (b) to provide the necessary information to put parts or details of a task together in a systematic and meaningful way; and (c) to promote the use of the student's with ASD visual skills in a functional way. This can be anything from the arrangement of materials to define a task, to providing a sample of a completed task.

Visual organization. Visual organization helps modulate sensory input by organizing materials and space within the work environment. This may include placing distinct materials into separate containers for keeping activities orderly, or limiting the work space to direct the student's focus toward relevant details. Visual organization eliminates the figure ground (i.e. excess background visual information) within the environment that can lead to distractibility and visual fatigue.

Visual clarity. Visual clarity gives meaning to tasks. The result of visual clarity is a greater understanding of the student regarding the intended purpose of the activity. It also provides further explanation of relevant information about the task by taking some of the "guess work" or reduces the cognitive demands for the student. The student is able to shift his or her focus to relevant details (e.g., color coding, numbering, adding pictures, icons, or words, graphic organizers), or the removal of any unnecessary information that is not part of the task.

Focusing solely on details of a task often prevents students with ASD from seeing the relationships between the parts from the whole. Some students with ASD also can be very rigid in their ideas about how materials might be used in different ways. Teaching students how to approach the environment using visual systems effectively by looking for visual properties of the task promotes students' generalization of learning from one context to the next (Faherty & Hearsey, 1996).

Key Elements of Program Structure and Instructional Methods

Teacher – Pupil Ratio. According to the National Research Council (2001), staff-to-student ratio for students who have ASD is dependent upon "program format, class size, and children's developmental and chronological age (p. 159)." These ratios can be systematically and intentionally adjusted across time in order to prepare students who have ASD to function more independently and interdependently in future settings. The appropriate number of students per adult enables the student to maximize his or her attention (Dawson & Osterling, 1996).

An effective program for students with ASD can also include small group instruction. Small group instruction often works best using teaching teams. Teaching teams consisting of the lead teachers (e.g., co-teachers, mentor teachers, general education teacher and special education teacher, etc.), and the support staff (e.g., paraeducators or related service providers) need to have clearly delineated roles to work effectively in implementing instructional strategies and techniques. Depending on the instructional activity, it is necessary that students attend to the lead teachers, paraeducators, or related service providers

[and at times peers if students are participating in a cooperative learning group (Downing, 1996)] to prompt them or provide guidance to acquire the next step in a skill sequence. These types of strategies allow students to actively participate in group activities (Wood, Davis, Swindle, & Quirk, 1996).

Reinforcers. Depending on the type of behaviors that are demonstrated by the student and/or the number of new socially appropriate behaviors that are expected to be learned, systematic application of natural, social, or tangible reinforcers can be used to increase the use of appropriate social behaviors. According to Grossman and Aspy (2007), "…without reinforcement there is no intervention." Reinforcement strategies must be naturally occurring and applied consistently to support the student in increasing his or her probability of quality social interactions. Typically, when a new skill is initiated, highly preferred tangible reinforcers are used on a regular basis. Once the student begins to demonstrate skill proficiency, the tangible reinforcers are paired or faded to social reinforcers (e.g., praise, recognition) using an intermittent, variable, or ratio reinforcement schedule. When the student is working on mastery of the skill across environments the social reinforcer is faded to a more natural reinforcer.

The type of reinforcer to be selected, as well as the appropriate social skill to be learned, is largely determined by the intent of the student's initial behavior which could be the caused by a need for sensory input, communication, (Brown & Mirenda 2006) attention, or escape (Durrand & Crimmins, 1989).

Ongoing Program Monitoring

A student with ASD will not "outgrow" the need for information to be presented in a meaningful and structured format. Key to successful instruction is the ability of educators to appropriately identify the types and amount of structure needed by a student to be effective in all aspects of academics, functional skills, and social interactions as determined through ongoing assessment. Simpson(2005) indicates that the use of ongoing progress monitoring will assist educators in making decisions on the effectiveness of their instructional strategies, as well as any needed modifications, adaptations, or accommodations that student may need to achieve instructional outcomes.

References

Aspy, R. and Grossman, B. (n.d.).Document3What is the ziggurat model? Reinforcement. Retrieved August 2, 2007, from http://texasautism.com.

Brown, K. E. and Mirenda, P. (2006) Contingency mapping: Use of a novel visual support strategy as an adjunct to functional equivalence training. *Journal of Positive Behavior Interventions*, 8(3) pp. 155 - 164.

Dalrymple, N. J. (1995). Environmental Supports to Develop Flexibility and Independence. In K.A. Quill (Ed.), *Teaching children with autism: Strategies to enhance communication and socialization.* New York: Delmar Publishers Inc.

Dawson, G., & Osterling, J. (1997). Early intervention in autism. In M. Guralnick (Ed.), *The effectiveness of early intervention: Second generation research* (pp. 301-326). Baltimore, MD: Paul H. Brookes.

Downing, J. E., Morrison, A. P., & Berecin-Rascon, M. A. (1996). Including elementary school students with autism and intellectual impairments in their typical classrooms: Process and Outcomes. *Developmental Disabilities Bulletin, 24*, 20-45.

Durrand, V., Crimmins, D., Caulfield, M & Taylor, J. (1989). Reinforcer assessment I: Using problem behaviors to select reinforcers. *Journal of the Association for Persons with Severe Handicaps*, 14, 113 - 126.

Earles, T., Carlson, J., & Bock, S. (1998) Instructional strategies to facilitate successful learning outcomes for student with autism. In Simpson, R. L. & Myles, B. S. (Eds.), *In Educating children and youth with autim: Strategies for effective practice.* Austin: PRO-ED.

Faherty, C., & Hearsey, K. (1996). *Visually structured tasks: Independent activities for students with autism and other visual learners.* Chapel Hill, NC: Division TEACCH.

Hurth, J., Shaw, E., Izeman, S., Whaley, K., & Rogers, S. (1999). Areas of Agreement about Effective Practices among Programs Serving Young Children with Autism Spectrum Disorders. *Infants and Young Children*, *12*(2), 17-26.

Iovannone, Dunlap, Huber, & Kincaid, (2003). Effective educational practices for students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 18,* 150-166.

National Research Council. (2001). *Educating children with autism.* Committee on Educational Intervention for Children with Autism. In C. Lord and J.P. McGee (Eds.). Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

Prizant, B., Wetherby, A., Rubin, E., Rydell, P., Laurent, A. & Quinn, J. (2003). The SCERTS® model. Special issue of the *Jenison Autism Journal*.

Schopler, E., Mesibov, G., & Hearsey, K. (1995). Structured teaching in the TEACCH system. In E. Schopler & G. Mesibov (Eds.), *Learning and Cognition in Autism.* New York: Plenum Press.

Simpson, R. L., deBoer-Ott, S. R., Griswold, D.E., Myles, B. S., Byrd, S. E., Ganz, J. B., Cook, K. T., Otten, K. L., Ben-Arieh, J., Kline, S. A., & Adams, L. G. (2005). *Autism spectrum disorders: Interventions and treatments for children and youth.* Thousand Oaks, CA: Corwin Press.

Simpson, R. (2005). Evidence-based practices and students with autism spectrum disorders. *Focus on Autism and other Developmental Disabilities* 20(3),141-149.

Wood, M. M., Davis, K.R., Swindle, F.L., & Quirk, C. (1996). Developmental therapy-developmental teaching: *Fostering social-emotional competence in troubled children and youth* (3rd ed.). Austin, TX: Pro-Ed.

CHAPTER SEVEN

INTERVENTIONS

The following evidence-based practices have been reviewed and included in a number of meta-analysis studies relied upon as this document was developed (National Research Council, 2001; Simpson, deBoer-Ott, Griswold, Smith-Myles, Byrd, Ganz, Tapscott-Cook, Otten, Ben-Arieh, Kline, and Garret-Adams, 2005). The intervention models included are listed in alphabetical order, and inclusion in this document is not to be construed as an endorsement of any particular intervention model. There is no one instructional method that ensures success for all students who have ASD, so interventions may be used singularly or in combination within a student's program. Interventions should not be haphazard, however, and teams should consider utilizing a comprehensive intervention planning system, such as the Ziggurat Model. (See Appendix A for website.) The individualized needs of students with ASD generally call for a tailored approach that draws upon proven techniques from multiple interventions. The information presented here is intended to be a snapshot of some of the strategies and approaches a team may want to further explore in developing the appropriate educational program for a student with ASD.

- Applied Behavior Analysis (ABA)
- Assistive Technology
- Augmentative and Alternative Communication (AAC)
- Cognitive Behavioral Modification (CBM)
- Discrete Trial Training (DTT)
- Incidental Teaching
- Joint Action Routines (JARs)
- Learning Experiences: An Alternative Program for Preschoolers and Parents (LEAP)
- *Picture Exchange Communication System (PECS)*
- Pivotal Response Training (PRT)
- Sensory Integration Therapy
- *Social Communication Emotional Regulation Transactional Support Model (SCERTS)*
- *Social Stories*™
- *Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH*)

Applied Behavior Analysis (ABA)

Applied behavior analysis utilizes the principles of behavior modification in order to "…improve socially significant behavior to a meaningful degree and to demonstrate experimentally that the procedures were responsible for the improvement in behavior. (Cooper, Heron, & Heward, 1987, p. 14)." In other words, the systematic application of the instructional interventions paired with a reinforcement schedule was actually responsible for the behavior change (e.g., increase or decrease in frequency, duration, or intensity of the behavior). Accordingly, an educator (after conducting evaluations, forming a hypothesis, and collecting baseline results) applies an instructional strategy to change a student's behavior. After an established period of time, the educator reviews the data to determine whether or not the instructional interventions resulted in a positive behavior change. Applied behavior analysis can be used to teach students academic content, social interactions, and vocational and career exploration skills. Additionally, discrete trial teaching (see below in this section) can be used in combination with ABA to teach students with ASD.

Assistive Technology

As a device, assistive technology (AT) has been defined as, "…any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities" [20 U.S.C., 1401 (a) (25), Tech Act, 1988]. As a related service, assistive technology is defined as, "…any service that directly

assists an individual with a disability in the selection, acquisition, or use of an assistive technology device" (20 USC, 2201, Tech Act, 1988).

Assistive technology makes the general education curriculum, social experiences, and community environments accessible to the student with peers and others without disabilities. If the student uses AT as an accommodation during the course of instruction, he or she may use it as an accommodation when taking one of the statewide assessments as determined by the IEP team (Kansas Administrative Regulations, 2007(K.A.R. 91-40-1 (c) (d) (ccc)).

Augmentative and alternative communication (AAC)

Augmentative and alternative communication (AAC) is considered assistive technology. The American Speech-Language-Hearing Association (ASHA, 2005) has defined AAC as, "…an area of research, clinical and educational practice. AAC involves attempts to study and, when necessary, compensate for temporary or permanent impairments, activity limitations, and participation restrictions of persons with severe disorders of speech-language production and/or comprehension, including spoken and written modes of communication" (ASHA, 2002, p. 1).

Augmentative-alternative communication systems are composed of four primary components (a) symbols, (b) aids, (c) strategies, and (d) techniques. Symbols refer to the way in which vocabulary and messages are represented (e.g., objects, photographs, line drawings, manual signs, etc.). Symbols may involve different modalities in that they may be graphic, auditory, gestural, or tactile. Augmentative and alternative communication systems may be unaided (e.g., gestures, signs, facial expressions, vocalizations) or aided (e.g., non-electronic communication symbols, electronic communication devices with voice output).

Strategies refer to the ways in which messages may be conveyed effectively and efficiently (ASHA, 2004; Beukelman & Mirenda, 2005). Embedded in strategies are techniques. Techniques used in ACC are the ways students access receptive and expressive communication. Strategies used with embedded techniques allow students access to communication whether it is for learning in school, participating in social interactions, or engaging in vocational tasks. Techniques refer to the way in which messages are accessed and transmitted. Students may directly select items by using a pointing gesture, optical pointer, light pointer, head stick, or eye gaze. Conversely, students may use indirect access for communication by selecting items, such as using a switch or scanning and E-Tran Board. When a student uses either a communication system that requires direct selection or indirect selection the symbols are displayed by the communication partner. The student may respond using an eye gaze, an auditory recognition (e.g., turning head toward source of sounded word), or an electronic device through switch activation (ASHA, 2004; Beukelman & Mirenda, 2005).

Cognitive Behavioral Management

Cognitive behavior management is a teaching and/or counseling method that uses both behavioral and cognitive elements for teaching skills to change behaviors. Other terms have also been used to refer to this method including cognitive behavior intervention, cognitive behavior therapy, cognitive behavior modification, or self-management. The core of Cognitive Behavior Management is modifying overt behavior by changing the way the student reacts to events. Ideally, Cognitive Behavioral Management will teach the student skills of self-management, self-reinforcement, self-evaluation, and self-reflection. Cognitive Behavior Management considers what a student thinks and feels about experiences and interactions with others. Students that learn self-reflective skills have a clearer understanding of social and behavioral events and are better able to use decision making skills for managing emotions.

Cognitive Behavior Management is a more useful for students who can verbalize thoughts and feelings. It is especially useful to teach students social behavioral skills. One benefit for using this behavior management strategy is shifting the responsibility of self-control and behavior monitoring from the teacher to the student. A drawback of using this behavior management strategy is the time and effort involved to teach the skills and evaluate progress from all team members in order to produce achievable

results. The overall Cognitive Behavior Management process may take considerable time and effort from all involved but may produce significant results. The strategies are heavily student centered and require reflection from the student and team members. Students learn different skills with the use of signals (i.e. reminder cards) of the appropriate behavior to be displayed. The student is taught how to self-collect data and measure his or her own progress. A highly desirable reinforcer is delivered once the student has reached the pre-established criterion.

Discrete Trial Teaching (DTT)

Discrete Trial Teaching sessions means the instructional task is delineated into a number of small trials (i.e. steps) that have distinct beginnings and endings in which the student participates. The DTT method is considerably different from more traditional teaching methods. Discrete Trial Teaching consists of a very small unit of information presented to the student in which the student's response is immediately expected.

The below described DDT instructional intervention mirrors the antecedent, behavior, and consequence (ABC) strategy that is a part of the above described ABA paradigm. Components include a discriminative stimulus (S^D), response (R), and consequence (S^R). The S^D is the instruction or question presented to the student (i.e. antecedent). The response is the student's reaction to the S^D (i.e. behavior). The S^R is the action of the educator to the student's response (i.e. consequence).

Like the ABC strategy that is used to collect and analyze a behavior that a student is demonstrating, the DTT instructional intervention is more specifically focused to analyze student learning. The DTT instructional intervention enables educators to evaluate the cause (i.e. antecedent) and effect (i.e. consequence) of student learning. Using the DTT data collection system assists the educator to track and analyze the effects of instruction and consequences. The focus of data analysis is to determine whether there is an increase or decrease in the student's behavior (S. de Boer, personal communication, March 12, 2008).

Incidental Teaching

Incidental teaching uses the principles of ABA which is the systematic application of instructional strategies, prompts, sequential skills, and reinforcers usually presented in mass trial sequences. Incidental teaching is unique from other ABA instructional strategies in that the educator follows the student's lead when he or she is selecting different academic activities. Incidental teaching takes advantage of naturally occurring "teachable moments" by staging, within the environment, reinforcing items with which the student would like to interact. As the student initiates interest in the activity, the educator systematically prompts or models more advanced responses for the student to perform while reinforcing the desired responses. This instructional strategy purports to have greater student success with generalization of skills since these skills are taught and practiced in natural settings with naturally occurring reinforcers (e.g., once proficiency increases the tangible reinforcers are faded to more social reinforcers) (McGee, G. G., Krantz, P. J., & McClannahan, L. E. 1985).

The following five steps are systematically applied during incidental instructional sessions after the environment has been set up with motivating and reinforcing materials for the student.

(1) Observe the student (watch to see if he or she develops an interest in an activity).
(2) Engage the student by encouraging him or her to elaborate after their initial initiation.
(3) Provide praise to the student who initiates an activity.
(4) Provide support to the student to achieve the desired outcome.
(5) Provide the reinforcing activity while praising the student simultaneously.

Applying the above five steps, makes a more enjoyable learning experience for the student and the teacher. Additionally, this strategy is more likely to support social interactions between students and others (Charlop-Christy, M. H., & Carpenter, M. H. (2000).

Joint Action Routines (JARs)

Joint Action Routines (JARs) provide an opportunity to practice communication skills during a group activity. The activity is designed to be repeated over time and focuses on the process of communication skills use rather than the product of the activity (McClean & Synder-McClean, 1978).

JARs allow for participation on many different levels. Students with varying degrees of ability can participate at their skill level (Wetherby, 1992). Some may use words, others sign, pictures, Picture Exchange Communication System (PECS), or gestures.

Communication skills such as turn taking, requesting, commenting, asking for help, labeling objects, and attending to the group are practiced in a routine format (Loveland & Landry, 1986). The routine typically involves announcing the activity, "Let's make milkshakes!", setting up the activity (passing out materials, gathering equipment, preparation-getting out a blender, ice cream, milk, flavorings), doing the activity (sharing, taking turns-scooping ice cream, pressing a switch to activate the blender, opening/closing) typically with each participant doing a portion of the job. As the activity comes to an end, there is a wind down or closing to signal the end of the activity ("We're almost done, does anyone want more?") Next there may be a chance to enjoy or discuss what took place. Participants may show each other their product and talk about what each person did. The routine ends with cleaning up and putting items away.

Routines or activities should be based on the child's interests, developmental needs, and be age appropriate. They may range from seasonal activities (filling a bird feeder), arts and crafts (making potpourri), food preparation (making cookies) to vocational activities (packaging materials.) The possibilities are endless; students learn to generalize skills mastered in one routine, such as using a picture to request an action or "open this" during cooking, to a new routine.

Joint Action Routines provide an opportunity to practice skills such as topic maintenance, eye contact, attending to the relevant stimulus, and choice making in a fun and motivating context (Carpenter & Tomasello, 2000). The routine facilitator should provide the least amount of assistance necessary to gain a response and wait for a response to occur rather than prompting. For example, rather than asking each individual, "Do you want a cup?" the facilitator might announce to the group, "I have cups" and wait to see if a request is made.

Another advantage of the use of JARs is that once a basic routine format is mastered, parents may wish to use it at home, or paraprofessionals may lead a group. It is wise to provide a simple script of the activity so that all steps are remembered and opportunities for communication skill use are listed. It is important to maintain materials in an organized manner. When beginning, teachers are more likely to experience success if they maintain control of materials in a container and then move to allowing more freedom of access.

There are many ways to organize JARs. Activities may be grouped around a theme, instructional concept, time of day, etc. It is critical to remember to practice the routine for several weeks and to even recycle and repeat previously learned routines.

Learning Experiences Alternative Program (LEAP)

LEAP is an early childhood intervention methodology that focuses on the social development of young children with ASD, and is designed to take place in an inclusive setting. According to Strain and Cordisco (1993), the goals of the LEAP Program are reflected in the guiding principles that have shaped the program's philosophy since its inception. These principles include the beliefs that:

A. All children (i.e., both children with and without disabilities) can benefit from integrated childhood environments.
B. Young children with Autism benefit most from early intervention when intervention efforts are conducted across school, home and community environments.
C. Young children with Autism make the greatest gains from early intervention when parents and professionals work together as partners and are equal members of the instructional team.
D. Young children with Autism can learn many important skills (e.g. social skills, language skills, appropriate behavior) from typical same-age peers.
E. Young children with Autism benefit most from early intervention when intervention efforts are planned, systematic and individualized.
F. Both children with and without disabilities benefit from curricular activities that reflect developmentally appropriate practices.

Simpson et al. (2005) summarize that LEAP is an integrated preschool program that utilizes peer mediation, a structured curriculum, and data-driven educational programming that is effective for students with and without disabilities and achieves improved language, behavior, social interactions, and functional skills which are maintained over time. In *Educating Children with Autism* the LEAP program was noted as only one of four programs that adequately addressed the issue of fidelity of intervention, thus substantiating its research base (National Research Council, 2001).

Picture Exchange Communication System (PECS)

Frost and Bondy (1994) developed *PECS* specifically for students with autism who had difficulty developing language and expressing their wants and needs. The picture exchange communication system promotes students' spontaneous communicative initiations and responses using a picture exchange system. One of the advantages of *PECS* is that it does not require the prerequisite skills needed with other assistive communication models, such as the need for eye contact, pointing response, or imitation skills. Instead, the use of *PECS* capitalizes on the student's strong visual skills and uses the principles of applied behavior analysis, including errorless training procedures, to promote success.

PECS teaches the student to give a peer, family member, or educator a picture or a set of pictures that describe what the student wants to communicate. The *PECS* process starts using one word (i.e. a picture representing the word) for the student to request an object by giving the picture of the object of what the students wants to the communicative partner. As the student's skill proficiency increases, the student requests what he or she wants using a sequence of pictures on a sentence strip (ex: "I want" + "blue" + "ball") and handing this to his or her communicative partner. During the final stage of instruction the student is taught to use the sentence strips to answer questions, draw attention to an event, and/or comment about changes in the environment. Expressive verbal communication is paired and reinforced by the communicative partner. Pairing the words verbally with the pictures has resulted in many students increasing their production of spontaneous verbal communication (Frost & Bondy, 2002).

Pivotal Response Training (PRT)

Pivotal Response Training began as a behavioral intervention training program primarily used by parents. The original program has slowly evolved to a more naturalistic approach that focuses on identifying and changing pivotal skills that can lead to improvements in a number of areas simultaneously, particularly communication, social skills and disruptive behavior. The emphasis of PRT is recognizing and responding to the students' preferences and initiations in natural contexts across a variety of inclusive settings (Lord & McGee, 2001). It is easily embedded in academic, functional, and vocational and career curriculum content areas (Simpson, deBoer-Ott, Griswold, Myles, Byrd, Ganz, Otten, Ben-Arieh, Kline, & Adams, 2005). Koegel, Schreffirnan, Good, Cerniglia, Murphy, and Koegel (1989) developed guidelines in conjunction with a training manual on procedures to follow when using the PRT approach with students who have ASD. The two pivotal skills addressed in the original manual are the lack of motivation, and responses to multiple cues or "stimulus over-selectivity."

Sensory Integration Therapy

Sensory integration and sensory processing are terms taken from Sensory Integration Therapy that refer to the way the nervous system (i.e. brain) receives information from seven senses and processes the input from one or a combination of these senses into a response. The seven senses that are constantly sending information to be processed by the brain include:

- tactile,
- vestibular,
- proprioceptive,
- visual,
- auditory,
- olfactory, and
- gustatory.

Each of the individual sensory systems has receptors (i.e. specialized cells) throughout the body that are the starting points for delivering messages to the brain. Some of these receptors are located in specific

areas of the body [i.e. gustatory (mouth); olfactory (nose); visual (eyes); auditory (ears); and vestibular (inner ear)]. The other receptors are spread throughout the entire body [i.e. tactile (skin); and proprioceptive (muscles and joints)]. The location of these sensory receptors relates to the functions for each of the systems (Bundy, Lane, & Murray, 2002) (Ayres, 1979) (Ayres, 2005) (Miller, 2006).

Efficient processing of sensory information allows students to organize (i.e. integrate) this information so the student can respond in an adaptive manner within his or her environments. When the processing of information becomes inefficient, the student with ASD cannot organize the information that most likely will result in a range of repetitive, idiosyncratic, or inappropriate behaviors. At times, these inappropriate displays of behavior will interfere with the student's learning unless the environmental input changes, the timing of the activity changes, or other physical features are adapted that will increase appropriate behaviors. Students experiencing inefficient sensory information may be referred to as hyper or over-responsive (e.g., excitability), or hypo or under-responsive (i.e. shuts down). Those students who have difficulty in regulating their behavior in response to inefficient sensory input benefit from sensory integration therapy (Miller, 2006) (Dunn, 2008).

There are several assessment tools that provide information about the student's sensory processing. *The Sensory Profile* (Dunn, 1999), *The Sensory Profile School Companion* (Dunn, 2006), and *The Sensory Processing Measure* (Miller-Kuhaneck, Henry, Glennon, Parham, & Ecker, 2007) are assessments that incorporate both home and classroom observations and ratings. These assessment designs allow for a comparison of student behaviors across environments. The results of these assessments will help the IEP team members to determine appropriate adaptations, environmental changes, and embedded sensory processing strategies to use for academic, functional, recreational, and vocational activities.

Social Communication Emotional Regulation Transactional Support Model (SCERTS)

The SCERTS Model is a comprehensive educational approach that uses a transdisciplinary framework addressing the social, communication, and emotional health issues that often are faced by children with ASD. This model emphasizes goals and strategies for enhancing social communication, emotional regulation, and transactional supports (Prizant, Wetherby, Rubin, Laurent, & Rydell, 2006).

The SCERTS Model builds a foundation by teaching students with ASD functional skills in everyday activities across settings in which the students participate. *The SCERTS Model* provides a framework where practices from other approaches may be integrated into instructional sequences and routine activities. This model pays particular attention to parent-professional collaboration and careful coordination across all settings and partners (Prizant, et al., 2006).

Social Stories™

Social Stories™ is a method to help students understand appropriate social behavior. This strategy helps students build social cognition by reviewing how students should act in a given situation, why the students' behaviors are acceptable, and how the students' behaviors will affect others. It may help the individual recognize social cues and assist them in learning about the perceptions of others. Gray (2003) reports that using positive language while writing stories affirms students' appropriate social behaviors. Pictures paired with written words are used when developing stories. After the stories are created, they are read aloud to the students by the educator to reinforce the use of the behaviors before participating in that activity. Upon return from the activity, *Social Stories™* are reviewed again. Students will determine if the behaviors in the stories occurred, what effect they had on others in the activity, and if necessary, what the students could have responded differently in order to achieve positive outcomes.

Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH)

Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) was developed by Dr. Eric Schopler in the early 1970's, while he was at the University of North Carolina, Chapel Hill. This structured teaching program was designed around the fundamental strengths and deficits of autism that impact learning and social interaction. Providing meaning and

understanding within an environment, facilitates the security and familiarity that lead to feelings of calm and comfort. Eliminating irrelevant stimuli, focusing attention on relevant information, makes learning possible.

There are four basic components used in *TEACCH* programs including (a) physical structure of the environment, (b) individual schedule systems, (c) visual work systems, and (d) visual structure of tasks. The instructional strategies used in the *TEACCH* program can be applied across ages and levels of cognitive and social functioning, can be imbedded in any environment or setting to support independence and meaningful inclusion, and can be taught to peers, caregivers, teachers, and employers. As the students demonstrate skill mastery, they are taught to generalize those skills to other settings through the use of visual cues (Schopler, Mesibov, & Hearsey, 1995).

References

American Speech-Language-Hearing Association. (2002). *Augmentative and Alternative Communication: Knowledge and Skills for Service Delivery* [Knowledge and Skills]. Available from www.asha.org/policy.

American Speech-Language-Hearing Association. (2004). *Roles and Responsibilities of Speech-Language Pathologists with respect to Augmentative and Alternative Communication: Technical Report* [Technical Report]. Available from www.asha.org/policy

American Speech-Language-Hearing Association (2005). Roles and responsibilities of speech-language pathologists with respect to augmentative and alternative communication: Technical report. *ASHA Supplement, 24*, 1-17.

Ayres, A. J. (1979). *Sensory integration and the child*. Los Angeles: Western Psychological Services.

Ayres, A. J. (2005). *Sensory integration and the child, 25th anniversary edition*. Los Angeles: Western Psychological Services.

Beukelman, D., & Mirenda, P. (2005). *Augmentative and alternative communication: Management of severe communication disorders in children and adults.* Baltimore, MD: Paul H. Brookes.

Bundy, A. C., Lane, S. J., & Murray, E. A. (2002). *Sensory integration: Theory and practice (2nd ed.).* Philadelphia: F. A. Davis.

Carpenter, M., & Tomasello, M. (2000). Joint attention, cultural learning, and language acquisition. In Wetherby, A. M. &Prizant, B. M. (Eds.), *Autism spectrum disorders* (pp. 31-54). Baltimore, MD: Brookes

Charlop-Christy, M. H. & Carpenter, M. H. (2000). Modified incidental teaching sessions: A procedure for parents to increase spontaneous speech in their children with autism. *Journal of Positive Behavior Interventions,* 2(2)m 98-112.

Cooper, J.O., Heron, T. E., & Heward, W. L. (1987). *Applied behavior analysis.* Upper Saddle River, NJ: Prentice-Hall, Inc.

Dunn, W. (1999). *Sensory profile: User's manual*. San Antonio, TX: The Psychological Corporation.

Dunn, W. (2006[a]). *Sensory profile: Supplement.* San Antonio, TX: The Psychological Corporation.

Dunn, W. (2006[b]). *Sensory profile: School companion.* San Antonio, TX: The Psychological Corporation.

Dunn, W. (2008). Sensory processing: Identifying patterns and support strategies. In Buron, K. D. & Wolfberg, (Eds), *Learners on the autism spectrum: Preparing highly qualified educators* (pp139-159). Shawnee Mission, KS: Autism Asperger Publishing Co.

Frost, L. & Bondy, A. (2002). *The picture exchange communication system: Training manual.* Newark, DE: Pyramid Educational Products, Inc.

Gray, C. (2003). *Social Stories* (TM) 10.0. The Gray Center, Jenison, Michigan.

Kansas Administrative Regulations. (2007). 91-40-4 (c).

Kansas Administrative Regulations. (2007). 91-40-4 (d).

Kansas Administrative Regulations. (2007). 91-40-4 (ccc).

Koegel, R. L., Schreffirnan, L., Good, A., Cerniglia, L., Murphy, C., & Koegel, L. K. (1989) *How to teach pivotal behaviors to children with autism: A training manual*. Retrieved December 11, 2007 from, http://www.users.qwest.net/~tbharris/prt.htm

Lord, C., & McGee, J. P. (Eds.).(2001). Educating children with autism. *National Academy Press*. Retrieved October 24, 2008 from, http://nap.edu/books/0309072697/html

Loveland, K. A. & Landry, S. H. (1986). Joint attention and language in autism and developmental language delay. *JADD, 16,* 335-349.

McClean, J. & Snyder-McClean, L. (1978). *A transactional approach to early language training: Derivation of a model system.* Columbus, OH: Charles Merrill Publishing.

McGee, G. G., Krantz, P.J., & McClannahan, L. E. (1985). The facilitative effects of incidental teaching on preposition use by autistic children. *Journal of Applied Behavior Analysis, 18*, 17-31.

Miller-Kuhaneck, H., Henry, D. A., Glennon, T. J., Parham, L. D., & Ecker, C. (2007). *Sensory processing measure: Home, main classroom, and school environments*. Los Angeles, CA: Western Psychological Services.

Miller, L. J. (2006). *Sensational kids: Hope and help for children with sensory processing disorder (SPD).* New York: G. P. Putnam & Sons.

National Early Childhood Technical Assistance Center. (n.d.). *Elements of effective programs.* Retrieved January 14, 2008 from, http://www.nectac.org/topics/Autism/effecprog.asp

National Research Council. (2001). *Educating children with autism.* Committee on Educational Intervention for Children with Autism. In C. Lord and J.P. McGee (Eds.). Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

No Child Left Behind Act of 2001, Pub. L. No. 107-110, 1425 Stat. 115 (2002).

Prizant, B., Wetherby, A., Rubin, E., Laurent, A., & Rydell, P. (2006). *The SCERTS model: A comprehensive education approach for children with autism spectrum disorders.* Baltimore, MA: Paul H. Brookes Publishing Co., Inc.

Procedure Manual for Infant Toddler Services in Kansas. 2002. Kansas Department of Health and Environment

Public Law 100-407 (1998). *Technology-Related Assistance for Individuals with Disabilities Act of 1988.* Washington D.C.: U.S. Congress.

Quinn, C., Swaggart, B. L., & Myles, B. S. (1994). Implementing a cognitive behavior management programs for persons with autism: Guidelines for practitioners. *Focus on Autistic Behavior, 9*, 1-13.

Schopler, E., Mesibov, G., & Hearsey, K. (1995). Structured teaching in the TEACCH system. In E. Schopler & G. Mesibov (Eds.), *Learning and Cognition in Autism.* New York: Plenum Press.

Simpson, R. L., deBoer-Ott, S. R., Griswold, D.E., Myles, B. S., Byrd, S. E., Ganz, J. B., Cook, K. T., Otten, K. L., Ben-Arieh, J., Kline, S. A., & Adams, L. G. (2005). *Autism spectrum disorders: Interventions and treatments for children and youth.* Thousand Oaks, CA: Corwin Press.

Simpson, R. (2005). Evidence-based practices and students with autism spectrum disorders. *Focus on Autism and other Developmental Disabilities* 20(3),141-149.

Strain, P. S., & Cordisco, L. (1993). The LEAP preschool model: Description and outcomes. In S. Harris & J. Handelman (Eds.). *Preschool education programs for children with autism* (pp.224-244). Austin, TX: PRO-ED

Tupper, L. C., & Klosterman-Miesner, K.E. (1995). *School hardening: Sensory integration strategies for class and home.* Tucson, AZ: Therapy Skill Builders.

Wetherby, A. M. (1992). *Communication and language intervention for preschool children.* Chicago, IL: Riverside Publishing Company.

Appendix A

Websites

GENERAL AUTISM THROUGH ASPERGER DISORDER WEBSITE INFORMATION

Autism Society of America http://www.Autism-society.org
This Web site is the voice and resource of the Autism community. It contains information including, but not limited to, the following (1) research and programs, (2) Tips of the Day; (3) personal testimonies, (4) free downloads, and (5) other events that are occurring related to autism.

Center for Disease Control (CDC) http://www.cdc.gov
Working with states and other partners, CDC provides a system of health surveillance to monitor and prevent disease outbreaks (including bioterrorism), implement disease prevention strategies, and maintain national health statistics. The Center for Disease Control also guards against international disease transmission, with personnel stationed in more than 25 foreign countries.

Dan Marino Child Nett http://www.childnett.tv
A first-of-its-kind internet web channel dedicated to autism and other neurological disorders. Videos of stories, communication ideas, and helpful topics are just a few of a large and growing library (available 24/7) sponsored by the Dan Marino Foundation. The foundation was the idea of Dan and Claire Marino's whose son has autism. Additionally, there is the Marino Autism Research Institute that is housed at the University of Miami and Vanderbilt University focusing on genetic research.

Medline Plus http://www.nlm.nih.gov/medlineplus/spanish/Autism.html
La información del autismo en español. Este Web site provee de descripciones del characterisitics común de niños autismo. Se describen otros desórdenes que bajan dentro del espectro también .

Online Asperger's Syndrome Information and Support http://www.udel.edu/bkirby/asperger/
This Web site was designed by parents for family support about issues of Asperger Syndrome. It contains a wealth of resources from current news to summer camps. It even has a Kid's Corner.

Tony Attwood http://www.tonyattwood.com.au
Tony Attwood is a well known authority on Asperger's Syndrome. He has had years of experience as a clinical psychologist, researcher, and university professor with an emphasis on individuals who have Asperger Disorder. This Web site contains resources, information about his presentation schedule, messages and issues related to Asperger's Syndrome, and papers he has written on related topics.

TRAINING AND SPECIFIC TECHNIQUES FOR SERVICES

Autism Treatment Network http://www.Autismtreatmentnetwork.org
The Autism Treatment Network (ATN) is a network of treatment and research centers dedicated to improving medical care for children and adolescents with autism. The Autism Treatment Network was modeled after the Cystic Fibrosis Network which includes a large network of Clinical Care Centers offering comprehensive diagnosis, treatment, care and counseling, and research centers that engage in projects to advance understanding of the disorder, develop new treatments, and find a cure.

Behavior Analysis http://www.behavioranalysis.com
This Web site assists individuals in locating and publicizing training opportunities in the field of Behavior Analysis, Education, and Human Services. Links to Applied Behavior Analysis affiliates are provided.

Cure Autism Now http://www.canfoundation.org
This Web site originated from a nonprofit organization of parents, clinicians, and scientists dedicated to finding effective biological treatments, prevention, and a cure for autism and related disorders.

Geneva Centre for Autism http://www.Autism.net

This Web site is from a center located in Toronto, Canada. The Geneva Centre for Autism provides training on developing and teaching effective techniques for individuals with autism and pervasive developmental disorders. It also provides services for people affected by Autism Spectrum Disorders.

The Ziggurat Group http://www.texasautism.com

This Web site has information about the Ziggurat Model, a system for designing comprehensive interventions for individuals with autism disorders. The site also details services and resources provided by the Ziggurat Group professionals, Ruth Aspy, Ph.D., and Barry G. Grossman, Ph.D.

The Interactive Collaborative Autism Network (ICAN) http://www.Autismnetwork.org

This Web site is for anyone who lives with, teaches, or otherwise supports children and youth with Autism Spectrum Disorders (ASD), including parents, teachers, and individuals with ASD. No background knowledge about ASD is necessary to use the site.

Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH) http://www.teacch.com

The University of North Carolina at Chapel Hill has an educational approach for individuals with autism to function meaningfully and independently in their naturally occurring environments. Additional links to a variety of resources about strategies and autism are provided.

GENERAL RESOURCES WITH SUPPORT SERVICES INFORMATION

American Speech, Language, and Hearing Association (ASHA) http://www.asha.org

The mission of the ASHA is to promote the interests of and provide the highest quality research for professionals in audiology, speech-language pathology, and speech and hearing science. It is has a strong advocacy organization for individuals with communication disabilities.

Assistive Technology for Kansans (ATK) http://www.atk.ku.edu/

The Assistive Technology for Kansans Web site is an online source for information about the ATK Project, its activities, resources, and links to other partners and programs with similar objectives. This site also contains a loan library of various AT equipment and devices to try out on loan.

Autism Institute on Peer Relations and Play http://www.Autisminstitute.com

This Web site offers a guide to families, practitioners, researchers and others seeking to address the unique and complex challenges children with autism experience in peer relations and play. Ideas for creating social communicative interactions between children and adults are available on this site.

CAST http://www.cast.org

CAST is a nonprofit organization that works to expand learning opportunities for all individuals, especially those with disabilities, through the research and development of innovative, technology-based educational resources and strategies.

Cindy's Autistic Support http://www.angelfire.co /pa5/as/

This Web site is by a teacher of students with autism. She shares many experiences and strategies that she has used for instructing students with whom she has worked in the past.

Council for Exceptional Children http://www.cec.sped.org

This is an international organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the students who are gifted. This Web site includes resources on topics of Autistic Spectrum Disorders and Pervasive Developmental Disorders, as well as divisions that target other disability categories.

Do 2 Learn http://www.do2learn.com

This Web site provides games, songs, communication cards, print resources, and information for students with disabilities. It also provides ideas for teachers in adapting lesson plans or provide co-operative learning opportunities in their classrooms.

Families for Early Autism Treatment (FEAT) http://www.feat.org

FEAT is a nonprofit organization consisting of parents, educators, and other professionals dedicated to providing world-class education, advocacy and support for the Northern California autism community. This site provides information to parents of children diagnosed with Autism Spectrum Disorders including autism, pervasive developmental disorder (PDD), and Asperger Syndrome for professionals and families. The site also includes up-to-date resources about topics related about autism.

Friends of Autistic People http://www.autisticadults.com

Friends of Autistic People is a parent support group dedicated to raising awareness of services and supported living arrangements needed for adults who are autistic. It contains links for public, private, and state organizations regarding support services, funding, assistance, and other resourceful information.

Functional Academic Curriculum for Exceptional Students (FACES)
http://www.esc12.net/faces/default.html

The primary purposes of the F.A.C.E.S. curriculum are to teach meaningful, age appropriate skills within school and non-school settings. It also provides suggestions on how to systematically evaluate students' progress within those settings.

Indiana Resource Center for Autism http://www.iidc.indiana.edu/irca/fmain1.html

The Indiana Resource Center for Autism produces and disseminates information for professionals and families on Autism Spectrum Disorders. Resources include newsletters, brochures, print, videotapes, and the web.

Infant-Toddler Networks: Part C in Kansas
http://www.kdheks.gov/its/download/network_brochure.pdf

This is a brochure of all the infant-toddler networks and Part C contact information for the state of Kansas. Most of the Part C infant-toddler networks are listed by county, unless otherwise specified.

Inclusive Network of Kansas (INKS) http://www2.ku.edu/~inks/

The Inclusive Network of Kansas is a collaborative of professionals and agencies interested in improving the skills of professionals to meet the learning needs of students who qualify for special education. It provides high quality professional development and access to a free peer-based technical assistance network.

Infinitec http://www.infinitec.org/

This Web site is a one stop resource guides gathered from a library of articles and information. Infinitec provides assistance about assistive technology including software, and hardware systems.

Kansas Disability and Behavioral Health Services Division
http://www.srskansas.org/hcp/css/Autism/AutismNew.htm

This Web site provides information about autism services provided through the Department of Social and Rehabilitation Services, including the Autism Waiver.

Kansas Instructional Support Network (KISN) http://www.KansasASD.com

This Web site provides information about the services KISN provides. It contains podcasts of leaders in the field of autism, a Social Narratives and Power Card bank, links to articles, and autism-related Web sites. A training calendar is available and online registration for the KISN Series Training.

Kansas Inservice Training System (KITS) http://www.kskits.org/

This Web site focuses on professional development for early childhood professionals and families. Workshop announcements, conferences, and library holdings are available through this site.

Local Education Agencies in Kansas
http://www.ksde.org/LinkClick.aspx?fileticket=TxYx%2fYpHTDA%3d&tabid=2070&mid=5328

This is a directory of all the local education agencies in Kansas. They are listed alphabetical order. Contact information is provided. (This site is updated at least on an annual basis.)

Mountain Plains Regional Resource Center (MMPRC) http://www.rrfcnetwork.org/mprrc

The Mountain Plains Regional Resource Center is one of six regional resource centers that is part of the Federal and Regional Resource Center Network (RRFC). It provides services to 50 States, the District of Columbia, the U.S. Trust Territories, and the schools of the Bureau of Indian Affairs (BIA). The MPRRC serves Arizona, the Bureau of Indian Education, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, South Dakota, Utah, and Wyoming.

National Association of State Directors of Special Education (NASDE) http://www.nasde.org

The Web site features information for all stakeholders who share the ideals of the NASDE's mission. The site contains access to policy issues, responses to federal and state governmental actions, and information that is relevant to the field of individuals with disabilities.

National Center on Secondary Education and Transition (NCSET) http://www.ncset.org

The National Center on Secondary Education and Transition coordinates national resources, offers technical assistance, and disseminates information related to secondary education and transition for youth with disabilities in order to create opportunities for youth to achieve successful futures. The National Center on Secondary Education and Transition is headquartered at the Institute on Community Integration at the University of Minnesota's College of Education and Human Development.

National Early Childhood Technical Assistance Center (NECTAC):
http://www.nectac.org/topics/Autism/effecprog.asp

This Web site is the home of the national early childhood technical assistance center supported by the U.S. Department of Education's Office of Special Education Programs. NECTAC provides a variety of technical assistance and support to improve service systems and outcomes for infants, toddlers, and preschool aged children with special needs and their families.

National Information Center for Children and Youth with Disabilities (NICHCY)
http://www.nichcy.org

This national Web site contains resources, publications, conferences, State resources, and IDEA information. The site provides step-by-step guidance to access information that is requested through a key word search. Additional state contact information is updated and available on a regular basis.

National Institute of Child Health and Human Development
http://www.nichd.nih.gov/Autism/Autism.cfm

The National Institute of Child Health and Human Development is a division of the National Institutes of Health (NIH). This is division is conducting research into various aspects of autism including its causes, prevalence, and treatments. There are links to public news releases, publications, research, and funding opportunities related to autism are provided.

National Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS)
http://www.pbis.org/main.htm

The OSEP-funded National Technical Assistance Center on Positive Behavior and Intervention Supports was established to address the behavioral and discipline systems needed for successful learning and social development of students. This Center provides capacity-building information and technical support about behavioral systems to assist states and districts in the design of effective school-wide interventions.

Online Asperger Syndrome Information and Support http://www.aspergersyndrome.org

This site was started by a parent of a child with Asperger Syndrome. It provides information on Asperger Syndrome. It contains links for support groups and other information related to Asperger Syndrome.

Supporting Program Outcomes and Teachers (Project SPOT)
http://www.greenbush.org/spot/index.htm

The priority of Project SPOT is to support local education agencies in building capacity to support and conduct systemic improvement activities within their districts. This Web site describes the technical assistance activities available through Project SPOT and contact information.

Project STAY http://www.projectstay.com

This Web site offers access to links and resources about children with autism. It also provides a forum for online questions. Data collection software also is offered to public schools on this Web site for grades Kindergarten through 12th grade in the state of Kansas.

Sibling Support Project http://www.siblingsupport.org

The Sibling Support Project is a national effort dedicated to the life-long concerns of brothers and sisters of people who have special health, developmental, or mental health concerns. Current and future resources for siblings are included in this Web site.

Speaking of Speech http://www.speakingofspeech.com

Speaking of Speech is an interactive forum for speech-language pathologists and teachers to improve communication skills in our schools by:

- exchanging ideas, techniques, and lessons that work;
- finding out about materials before they are purchased;
- seeking and giving advice on therapy and caseload management issues; and
- exploring a myriad of helpful resource links.

Special Education Resource Center (SERC) http://www.ctserc.org

The Special Education Resource Center is a nonprofit agency primarily funded by the Connecticut State Department of Education. This resources center provides professional development, information, and dissemination in the latest research to educators, service providers, and families throughout the state, as well as job-embedded technical assistance and training within schools, programs, and school districts.

Sped*Net http://www.spednet.org

Special Education Network of New Canaan, Ltd. (SPED*NET) is a network of parents and professionals who are interested in special education and Section 504 issues. SPED*NET conducts seminars during the school year, maintains a LISTSERV, has a variety of books and videos to loan to members, and provides handouts, power point presentations, and additional information.

TASH http://www.tash.org/index.htm

Once formerly known as The Association for Persons with Severe Handicaps, this international association of people with disabilities, their family members, other advocates, and professionals are strong advocates and researchers for a society in which all people from all aspects of society is the norm. TASH has a variety of membership options. It also has a peer-reviewed journal that is disseminated once a quarter, monthly newsletters, and e-news. There are individual state chapters of TASH in over 40 states.

teAchnology http://www.teach-nology.com/web_tools/rubrics/behavior/

This Web site provides free and easy to use resources for teachers dedicated to improving the education of today's generation of students. Rubrics, teaching tools, and techniques are included on this Web site.

The Gray Center http://www.thegraycenter.com

This Web site is a resource to parents, professionals, and those individuals with ASD. The site is especially excited about the new learning and support opportunities that it has to offer. Listed on this Web site is a variety of programs and resources available to promote social understanding, and to provide information and support to those who need it.

The IDEA Partnership http://www.ideapartnership.org

The IDEA Partnership is dedicated to improving outcomes for students and youth with disabilities by joining state agencies and stakeholders through collaborative work experiences and learning. Additional resource information is provided relating the education of students with Autism Spectrum Disorder, their teachers, and their families.

TinSnips http://www.tinsnips.org

TinSnips is a special education resource that has a variety of specialized teaching tools, techniques, worksheets, and activities for teachers of students who have ASD and related developmental disabilities. Many of these activities may be appropriate for Pre-K and kindergarten age children.

U.S. Department of Education: Office of Special Education and Rehabilitative Services
http://www.ed.gov/offices/OSERS

This Web site provides information on public education issues, IDEA, legislation, and links to other special education resources.

Wrightslaw http://www.wrightslaw.com

Parents, educators, advocates, and attorneys access Wrightslaw for accurate and reliable information about special education law, education law, and advocacy for children with disabilities. This site also contains the most current court cases regarding the education of students with disabilities.

Yale New Haven Medical Center http://www.info.med.yale.edu/

Go to the “search” button and type in autism, Asperger Syndrome, or any other medical topic for listings and links to thousands of additional items related to the topic.

PUBLISHERS AND MATERIALS

Autism Asperger’s Publishing Company http://ww.asperger.net

Autism Asperger’s Publishing Company is an independent publisher specializing in books on Autism Spectrum Disorders. Publications are based on the latest research on autism, Asperger Syndrome, and other pervasive developmental disorders. This site includes books that provide practical solutions for individuals with an Autism Spectrum Disorder for parents and educators.

Behavior Analysts, Inc. http://www.behavioranalysts.com/

Behavior Analysts Incorporated shares highly successful methods for diagnosing language deficits in children and adults. The Web site emphasizes teaching language through a line of books and videos. There are Quick Tips about applying behavioral interventions.

Centering on Children, Inc. http://www.shoeboxtasks.com

There are innovative learning materials for children and adults with disabilities contained on this Web site. Directions for using different strategies also are provided.

Different Roads to Learning http://www.difflearn.com

Their product line contains over 250 products, including books, flashcards, and videos, along with other materials critical to ABA and verbal behavior programs. Descriptions of the resources and pricing information also is included.

Future Horizons http://www.futurehorizons-Autism.com

Future Horizons provides books, conferences, and other valuable information on autism, Asperger's Syndrome, and pervasive developmental disorders. The Web site is easy to navigate with distinctive links to the types of resources that are available for purchase.

Jessica Kingsley http://www.jkp.com

This Web site lists accessible, professional and academic books in the social and behavioral sciences. These resources are useful to teachers and service providers who work with children and youth with disabilities.

LinguiSystems http://www.linguisystems.com

LinguiSystems' mission has been to provide innovative, effective, affordable, and therapeutically sound materials for speech-language pathologists, teachers of students with learning disabilities, special education teachers, reading specialists, general education classroom teachers, and their students. This Web site primarily has resources for communication; verbal and nonverbal.

Michelle G. Winner's Center for Social Thinking & Think Social Publishing, Inc.
http://www.socialthinking.com

Michelle Garcia Winner, speech language pathologist and specialist for persons with social thinking challenges, is internationally recognized as an energetic and enthusiastic workshop presenter and author from San Jose, California. She has her own private practice. Michelle and her team specialize in developing further understanding and educational strategies for helping persons with social thinking and social communicative challenges.

Natural Learning Concepts http://www.nlconcepts.com

This Web site contains communication tools for teaching children with autism, Asperger Disorder, PDD-NOS, and those students with speech and language delays. Descriptions of the communication tools and pricing information also is included.

News-2-You http://www.news-2-you.com

This Web site is a weekly, online newspaper for beginning readers and individuals with disabilities. There are costs to subscribe to this newspaper.

Paul H. Brookes Publishing http://www.brookespublishing.com

This company has a long history of publishing books, evaluations, and resources for educators, related services staff members, administrators, and university students who are specializing in education. Many of their materials also are available in Spanish.

PCI Education http://www.pcicatalog.com

PCI products help teachers enable students to develop skills in all major curriculum areas within the context of real world applications. There is an online catalog that describes products and materials listed on the Web site.

Pro Ed http://www.Proedinc.com

PRO-ED is a leading publisher of standardized tests, books, curricular and therapy materials, and professional journals covering:

- speech, language, and hearing;
- psychology and counseling;
- special education;
- early childhood intervention; and
- occupational therapy and physical therapy.

Social Stories http://www.socialstories.com

Social Stories has Social Story Skill Books available for purchase to help with social situations that children with autism may experience. This Web site also is beginning a picture library for download. Currently, pictures of movie covers can be downloaded.

Super Duper, Incorporated http://www.superduperinc.com

This Web site has creative, colorful educational materials that parents and their children will learn and enjoy. Materials listed on this Web site are motivational because of their uniqueness and character design.

Tasks Galore http://www.tasksgalore.com

Tasks Galore Publishing Incorporated was created to provide parents and professionals with practical tools that will assist their children and students to become more independent in school and in society. These tools emphasize structured teaching methods and parent/professional collaboration.

Woodbine House http://www.woodbinehouse.com

This Web site contains books for parents, children, teachers, and professionals who live and work with children with and without disabilities. A catalog of resources is available by ordering online.

TRANSITION WEBSITES AND CONTACTS

Autism Alliance of Greater Kansas City
P.O. Box 45664, Kansas City, MO 64171
(816) 842-2452 Web site: http://www.Autismalliancekc.org
Web site: http://www.kcAutismservices.com

Autism Society of the Heartland
A Chapter of the Autism Society of America
Bill Robinson, President
P.O. Box 860984, Shawnee, KS 66286-0984
(913) 706-0042 Web site: http://www.Autismsocietyoftheheartland.org

Community Parent Resource Center
Dr. Jane Adams, Executive Director
Key for Networking, Inc. (CPRC)
211 SW 33rd Street, Topeka, KS 66612
(785) 233-8732 Web site: http://www.keys.org

Council on Developmental Disabilities
Dr. Jane Rhys, Executive Director
Kansas Council on Developmental Disabilities
Docking State Office Building, Room 141
915 S.W. Harrison Street, Topeka, KS 66612
(785) 296-2608 Web site: http://www.kcdd.org

Education Program Consultant for Transition Services
Wendy Blaauw
Special Education Services
Kansas State Department of Education
120 S.E. 10th Avenue, Topeka, KS 66612
(785) 296-7453 Web site: http://www.ksde.org

Kansas Commission on Disability Concerns
Martha Gabehart, Executive Director
Kansas Department of Commerce
1000 S.W. Jackson, Suite 100, Topeka, KS 66612
(800) 295-5232; (877) 340-5874 (TTY) Web site: http://www.kcdcinfo.com

Kansas State Coordinator for NCLB (No Child Left Behind)
Dr. Diane DeBacker, Deputy Commissioner of Education
Kansas State Department of Education
120 S.E. 10th Avenue, Topeka, KS 66612
(785) 296-2303 Web site: http://www.ksde.org

Kansas State Department of Education
Colleen Riley, Director
Special Education Services
Kansas State Department of Education
120 S.E. 10th Avenue, Topeka, KS 66612
(785) 291-3097 Web site: http://www.ksde.org

Kansas State Vocational Rehabilitation Agency
Dr. Michael Donnelly, Director
Kansas Rehabilitation Services
Department of Social and Rehabilitation Services
3640 S.W. Topeka Boulevard, Suite 150, Topeka, KS 66614
(785) 267-5301 Web site: http://www.srskansas.org/rehab/

Academic and Technical Education
Innovation and Improvement Team
Robin Harris, Assistant Director
Kansas State Department of Education
120 S.E. 10th Avenue, Topeka, KS 66612
(785) 296-3048 Web site: http://www.ksde.org

PARENT Training and Information Center (PTI)
Connie Zienkewicz, Executive Director
Families Together, Inc.
3033 W. Second, Suite 106, Wichita, KS 67203
(316) 945-7747; (877) 499-5369 (Kansas City)
(888) 815-6364 (Wichita); (800) 264-6343 (Topeka)
(888) 820-6364 (Garden City); (800) 499-9443 (Español) Web site: http://www.familiestogetherinc.org

Partners in Policymaking
Kim Strunk, Coordinator
Kansas Developmental Disabilities Council
Docking State Office Building, Room 141
915 S.W. Harrison Street, Topeka, KS 66612-1570
(785) 296-2608 Web site: http://www.kcdd.org

Programs for Children with Special Health Care Needs
Jamey Kendall, Director
Services for Children with Special Health Care Needs
Department of Health and Environment
1000 S.W. Jackson Street, Suite 220, Topeka, KS 66612
(785) 296-1316; (800) 332-6262 (in KS) Web site: http://www.makeadifferenceks.org

Programs for People with Developmental Disabilities
Margaret Zillinger, Director
Community Supports and Services Health Care Policy Division
Department of Social and Rehabilitation Services
Docking State Office Building
915 S.W. Harrison Street, 10th Floor, Topeka, KS 66612
(785) 296-3561 Web site: http://www.srskansas.org/hcp/cssindex.htm

Protection and Advocacy Agency/Client Assistance Program
Rocky Nichols, Executive Director
Disability Rights Center of Kansas
635 SW Harrison, Suite 100, Topeka, KS 66603
(785) 273-9661; (877) 776-1541 (In KS Only) Web site: http://www.drckansas.org

Regional ADA & IT Technical Assistance Center
Jim de Jong, Director
ADA and I.T. Center
Great Plains Disability and Business Technical Assistance Center
University of Missouri/Columbia
100 Corporate Lake Drive, Columbia, MO 65203
(573) 882-3600 (V/TTY); (800) 949-4232 (V/TTY) Web site: http://www.adaproject.org

State CHIP Program
(*health care for low-income uninsured children)*
Kansas HealthWave
P.O. Box 3599, Topeka, KS 66601
(800) 792-4884 Web site: http://www.kansashealthwave.org/

State Mediation System
Mark Ward, Coordinator
Kansas State Department of Education
Special Education Services Team
120 S.E. 10th Avenue, Topeka, KS 66612
(785) 296-5478 Web site: http://www.ksde.org

State Mental Health Agency
Steve Erikson, Mental Health Director
Health Care Policy Division-Mental Health
Department of Social and Rehabilitation Services
Docking State Office Building
915 S.W. Harrison Street, 10th Floor, Topeka, KS 66612-1570
(913) 296-7272 Web site: http://www.srskansas.org/hcp/MHmain.htm

SRS Mental Health
Rick Shults, Director
Department of Social and Rehabilitation Services
Docking State Office Building
915 S.W. Harrison Street, 10th Floor, Topeka, KS 66612
(785) 296-7272 Web site: http://www.srskansas.org/hcp/

Technology-Related Assistance
Dr. Sara Sack, Director
Assistive Technology for Kansans Project
2601 Gabriel Avenue
P.O. Box 738, Parsons, KS 67357
(620) 421-8367; (800) 526-3648 Web site: http://atk.ku.edu/

University Centers for Excellence in Developmental Disabilities
Dr. Michael Wehmeyer, Director
Kansas University Center on Developmental Disabilities
University of Kansas
1052 Robert Dole Human Development Center
1000 Sunnyside Avenue, Lawrence, KS 66045
(785) 864-4295; (785) 864-5051 (TTY) Web site: http://www.healthcare.uiowa.edu/cdd/index.asp

Appendix B

Review of Assessments

Diagnostic Instruments for Autism Spectrum Disorders

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Asperger Syndrome (and high-functioning autism) Diagnostic Interview (ASDI) (Gillberg et al., 2001)	6-55 yrs	Investigator-based interview	20 items for 6 areas (0=does not apply, 1=applies to some degree or very much) - Area 1: severe impairments in reciprocal social interaction (extreme egocentricity) - Area 2: all absorbing narrow interest pattern(s) - Area 3: imposition of routines, rituals and interests - Area 4: speech and language peculiarities - Area 5: non-verbal communication problems - Area 6: motor clumsiness	Total sample 20 (M=15, F=5; 13 diagnosed with AS or atypical autism, 7 normal comparison cases)	Minimal	20 min	Diagnosis (Preliminary diagnostic decisions)
Asperger Syndrome Diagnostic Scale (ASDS) (Myles, et al., 2001)	5-18 yrs	Parent/teacher/ caregiver Questionnaire	50 items - Cognitive - Maladaptive - Language - Social - Sensorimotor	Total sample n=115 with AS	Minimal	10-15 min	Screening
Australian Scale for Asperger Syndrome (ASAS) (Garnett & Attwood, 1995; Attwood & Barnett, 1998)	Primary school age 3-19 yrs	Parent Questionnaire	24 items for 5 subdomains and 5 items for 1 subdomain - Social and emotional abilities - Communication skills - Cognitive skills - Specific interests - Movement skills - Other characteristics	N/A (based on the literature review)	Minimal	15-20 min	Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Autism Behavior Checklist (ABC) (Krug et al., 1978; Krug, Atrick, Almond, 1980)	18 mos and older	Behavioral Checklist Clinician interview with anyone who knows the individual well	57 items 4th Subtest of the ASIEP, Behavior rating by parent or teacher - sensory behavior - social relating - repetitive behaviors - language and communication skills - social and adaptive skills	Not clearly provided (Four groups: Autistic (62 previously diagnosed autism)/ severely Mentally retarded/def or blind/ severly emotionally disturbed/ normal	Minimal	10-20 min	Screening
Autism Diagnostic Interview – Revised (ADI-R) (Lord, Storoschuk, Rutter, & Picles, 1993; Lord, Rutter, & LeCouter, 1994; Rutter, LeCouteur, & Lord, 2003)	Over 2yrs (MA)	Interview	93 items - Language and communications - Reciprocal social interactions - Restricted, repetitive, and stereotyped behaviors and interests	Total sample 94 (preschoolers with Autism=51, without Autism = 43) (Lord et al., 1993); Total sample for the revised study 50 preschoolers (with Autism = 25, without Autism meaning with MR or Language-impaired but = 25) (Lord et al., 1994)	Requires training	1.5-2.5 hrs	Diagnosis

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Autism Diagnostic Observation Schedule (ADOS) (Lord et al., 2000; Lord, Rutter, DiLavore, & Risi, 2001)	Toddlers to Adults (Over 2 yrs)	Semi-structured Interview (Clinician administered interactive play-based assessment	4 Modules based on expressive language - Module 1: not using phrase speech - Module 2: using phrase speech - Module 3: fluent children - Module 4: fluent adolescents and adults	Total sample 381 individuals who were referred to the clinic at the U of Chicago)	Requires training	30-40 min	Diagnosis
Autism Screening Instrument for Educational Planning second edition (ASIEP-2) (Krug, Arick, Almond, 1993)	18mos-49yrs	Observation	5 subtests - Sample of vocal behavior - Interaction - Rate of learning - Autism Behavior Checklist - Educational Assessment			varies	Screening
Autism Screening Questionnaire/Social Communication Questionnaire (ASQ/SCQ) (Berunment, Rutter, Lord, Pickles, & Bailey, 1999; Rutter, M., Bailey, A., & Lord, C. 2003)	Over 4 yrs	Parent Questionnaire	40 items - Reciprocal Social Interaction - Language & Communication - Stereotyped Patterns of behavior	200 (M=114, F=46; ASD=160, non-ASD diagnosis=40)	None	10-15 min	Screening
Autism-Spectrum Quotient (AQ) (Baron-Cohen, 2001)	Over 18 yrs	Self-report	50 items, from definitely agree to definitely disagree (four-scale), 5 subdomains - Social skills - Attention switching - Attention to detail - Communication - Imagination	Total sample 1,088 (AS=58, Control group=174, Univ. student group=840, Olympiad winners=16)	Minimal		Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Autism-Spectrum Quotient (AQ) -adolescent version (Baron-Cohen, et al., 2006)	9.8-15.4 yrs	Questionnaire for parents	50 items, from definitely agree to definitely disagree (four-scale), 5 subdomains - Social skills - Attention switching - Attention to detail - Communication - Imagination	Total sample 181 (AS=52,autism= 79,randomly selected=50)	Minimal		Screening
Behavior Rating Instrument for Autistic and Other Atypical Children (BRIAC) (Ruttenberg, Dratman, Fraknoi, & Wenar, 1966)	All ages		- Relationship with an adult - Communication - Drive for Mastery - Vocalization and Expressive Speech - Sound and Sound Reception - Social Responsiveness - Psychobiological Development				Screening
Behavioral Summarized Evaluation (BSE) (Barthelemy, Adrien, Garreau, Fermanian, Roux, Sauvage, and Lelord, 1990)	2-15 yrs	Professionals and paraprofessionals' questionnaire	20 items, four point scale	Total sample = 90 children with autism (M=56, F=34)		5-10 min	Screening ?
Checklist for Autism in Toddlers (CHAT) (Baron-Cohen, Allen, & Gillberg, 1992)	18 mos	Interview & Interactive	Total 14 items 9 items-questions asked to the parents 5 items-observations made by the primary health care worker	Total sample 16,235 (all children born in the South Thames Region of the UK)	Minimal	5-10 min	Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Checklist for Autistic Children (CLAC) (Makita & Umezu, 1973)	1-4.5 yrs		5-point scale 11 types of behavior: eating, elimination, sleep, daily living. play, interpersonal relationships, communication, manipulation of hands and fingers, autonomy and emotional expression				Screening
Childhood Asperger Syndrome Test (CAST) (Scott, et al., 2002)	4-11 yrs	Parent Questionnaire	37 items - Overall score	Total sample 50 (13 parents of children with AD or ASD, 37 patents of typical children)	Minimal		Screening
Childhood Autism Rating Scale (CARS) (Shopler & Reichler, 1971; Schopler, Reichler, DeVellis, & Daly, 1980; Schopler, Reichler, & Renner, 1988)	2 through adult	Behavioral Checklist	15 items (four-point scale) - Relating to people; Imitative behavior; Emotional response; Body use; Object use; Adaptation to change; Visual response; Listening response; Perceptive response; Fear and anxiety; Verbal communication; Non-verbal communication; Activity level; Level and consistency of intellective relations; General impressions	Total sample 537 (75% boys, 25% girls; 70% having IQs below 70, 11% having IQs above 85)	Minimal	5-10 min	Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Children's Social Behavior Questionnaire (CSBQ) (Luteijn, Jackson, Volkmar, & Minderaa, 1988; Luteijin, Luteijn et al., 2000; Hartman et al., 2006))	4-18 yrs	Parent Questionnaire	96 items, Three-point scale, 5 subscales - Scale 1: Acting out - Scale 2: Social Contact Problems - Scale 3: Social Insight Problems - Scale 4: Anxious/Rigid - Scale 5: Stereotypical Revised version 49 items, 6 item groups - Tuned: behavior/emotions not optimally tuned to the social situation - Social: reduced contact and social interact - Orientation: orientation problems in time, place, or activity - Understanding: difficulties in understanding social information - Stereotype: stereotyped behavior - Change: fear of and resistance to changes	Revised version: Total sample 3,407 (2,271 Children with various emotional, behavioral and developmental psychiatric problems including PDD-NOS, 904 Children with mental retardation, 232 typically developing children)`	Minimal	10-15 min	Screening
Communication and Symbolic Behavior Scales-Developmental Profile (CSBS-DP) (Wetherby & Prizant, 2001)	6-24 mos	Parent Checklist Follow-up Caregiver questionnaire Behavior Sample	24 items, 5-point scale 7 language factors - Emotion and use of eye gaze - Use of communication - Use of gestures - Use of sounds - Use of words - Understanding of words - Use of objects	Norm sample = 2,000	Minimal (Video available)	60-75 min	Screening
Developmental Behavior Checklist-Autism Screening Algorithm (DBC-ASA) (Brereton et al., 2002)	4-18 yrs	Parent questionnaire	17 items		Minimal	5-10 min	Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Diagnostic Interview for Social and Communication Disorders (DISCO) (Wing, Leekam, Libby, Gould, & Larcombe, 2002)	3-11 yrs	Semi-structured interview schedule	319 items - Infancy - Age of recognition - Developmental: Gross motor skills, Self-care, Communication, Social interaction, Imitation, Imagination, Skills (Visuo-spatial) - Other: untypical behavior not directly related to a specific developmental domain	Total sample: the parents of 82 children (50 school-aged children, 32 pre-school children; ASD=36, LD=17, Specific language disorder=14, Typical development=15	Requires training	3 hrs	Diagnosis
Early Screening of Autistic Traits (ESAT) (Buitelaar et al, ??)	14 mos		14 items				
Flinders Observation Schedule of Preverbal Autistic Characteristics (FOSPAC) (Young, 2002)	1.5-2 yrs						Screening
Ghuman-Folstein Screen for Social Interaction (SSI) (Ghuman et al., 1998)	2-5 yrs						Screening
Gilliam Asperger's Disorder Scale (GADS) (Gilliam, 2001)	3-22 yrs	Questionnaire for raters who have had at least 2 weeks of sustained contact with the individual being rated	32 items - Social interaction - Restricted patterns of behavior - Cognitive patterns - Pragmatic skills	Total sample with AS 371		5-10 min	Diagnosis

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Gilliam Autism Rating Scale (GARS) (Gilliam, 1995) Gilliam Autism Rating Scale-Second Edition (GARS-2) (Gilliam, 2006)	3-22 yrs	Behavioral Checklist	56 items (four-point scale) - Stereotyped behaviors - Communication - Social Interaction - Developmental Disturbances GARS-2 42 items, Three subscales - Stereotyped behaviors - Communication - Social interaction	Total sample 119 diagnosed with autism (F=19, M=100) Total sample with Autism 1,107	Minimal	5-10 min	Screening
High-functioning Autism Spectrum Screening Questionnaire (ASSQ) (Ehlers & Gillberg, 1993; Ehlers, Gillberg, & Wing, 1999)	6-17 yrs	Questionnaire for parents or teachers	27 items, 3-point scale - Overall score	Total sample 144 (110 children referred to a clinic setting for ASD, ADD/BD, LD; 34 children diagnosed with AS)	Minimal	10 min	Screening
Infant/Toddler Checklist of Communication and Language Development (CHECKLIST) (Blackwell, 2002)	Infant, Toddler						Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Krug Asperger's Disorder Index (KADI) – Elementary form/ Secondary form (Krug, et al., 2003)	6-11 yrs 12-21 yrs	Questionnaire for an appropriate rater as someone who can read at the sixth-grade level who has regular and daily contact with the individual for at least a few weeks	32 items	The standardization sample 486 (130 diagnosed with AS; 162 diagnosed with autism; 194 individuals described as "normal")		5-10 min	Diagnosis
Modified Checklist for Autism in Toddlers (M-CHAT) (Robins et al., 1999; Robins & Dumont-Mathieu, 2006)	24 mos	Parent-report checklist	An extension of The Checklist for Autism in Toddlers (CHAT; Baron-Cohen et al., 1992), 23 items	Total sample 1,293 (no follow-up n=1,161; OK on phone follow up n=74; non-autistic n=19; autistic/PDD n=39)	None		Screening
Parent Interviews for Autism-Clinical Version (PIA-CA) (Stone et al., 2003)	Under 3yrs	Structured interview for Parent	93 items, Five point Likert scale, 9 dimensions - Social relating - Affective responses - Imitation - Peer interactions - Imaginative play - Language understanding - Non-verbal communication - Sensory responses - Need for sameness	Total sample 67; 30 (Autism=15, Non-autistic developmental disorders=15) for internal consistency and validity study 37 with ASD for sensitivity to change study			Diagnosis

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Parents' Evaluation of Developmental Status (PEDS) (Glascoe, 1997)							Screening
PDD Behavior Inventory (PDDBI) (Cohen, Schmidt-Lackner, Romanczyk, & Sudhalter, 2003)	1-17 yrs	Parent and teacher version questionnaire	306 items, 7 subscales (original version, 1997) 176 items, 10 subscales for the parent version (2003) 144 items , 8 subscales for the teacher version (2003) - Sensory/Perceptual approach behaviors - Aggressiveness - Specific Fears (parent version only) - Arousal Problems (parent version only) - Social Pragmatic problems - Social Approach - Learning, Memory, and Receptive Language - Phonological Skills - Semantic/Pragmatic Ability	Total sample 311 parents of children between the ages of 1 and 17 years (Autistic disorder=259, PDD-NOS=39, CDD=3, AS=10)	Minimal	45 min	Diagnosis

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Pervasive Developmental Disorders Rating Scale (PDDRS) (Eaves, 2003; Eaves & Williams, 2006; Eaves, Woods-Groves, Williams, & Fall, 2006)	1-24 yrs	Parent and teacher's questionnaire	51 items, Five point Likert scale, 3 subscales - Arousal (22 items) - Affect (19 items) - Cognition (10 items)	Total sample 844 individuals diagnosed with PDD (Eaves, 2003); 199 children (1-6 yrs) with Autism for Factor analysis (Eaves & Williams, 2006)	Minimal		Screening
Pervasive Developmental Disorders Screening Test II-Stage 1,2,3 (PDDST-II) (Siegel, 1998; Siegel, 2001, Siegel, 2004)	12-48 mos	Parent Questionnaire	Stage 1-Primary Care Screener (Stage 1-PCS), 22 items Stage 2-Developmental Clinic Screener (Stage 2-DCS), 14 items Stage 3-Autism Clinic Severity Screener (Stage 3-ACSS), 12 items 41 Supplemental items	Total sample 943 (with ASD or Other Disorders) (M=714, F=229)	Minimal	5 min each (10-20 min)	Screening
Pervasive Developmental Disorders Screening Test-Stage 1 (PDDST-Stage 1)	Under 6yrs	Parent Questionnaire			None		Screening
Pre-Linguistic Autism Diagnostic Observation Schedule (PL-ADOS) (DiLavore, Lord, & Rutter, 1995)	Under 6 yrs	Observation					Diagnosis

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Psychoeducational Profile-Third Edition (PEP-3) (Scholer, Lansing, Reichler, & Marcus, 2005)	6 mos-7 yrs	Caregiver report	Subtests - Problem Behaviors - Personal Self-Care - Adaptive Behavior Including materials: - Examiner's Manual - Guide to Item Administration - Picture Book - Examiner Scoring and Summary Booklets - Response Booklets - Caregiver Reports: Current Developmental Levels, Diagnostic Categories and Degree of Problem - an Object Kit		Experience, video available	45 min-1hr	Diagnosis
Real-Life Rating Scale (RLRS) (Freeman, Ritvo, Yokota, & Ritvo, 1986)					Minimal		Screening
Screening for Autism in 2-Year-Olds (STAT) (Stone et al., 2000)	24-36 mos	Clinical observation/ Interactive play-based tool	10 pass/fail items 2 play items aiding interaction No subscale scores (a range of social, communication, and play skills)	Total sample 40 (M=22, F=18; autistic =7; non-autistic=33, 15 with developmental delay, 9 with language impairment)	Requires training	20 min	Screening

Measures	Ages	Format	Items/Subdomains	Sample Size	Level of Expertise	Admin Time	Purpose
Social Responsiveness Scale (SRS) (Constantino, ???)	4-18 yrs	Parent or teacher's report	65 items - social impairment - social awareness - social information processing - capacity for reciprocal social communication - social anxiety - avoidance - autistic preoccupations and traits		None	15-20 min	Diagnosis

Presenter
Hyo Jung Lee, M.A.
Ohio Center for Autism and Low Incidence Disabilities
University of Kansas
Doctoral student, Project coordinator
Email: hyo_jung_lee@ocali.org , hjlee05@ku.edu

Hyo Jung Lee (2007). Overview of diagnostic instruments for autism spectrum disorders. In process.

On-going Assessment

Teams use the baseline data, gathered through a multi-tier system of supports and an initial evaluation, to determine eligibility, and appropriate special education and related services. Team members continue gathering data on an on-going basis, to measure progress on goals and benchmarks. By collecting data at regular intervals and documenting the results, the team can determine the effectiveness and appropriateness of the interventions.

When reviewing data to determine if adequate progress is being made, it is helpful if the information is represented in the form of a graph showing growth or lack of growth over time. To determine if skills have generalized across settings, stimuli (materials) and people, data should be collected in different settings (e.g., home, school, community).

When selecting a test to administer, care should be taken to ensure that the limitations of the standardized testing procedures do not skew the test results. Children with ASD often perform better on standardized tests that measure nonverbal ability. Assessment tools that rely heavily on verbal skills and social interaction may not produce valid results. Members of the comprehensive evaluation team should always consider the appropriateness of a test and the validity of the results obtained, when assessing children with ASD.

The following is a list of common instruments used in assessment:

Intelligence

These tests provide an estimate of an individual's potential for learning based on verbal and non verbal abilities. The tests listed below are standardized measures and are administered individually by a certified school psychologist or licensed psychologist.

Instrument	Age Range	
Battelle Developmental Inventory 2nd Edition (BDI-2) (Riverside Publishing)	Birth – 7.11	Administration: Complete BDI-2, 1-2 hours; Screening Test: 10-30 minutes Level of Expertise: Requires training
Bayley Scales of Infant Development-III (Bayley-III) (Psychological Corporation)	Birth – 3.6	Administration: 30-90 minutes (depending upon the age of the child) Level of Expertise: Requires advanced training
Das-Naglieri: Cognitive Assessment System (CAS) (Riverside Publishing)	5 – 17.11	Administration: 40 minutes for the Basic Battery (8 subtests); 60 minutes for the Standard Battery Level of Expertise: Requires advanced training
Developmental Profile 3 (DP – 3) (Western Psychological Services)	Birth –12:11	Administration: 20-40 minutes Level of Expertise: Requires training
Differential Ability Scales- II (DAS-II) (Psychological Corporation)	2.6 – 17.11	Administration: Core Battery: 45 – 60 minutes; Diagnostic Subtests: 30 minutes Level of Expertise: Requires advanced training
Kaufman Assessment Battery For Children- 2nd Edition (KABC-II) (Pearson Assessments)	3 - 18	Administration: Core Battery 25-70 minutes Level of Expertise: Requires advanced training

Instrument	Age Range	
Leiter International Performance Scale-Revised (Leiter – R) (Stoelting Company)	2 – 21	Administration: 25 – 40 minutes Level of Expertise: Requires advanced training
McCarthy Scales of Children's Abilities (Psychological Corporation)	2.5 – 8.5	Administration: 45 minutes for children under 5; 1 hour for older children Level of Expertise: Requires advanced training
Miller Assessment for Preschoolers (MAP) (Western Psychological Services)	2.9 – 5.8	Administration: 30 – 40 minutes Level of Expertise: Requires advanced training
Stanford-Binet Intelligence Scale-5th Edition (SB5) (Riverside Publishing)	2.0- 85+	Administration: Approximately 5 minutes per subtest Level of Expertise: Requires advanced training
Comprehensive Test of Nonverbal Intelligence-3rd Edition (CTONI-3) (Pro-Ed)	6.0 – 90.11	Administration: 60 minutes Level of Expertise: Requires advanced training
Universal Nonverbal Intelligence Test (UNIT) (Riverside Publishing)	5.0 – 17.11	Administration: 10-15 minutes for Abbreviated Battery; 30 minutes for the Standard Battery; 45 minutes for Extended Battery Level of Expertise: Requires advanced training
Wechsler Intelligence Scale for Children- 4th Edition (WISC-IV) (Psychological Corporation)	6.0 – 16.11	Administration: time varies by the number of subtests administered Level of Expertise: Requires advanced training
Wechsler Intelligence Scale for Children- 4th Edition Integrated (WISC-IV Integrated) (Psychological Corporation)	6.0 – 16.11	Administration: time varies by the number of subtests administered Level of Expertise: Requires advanced training
Wechsler Nonverbal Scale of Ability (WNV) (Psychological Corporation)	4.0 – 21:11	Administration: Full Battery: 45 minutes; Brief version: 15-20 minutes Level of Expertise: Requires advanced training
Wechsler Preschool and Primary Scale of Intelligence-III (WPPSI) (Psychological Corporation)	2.6 – 7.3	Administration: Ages 2:6 –3:11: 30-45 minutes; Ages 4:0 – 7:3: 45-60 minutes Level of Expertise: Requires advanced training

Instrument	Age Range	
Wechsler Adult Intelligence Scale-III (WAIS-III) (Psychological Corporation))	16 - adult	Administration: VIQ, PIQ, Full Scale IQ: 60-90 minutes Level of Expertise: Requires advanced training
Wechsler Adult Intelligence Scale—Fourth Edition (WAIS-IV) (2008) (Psychological Corporation)	16:0-89:0	Administration: VIQ, PIQ, Full Scale IQ: 60-90 minutes Level of Expertise: Requires advanced training
Woodcock-Johnson III Tests of Cognitive Abilities (WJ-III NU) (Riverside Publishing)	2 - adult	Administration: Varies, about 5 minutes per test; Cognitive Standard 7 tests (35-45 minutes) Level of Expertise: Requires advanced training
Raven's Advanced Progressive Matrices (The Psychological Corporation)	6 - adult	Administration: Untimed, 40 to 60 minutes Level of Expertise: Requires advanced training

Academic

School age children with ASD are required to participate in all state and district level assessments. Options include the general assessment with or without accommodations, the Kansas Assessment with Multiple Measures (KAMM) and the Alternate Assessment. Data from these assessments are beneficial in determining a child's fund of knowledge and academic skill level.

Instrument	Age Range	
Assessment of Basic Language And Learning Skills – Revised (ABLLS - R) (Behavior Analysts, Inc.)	Preschool - adult	Administration: Ongoing Level of Expertise: Requires training
Bracken Basic Concept Scale: Expressive (BBCS:E) (Psychological Corporation)	3:0-6:11	Administration: 20 – 25 minutes total test; SRC 10-15 minutes Level of Expertise: Requires training
Bracken Basic Concept Scale – Third Edition: Receptive (BBCS-3:R) (Psychological Corporation)	3:0-6:11	Administration: 20 – 25 minutes total test; SRC 10-15 minutes Level of Expertise: Requires training
Brigance Comprehensive Inventory Of Basic Skills-Revised (CIBS-R) (Curriculum Associates)	Grades pre-K - 9	Administration: Ongoing Level of Expertise: Requires training

Instrument	Age Range	
Kaufman Test of Educational Achievement, Second Edition (KTEA II) (Pearson Assessments)	4:6 -- 90	Administration: Comprehensive Form –(PreK-K) 30 minutes; (Grades 1-2) 50 minutes; (Grades 3+) 80 minutes; Brief Form – (4:6 to 90) 15-45 minutes Level of Expertise: Requires advanced training
Mullen Scales of Early Learning (Pearson Assessments)	Birth - 5.8	Administration: 15 minutes(1 year); 25-35 minutes (3 yrs); 40-60 minutes (5 years) Level of Expertise: Requires advanced training
Peabody Individual Achievement Test-Revised-Normative Update (PIAT-R/NU) (Pearson Assessments)	Grades K - 12	Administration: 60 minutes Level of Expertise: Requires advanced training
Test of Written Language – Third Edition (TOWL-3) (Pro-Ed)	7:6 – 17:11	Administration: 1.5 hours Levels of Experience: Requires Training
Wechsler Individual Achievement Test 2nd Edition (WIAT-II) (Psychological Corporation)	4 - 19	Administration: Pre-K: 45 minutes; Grades 1-6: 90 minutes; Grades 7-16: 1/5-2 hours Level of Expertise: Requires advanced training
Wide Range Achievement Test – 4th Edition (WRAT-4) (Psychological Assessment Resources, Inc.)	Grades K - 12	Administration: 15 – 30 minutes Level of Expertise: Requires training
Woodcock-Johnson III-NU Tests of Achievement (Riverside Publishing)	2-90 Grades K - adult	Administration: time varies, about 5 minutes per subtest; Achievement Standard 11 tests (55-65 minutes) Level of Expertise: Requires advanced training
Stanford Achievement Test- 10th Ed. (Psychological Corporation)	Grades K - 12	Administration: untimed with flexible guidelines Level of Expertise: Requires training
Qualitative Reading Inventory-4 (QRI-4) (Western Psychological Services)	Grades K - 12	Administration: not reported Level of Expertise: Requires training
Tests of Early Reading Ability 3 (TERA-3) (Western Psychological Services)	3 – 8	Administration: 30 minutes Level of Expertise: Requires training

Instrument	Age Range	
Test of Reading Comprehension: Third Edition (TORC-3) (Western Psychological Services)	7-0 – 11	Administration: 30 minutes Level of Expertise: Requires training
Test of Early Mathematics Ability – Third Edition (TEMA-3) (Western Psychological Services)	3-0 – 8-11	Administration: not recorded Level of Expertise: Requires training

Adaptive Behavior

Teams should consider conducting a task analysis of current daily living skills.

Instrument	Age Range	
AAMR Adaptive Behavior Scales-School (AB-S:2) (Western Psychological Services)	3.0 – 18.11	Administration: Not recorded Level of Expertise: Requires training
Adaptive Behavior Assessment System-2nd Edition (ABAS—Second Edition) (Psychological Corporation)	Birth - 89	Administration: Approximately 15-20 minutes for respondents to complete checklist Level of Expertise: Requires training
Battelle Developmental Inventory 2nd Edition (BDI-2) (Riverside Publishing)	Birth – 7.11	Administration: Complete BDI-2, 1-2 hours; Screening Test: 10-30 minutes Level of Expertise: Requires training
Brigance Inventory of Early Development – II (IED – II) (Curriculum Associates)	Birth – 7	Administration: Ongoing Level of Expertise: Requires training
Brigance Life Skills Inventory (LSI) (Curriculum Associates)	Grades 2 – 8	Administration: Ongoing Level of Expertise: Requires training
Psycho Educational Profile – Third Edition (PEP – III) (Pro-Ed)	Developmental age 6 months – 7 years	Administration: 45 – 90+ minutes Level of Expertise: Requires advanced training
Scales of Independent Behavior-Revised (SIB-R) (Riverside Publishing)	Infancy – 80+	Administration: 45-60 minutes for Full Scale; 15-20 minutes for Short Form or Early Development Form Level of Expertise: Requires advanced training
Vineland Adaptive Behavior Scales, Second Edition (Vineland-II) (Pearson Assessments)	Birth – 18.11 and low functioning adults	Administration: Survey Interview and Parent/Caregiver Rating Forms 20-60 minutes Level of Expertise: Requires advanced training

Instrument	Age Range	
Vineland Social-Emotional Early Childhood Scales (Vineland SEEC) (Pearson Assessments)	Birth – 5:11	Administration: 15-25 minutes Level of Expertise: Requires advanced training
Developmental Profile 3 (DP-3) (Western Psychological Services)	Birth – 12:11	Administration: 20 – 40 minutes Level o Expertise: Requires training

Behavior

A functional behavioral assessment helps determine the function or purpose of challenging behavior. Once the function is determined, the teacher can identify new skills or behaviors to teach the child which will serve the same purpose as the challenging behaviors, thus allowing the child to meet their needs using more adaptive behavior.

Instrument	Age Range	
Motivation Assessment Scale (MAS) (Program Development Associates)	All ages	Can be completed online at monassociates.com/mas/MAS.html
Battelle Developmental Inventory 2nd Edition (BDI-2) (Riverside Publishing)		Administration: Complete BDI-2, 1-2 hours; Screening Test: 10-30 minutes Level of Expertise: Requires training
Behavior Assessment System for Children, Second Edition (BASC-2) (Pearson Assessments)	2:0 – 21:11	Administration: 10 – 20 minutes (Teacher Rating Scale, Parent Rating Scale); 30 minutes (Self Report Scale) Level of Expertise: Requires training
Burks Behavior Rating Scales, Second Edition (BBRS-2) (Western Psychological Services)	Pre K – Grade 12	Administration: 10 – 15 minutes Level of Expertise: Requires training
Conners' Rating Scales, Revised (CRS-R) (Western Psychological Services)	3 - 17	Administration: Long version: 15 – 20 minutes; Short version: 5 – 10 minutes Level of Expertise: Requires training

Social

Instrument	Age Range	
Battelle Developmental Inventory 2nd Edition (BDI-2) (Riverside Publishing)	Birth – 7.11	Administration: Complete BDI-2, 1-2 hours; Screening Test: 10-30 minutes Level of Expertise: Requires training
Social Skills Rating System (SSRS) (Pearson Assessments)	3 - 18	Administration: 10-20 minutes per questionnaire Level of Expertise: Requires training
Social Responsiveness Scale (Western Psychological Services)	4-18	Administration: 15 – 20 minutes Level of Expertise: Requires training

Communication, Language, and Literacy Assessments

Instrument	Age Range	
Symbolic Play Test (2nd edition) (Lowe & Costello) (GL assessment)	1-3 years of age	Administration: 10 – 15 minutes Level of Expertise: Requires training
Receptive One Word Picture Vocabulary Test (ROWPVT) (Western Psychological Services)	2 – 18.11 years	Administration: 20 minutes Level of Expertise: Requires training
Expressive One Word Picture Vocabulary Test (EOWPVT) (Western Psychological Services)	2 – 18.11 years	Administration: 15-20 minutes Level of Expertise: Requires training
The Khan-Lewis Phonological Analysis , Second Edition (KLPA-2) (AGS Publishing)	2 -21 years	Administration: 10 – 30 minutes Level of Expertise: Requires training
Test of Auditory Comprehension of Language – Third edition (TACL-3) (AGS Publishing)	3 – 9.11 years	Administration: 10 – 20 minutes Level of Expertise: Requires training
Clinical Evaluation of Language Fundamentals-4 (CELF-4) (The Psychological Corporation)	5 – 21 years	Administration: 30 – 60 minutes Level of Expertise: Requires training
Comprehensive Assessment of Spoken Language (CASL) (Pearson)	3-21 years	Administration: 35 – 40 minutes Level of Expertise: Requires training
Functional Communication Profile – Revised (FCP-R) (LinguiSystems)	3 to adults	Administration: 45 – 90 minutes Level of Expertise: Requires training
Test of Pragmatic Language Skills – Second Edition (TOPL-2) (Western Psychological Services)	6.0 – 18.11	Administration: 45 – 60 minutes Level of Expertise: Requires training
Test of Problem Solving – Elementary, Revised (TOPS-E, Revised) (LinguiSystems)	6 – 11.11 years	Administration: Level of Expertise: Requires training
The Test of Problem Solving- Adolescent (TOPS- Adolescent) (LinguiSystems)	12 -17 years	Administration: 35 – 40 minutes Level of Expertise: Requires training

Instrument	Age Range	
The Language Processing Test 3: Elementary (LPT-3: Elementary) (LinguiSystems)	5 -11 years	Standardized measure which assesses the ability to process, organize, and attach meaning to auditory information.
Assessment of Literacy and Language (ALL) (Harcourt)	Prekindergarten , Kindergarten , first grade	Administration: 60 minutes Level of Expertise: Requires training
Comprehensive Test of Phonological Processing (Western Psychological Services)	5 to 6 years 7 to 24 years	Administration: 30 minutes Level of Expertise: Requires training
Phonological Awareness Test (LinguiSystems)	5-0 to 9-11	Administration: 40 minutes Level of Expertise: Requires training
Phonological Awareness Profile (LinguiSystems)	Ages 5.0 - 8	Administration: quick to give Level of Expertise: Requires training
Lindamood Auditory Conceptualization Test-3 (LAC-3) (Pearson)	Preschool through adult	Administration: 20-30 minutes Training: Requires some training
Dynamic Indicators of Basic Early Literacy Skills (DIBELS) www.dibels.org	Preschool through 3rd grades Fluency with connected text appropriate for: 1st through 3rd grades	Administration: short (1 minute) fluency measures of early literacy/early reading skills Training: requires some training
Gray Oral Reading Test 4th Edition; (GORT-4) (ProEd)	7 to 18-11 years	Administration: 20-30 minutes Training: requires some training
Test of Word Reading Efficiency (TOWRE) (ProEd)	6 to 24 years	Administration: 5-10 minutes Training: requires some training
Qualitative Reading Inventory-4 (QRI-4) (Western Psychological Services)	Pre-primer through high school	Administration: Level of Expertise: Requires training
Woodcock Reading Mastery Tests-Revised (Pearson)	Kindergarten to adults	Administration: 10 – 30 minutes for each cluster of tests Training: requires training

Transition

Instrument	Age Range	
TEACCH Transition Assessment Profile II (TTAP) (Pro-Ed)	Grades 3rd – 12th	Administration: 1.5 – 2 hours for Direct Observation Scale; 3 –3.5 hours for 3 scales (Direct, Home, School/Work) Level of Expertise: Requires advanced training
Transition Planning Inventory – Updated Version (TPI—UV) (Pro-Ed)	14 –22	Administration: 15 – 30 minutes Level of Expertise: Requires training

Informal Assessments for Social/Communication

Instrument	Age Range	
Autism Social Skills Profile (AAPC)	Grades K –12	Building Social Relationships: A Systematic Approach to Teaching Social Interaction Skills to Children and Adolescents with Autism Spectrum Disorders and Other Social Difficulties, by Scott Bellini, PhD
Social Skills Checklist (Paul H. Brooks Publishing Company)	Grades Pre-K – 3rd	Do-Watch-Listen-Say, by Kathleen Quill
Social Thinking Dynamic Assessment Protocol (Think Social Publishing)	Grades K -- 12	Thinking About You, Thinking About Me, 2nd Edition, by Michelle Garcia Winner
Social Skills Checklist http://depts.washington.edu/dataproj/SocialSkillsChecklist11-04.pdf	3:0 -- 8	By Project DATA, University of Washington

Informal Assessments for Communication, Language, and Literacy

Instrument	Age Range	
A Scale for Assessing Development of Children's Play (Westby)		Instrument that examines the developmental elements of play.
Wolfberg's informal play assessment for children with Autism (Wolfberg)		Informal play assessment for children with autism that takes into account the cognitive, communication, and social dimensions of play activities.
Concepts about Print (Clay, 2000)	5 to 7 years	Nonstandardized assessment of early concepts about print.

Additional areas to consider include motor, sensory, vocational, leisure (preference inventories).

Appendix C
Nonsymbolic Dictionary and Augmented Input Dictionary

TRI-FOCUS STRATEGIES: ENHANCING SENSITIVITY [2]

To create a **NONSYMBOLIC SIGNAL DICTIONARY** for a learner:

1. Observe the learner in a variety of activities / environments, as well as with a variety of different partners.

2. Generate a listing of communicative signals OR potential signals by identifying any / all the volitional movements and responses a learner has.

3. Analyze this listing (from #2, above) of learner responses to identify any patterns that exist.

4. Select a few (4-7) of these (i.e., the most frequently-occurring and / or the most essential to the learner) as the core signals with which to begin.

5. Assign MEANING to each of these, considering *the learner's* most likely intent.

6. Determine corresponding behaviors for the learner's partners--
    a. what the partner will DO each time each learner's signal is observed.
    b. what the partner will SAY each time each learner's signal is observed.

7. Stress to *all partners* the importance of responding to every occurrence of each signal immediately, consistently, AND in a manner that corresponds to the learner's sensory and motor skills.

*****A nonsymbolic signal dictionary targets development of a learner's EXPRESSIVE COMMUNICATION skills.*****

[2] Note. From "Tri-Focus Strategies: Enhancing Sensitivity." by S. M. Bashinski, 2008. Copyright 2000 S. M. Bashinski. Reprinted with permission

NONSYMBOLIC SIGNAL DICTIONARY

Each time _____ DOES this….	It will be interpreted to MEAN this….	_____'s partner will DO this…	_____'s partner will SAY this…

Used with permission. © Bashinski, July 1996

NONSYMBOLIC SIGNAL DICTIONARY

Each time _____Z_____ DOES this….	**It will be interpreted to MEAN this….**	**_____Z_____'s partner will DO this…**	**_____Z_____'s partner will SAY this…**
1. Bites the lower palm of his hand	1. Z is feeling some type of distress (e.g., pain, fear, or frustration)	1. Gently lower Z's hand and rest own hand on Z's right shoulder	1. "Relax, Z." (using a reassuring voice)
2. Moves around in his chair / Attempts to stand up	2. Z is ready for the current activity to end (i.e., "I'm done.")	2. BREAK from the current activity for X seconds	2. "Take a break."
3. Turns away / Dissociates from task presented to him	3. "I don't want to do that."	3. Remove materials presented and offer an alternative task	3. "You want something else."
4. Reaches for object	4. Z is interested (i.e., "I want that!"	4. Provide Z with object: (a) IF Z may have the object, let him hold it / use it (b) IF Z may not have the object, assist him to look at object 15-20 seconds, then remove it	4. (a) "You want the _____." (b) "I'll help you see the _____."
5. Extends hand to another person	5. Z is greeting that person (e.g., "Hi!")	5. Extend and shake Z's right hand	5. "Hi, Z! How ya' doin'?"
6. Maintains eye contact with a person	6. Z is being social	6. Return and maintain eye contact with Z	6. "You want to talk?"
7. Remains in close proximity (approximately 2") of a person	7. Z wants attention / to interact with that person	7. NOTICE. Give Z attention with cue to his left forearm	7. "I'll show you what I'm doing."

Used with permission. © Bashinski, July 1996

TRI-FOCUS STRATEGIES: ENHANCING SENSITIVITY (WORKSHEET)

- Some of _____'s observable behaviors that might be treated as potential communicative signals include:
-
-

- According to my best guess, these behaviors (SIGNALS) might have the following meanings:

Used with permission. © Bashinski, July 6, 2000.

TRI-FOCUS STRATGIES: AUGMENTING INPUT[3]

To create an **AUGMENTED INPUT DICTIONARY** for a learner:

1. Select tangible symbol identifiers (OBJECT CUES) for each key person / activity the learner encounters regularly.

2. Match features of the tangible symbols (OBJECT CUES) to the learner's sensory skills *and* preferences.

3. Choose TOUCH CUES for each of the requests routinely made of the learner.

4. Target TOUCH CUES at body parts the learner can volitionally move.

5. Assign a *unique* MEANING to each TOUCH and OBJECT CUE selected.

6. Determine corresponding behavior for the learner's partners—
   a. what the partner will DO each time the cue is delivered to the learner
   b. what the partner EXPECTS the learner to do, each time, following the cue.

7. Stress to *all partners* the importance of providing consistent cues to the learner, each and every time one of the events specified in the dictionary is to take place, in the manner specified.

*****An augmented input dictionary targets development of a learner's RECEPTIVE COMMUNICATION skills.*****

[3] *Note*. From "Tri-Focus Strategies: Augmenting Input." by S. M. Bashinski, 2008. Copyright 1996 S. M. Bashinski. Reprinted with permission.

AUGMENTED INPUT DICTIONARY

TOUCH or OBJECT Cue	It is used to communicate this MEANING….	_____'s partner will DO this…	What is EXPECTED from the learner

Used with permission. © Bashinski, June 2007.

AUGMENTED INPUT DICTIONARY

TOUCH or OBJECT Cue	It is used to communicate this MEANING….	_____'s partner will DO this…	What is EXPECTED from the learner
1. Firm touch to Z's left elbow; hold left wrist	1. Time to stand up	1. Give sign and say, "Stand up, please." Do NOT repeat, unless touch cue is repeated	1. Begin to scoot self forward on bottom, in chair, in preparation for standing
2. Two taps to back of Z's right hand	2. Open the door	2. As Z approaches the door, delay (15 secs.) to see if he opens it independently. If NOT, give touch cue and say, "Open the door."	2. Reach to door, press door open
3. Point with two fingers, at Z's eye level, to the right or the left (direction he is supposed to walk)	3. Go to the right or the left (i.e., stay on the sidewalk)	3. Say, "Go this way." Do NOT repeat, unless touch cue is repeated	3. Orient Z's body in direction of the point; begin to walk / move in that direction
4. Firm touch to the middle of Z's back, with full fingers of the partner's hand	4. Keep on going (i.e., it's not time to stop yet)	4. Say, "Keep on walking," and maintain contact with Z's back until he starts moving. Do NOT repeat words unless Z stops moving again	4. Resume walking, after having stopped unnecessarily
5. Tap body part / object (Z is holding) with partner's index finger, two times	5. I want you to give the X to me	5. Say, "Give me your (body part)," OR "Give me the X," which ever is appropriate	5. Release object, voluntarily, to the partner
6. Put partner's flat index finger in Z's open left palm	6. You may take one thing	6. Say, "Take one," OR "Choose one," which ever is appropriate	6. Pick up only one of the displayed items, OR grasp the displayed object

Used with permission. © Bashinski, June 2007

TRI-FOCUS STRATEGIES: AUGMENTING INPUT (WORKSHEET)

_____ uses the following senses to gather information about the world:

_____

_____

She / He can move these parts of her / his body independently:

_____

_____

_____ seems to prefer these types of sensory, motor, and perceptual input:

_____

_____

_____

These persons / activities / requests need OBJECT/ TOUCH CUES for _____:

_____

_____

_____

Used with permission. © Bashinski, July 2000.

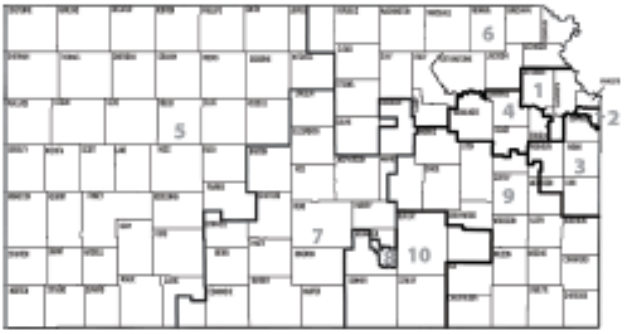
Kansas State Board of Education
120 S.E. 10th Avenue • Topeka, Kansas 66612-1182

Education Priorities of the Kansas State Board of Education

Ensure that all students meet or exceed high academic standards and are prepared for their next steps (e.g., the world of work and/or post secondary education).
To accomplish the mission of the Kansas State Board of Education, the Board has identified four goals. They are as follows:

- Redesign the delivery system to meet our students' changing needs.
- Provide an effective educator in every classroom.
- Ensure a visionary and effective leader in every school.
- Improve collaboration with families and communities, constituent groups and policy partners.

Kansas State Board of Education
Adopted 5/2009



Board Members

District 1
Janet Waugh, Chairman
9165 S. 57th Terrace
Kansas City, KS 66106
913-287-5165 (home)
jwaugh1052@aol.com

District 2
Sue Storm
8145 Mackey
Overland Park, KS 66204
913-642-3121 (home)
sstorm717@aol.com

District 3
John W. Bacon
14183 W. 157th
Olathe, KS 66062
913-680-0392 (home & FAX)
jwmebacon@aol.com

District 4
Carolyn L. Wims-Campbell
3824 S.E. Illinois Ave.
Topeka, KS 66609
785-266-3798 (home)
campell4kansasboe@verizon.net

District 5
Sally Cauble
530 Lilac
Liberal, KS 67901
620-624-6677
scauble@swbell.net

District 6
Kathy Martin
859 Valleyview Rd.
Clay Center, KS 67432
785-463-5463 (home)
martinkathy@yahoo.com

District 7
Kenneth Willard
24 Dakota Dr.
Hutchinson, KS 67502
620-669-0498 (home)
866-389-2103 (FAX)
kwillard@cox.net

District 8
Walt Chappell
3165 N. Porter
Wichita, KS 67204
316-838-7900 (work)
chappellhq@chappell4kcboe.com

District 9
Jana Shaver, Vice-Chairman
113 Woodlane Dr.
Independence, KS 67301
620-331-1452 (home & FAX)
janashaver@cableone.net

District 10
David Dennis
615 N. Rainbow Lake Rd.
Wichita, KS 67235
316-729-1979 (home)
316-650-0152 (cellular)
ddennis@swbell.net

Kansas State Department of Education

Dr. Alexa Posny
Commissioner
785-296-3202

Dale M. Dennis
Deputy Commissioner
Division of Fiscal & Administrative Services
785-296-3871

Dr. Diane DeBacker
Deputy Commissioner
Division of Learning & Innovative Services
785-296-2303

An Equal Employment/Educational Opportunity Agency
The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: KSDE General Counsel, 120 SE 10th Ave., Topeka, KS 66612 (785) 296-3201