AUTISM SPECTRUM DISORDER: SERVICES IN WEST VIRGINIA SCHOOLS

GUIDELINES FOR BEST PRACTICES: 2023 REVISION

TABLE OF CONTENTS

WEST VIRGINIA DEPARTMENT OF EDUCATION

Office of Special Education

Michele L. Blatt
State Superintendent of Schools

Melanie Purkey
Executive Director,
Office of Federal Programs and Support

Sheila Paitsel
Director, Special Education

This material is available in alternative format upon request. Contact the Office of Federal Program and Support at 833-627-2833. Office of Federal Programs and Support is committed to equal opportunity in all programs, activities, and employment and to full compliance with federal and state laws that prohibit discrimination on the basis of race, ethnicity, national origin, sex, sexual orientation, religion, military status, age or disability.

Acknowledgements

The West Virginia Department of Education, Office of Special Programs and Special Education would like to thank the Office of Superintendent of Public Instruction (OSPI) in the state of Washington for the use of their Guidance document.

The 2023 task force volunteered to edit, revise, and write additions as needed for the document. The 2023 task force included the following individuals:

Breanna Adkins, MOT, OTR, BCP	Asst. Professor Division of OT/ Birth to Three	West Virginia University
Jennifer Anderson, M.A. NBCT	Coordinator: Autism Spectrum Disorders, OSE	WVDE
Emily Arbogast, M.A.T.	Middle School Teacher	Kanawha County School
Claire Baniak, Psy.D.	Pediatric Psychologist/Professor	WVU/WVU Medicine
Susan Beck	Director of Extended Learning	Putnam County Schools
Lee Ann Brammer, M.A., CCC-SLP	Coordinator: Related Services, OSE	WVDE
JoDonna Burdoff	Behavior Specialist	WVDE
Jackie Clark, Ed.D.	Director of Direct Services Center	WV Autism Training Center
Marc Ellison, Ed.D. LPC	Director	WV Autism Training Center
Tracie Evans, M.S., CCC-SLP	Speech Language Pathologist	Monongalia County Schools
Lisa Fisher, M.A.	Coordinator: Early Childhood Special Education	WVDE
Shelby Haines, BCBA	Superintendent	Marshall County Schools
Lanai Jennings, Ph.D. NCSP	Professor of Psychology	Marshall University
Alexa Kirkwood	Autism Teacher	Kanawha County Schools
Tina Lilly	Autism Teacher	Fayette County
Taylor McClanahan	Parent/CARES Member	Kanawha County
Jennifer McFarland-Whisman, Ph.D., BCBA	Special Education Professor	Marshall University
Susannah Poe, Ed.D. BCBA	Director of ABA Services	WVU Children's Hospital
Jill Scarbro, BCBA	CEO	Bright Futures Learning Services
Angela Trader, M.A. BCBA	Parent/Behavior Specialist	Wayne County
Angela Wood, BCBA	Director	Augusta Levy Learning Center

"Empowering parents and teachers to help those diagnosed with autism to be motivated to help each one reach optimal achievements."

-Tina Lilly

Introduction

We know more today than ever before about autism spectrum disorders (ASD). Research continues to uncover more and more information about autism, including possible causes. As a result, greater attention is being devoted to early diagnosis, early intervention, and the development of educational strategies for the many learning differences of children with ASD.

Researchers and other professionals are now able to provide more information about the characteristics and diagnostic criteria of ASD and are better equipped to provide researched-based recommendations to those who work with children and youth with ASD. Nonetheless, determining effective educational interventions remains multifaceted and complex to many involved on a day- to-day basis with children and youth on the autism spectrum.

Parents, teachers, speech-language pathologists, school psychologists, and other specialists involved in the education of students with autism want and need to know how best to enable them to reach their potential. This requires that each learn how to utilize existing "best practices" to meet potential overlapping needs of this group, but not at the expense of addressing the individual needs of each student with an autism spectrum diagnosis. Indeed, it is critical to understand that while there may be similarities, no two children have identical needs.

Collaboration between all school-based professionals, including teachers, therapists, and paraprofessionals, is critical to the academic success and quality of life for students with ASD and their families. A holistic, team-based approach is the most effective treatment approach for all children with disabilities. Communication, trust, and partnership between all school-based professionals is best practice and most beneficial for all stakeholders.

Professionals in WV Schools are dedicated to supporting the neurodiversity of all students, including our students diagnosed with ASD. Neurodiversity is the idea that all children and individuals experience the world differently and that there is no predefined correct way of thinking, learning, or behaving (Baumer & Frueh, 2021). Children all experience, perceive, and react to the world differently and those differences should be supported and not viewed as deficits. The goal of this document is to provide school professionals the background knowledge and strategies to help support those differences to allow our students to be as successful as they can be.

Additional information may be found at *www.cdc.gov/ncbddd/autism/index.html*.

Purpose

The purpose of this guidance document is to: 1) provide education-related information about ASD; and 2) assist Individualized Education Program (IEP) Teams, including parents, develop researched-based educational programs for children and youth who qualify for special education services under the autism disability category.

This guidance document will address the following questions:

- What is ASD?
- What are the indicators of an appropriate educational program for a student with ASD?
- What are the various methodologies or intervention strategies available to parents and educators working with a student with ASD?
- Where can parents and educators find additional information on ASD?

Please note, this guidance document is not designed to answer every question about ASD. Instead, its purpose is to provide practical education related information, from a range of sources to families and educators about ASD. Like any child receiving special education services, keys to determining appropriate educational services for a student with ASD are ongoing identification of the student's needs and provision of an individualized educational program designed specifically to meet those needs.

Regardless of shared diagnosis, no two children with autism have identical needs.

Autism Spectrum Disorder (ASD)

This section will include information regarding the characteristics associated with ASD, diagnosis of ASD, and an overview of evidence-based approaches and methodologies for treatment of the child with ASD. Treatment for a child with ASD involves the understanding of that child's unique strengths and specific learning needs.

Characteristics Associated with ASD

ASD is a disability with many variations in symptoms and/or behaviors. People with ASD vary widely in abilities, intelligence, and behaviors. The term "spectrum" in ASD reflects the variance in severity of symptoms or characteristics. Different children experience characteristics with varying degrees of impairment. Each child may be ready to learn certain skills at different ages.

The Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition- Text Revision (DSM-5-TR) is currently used to classify disabilities and provides a refined definition of ASD. According to the DSM-5-TR, ASD is characterized by severe and pervasive impairment in several areas of development, including reciprocal social interaction skills, communication skills, and the presence of stereotyped behavior, interests, and activities.

Common Social, Communication, Behavior, Learning and Related Characteristics

Among all the possible behavioral characteristics in ASD, some common behaviors do occur. It is important to be familiar with those as a basis for understanding their impact on educational programming. While not all these characteristics will be the same in all individuals diagnosed with ASD, they will likely include difficulties in the areas of social interaction, communication, behavior, sensory/motor processing and learning new skills.

For more information on ASD diagnosis criteria visit *www.cdc.gov/ncbddd/autism/index.html*.

Information for Parents and Caregivers

This section would serve as a valuable resource to provide to parents and caregivers. Teachers and therapists, please provide this to your parents of children with ASD.

An ASD diagnosis carries with it a wide range of emotions for the parents and family members of the child. It is important to remember you are not alone. Recognize these feelings, if you experience them, and realize you can work through them as you begin to learn more about your child's diagnosis and the many ways you can meet the challenges you face. The Indiana Resource Center for Autism (IRCA) (*https://www.iidc.indiana.edu/irca/index.html*) suggests the following strategies when first told of your child's ASD diagnosis.

Strategy 1: Learn as much as possible about ASD, especially your child's particular diagnosis and how it affects your child.

Strategy 2: Learn as much as possible about the laws, government service, therapies, and the array of educational approaches, as well as the medical and educational terms and various acronyms related to ASD.

Remember:

- Other families and professionals have been down this road and can help navigate legislation and policy, agencies, services, and resources.
- Support groups and information for families of children with disabilities also exist in many locales. They can assist in identifying types and availability of services in your area. They also can provide comfort, acceptance, support, and understanding as your child progresses through each stage of life. Even if you choose not to actively belong to a support group, making an initial contact can provide valuable information.

A list of resources is provided at the end of this guidance document that will help you locate national, state, and local resources.

Strategy 3: Learn how best to participate in important decisions related to your child's education, whatever the age of your child. Children with ASD can and do learn!

Note the following about your child's education:

- The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) is a federal law providing for the education of children with disabilities. Part C of IDEA provides for early identification and intervention for birth through three-year-old with disabilities. In West Virginia, the Birth to Three Program (WV Birth to 3) housed within the Department of Health and Human Resources (DHHR) oversees Part C early intervention services. WV Birth to 3 information can be found at http://www.wvdhhr.org/birth23/.
- IDEA also guarantees a free appropriate public education (FAPE) for students eligible for special education services ages three to twenty-one years. Local education agencies (LEAs) serve preschool and school age children with ASD. WV State Board Policy 2419: Regulations for the Education of Students with Exceptionalities is the policy that is implemented on a statewide basis regarding the education of exceptional students. Parents/caregivers may make a referral for special education services by contacting the LEA special education office (Appendix B). If you have questions about where your child will go to school, please contact your LEA.

- IDEA emphasizes the importance of family involvement when it comes to making educational decisions about their child. It is important for parents/caregivers to be familiar with special education basics to improve their ability to effectively advocate on behalf of their child. All parents/caregivers are considered a valued member of their child's Individualized Education Program (IEP) Team.
- In West Virginia, state law for implementing IDEA, the federal special education law and state regulations are found in chapter §18-20-1, WV Code: Establishment of special programs and teaching services for exceptional children. The policy for exceptional students is Policy 2419: Regulations for the Education of Students with Exceptionalities. This document contains the state's rules that support IDEA. This policy can be found at: *https://wvde.state.wv.us/policies/*.

Strategy 4: Create a system for keeping, organizing, and communicating your child's educational records.

- Over time you will likely access a variety of services from numerous professionals. There will come a time when you need to access something specific in your child's records.
- Organizing the information in a concise manner will help you remember the information and will also make it easier for professionals to utilize information you share from your files. Having a system in place will become increasingly valuable as your child gets older and the amount of information and records increases.
- When requesting services, expressing concerns, or otherwise communicating concerning your child's education and educational records, it is may be advantageous to communicate via email. This establishes communication in writing, creates or adds to a timeline, and can be saved or printed for your records.

Strategy 5: Identify your child's needs, your needs as a parent(s), and your family's needs. Remember:

- Family members may have individual needs, and these may change as your child grows. It can be challenging to balance routines, schedules, and plans; however, it is important that all family members feel accepted, supported, and valued.
- Service needs for your child may change with time. Examples of the types of services individuals with ASD and their families may require include: physical, occupational, and speech-language therapy; residential programs; medical and dental care; financial assistance programs; advocacy; legal information; respite care; sibling and family support; education; socialization; recreation and vocational needs.

Strategy 6: Make it a priority to enjoy time with your family. This is good for every family member, including your child with ASD!

- Establish time for all family members to rejuvenate. You will all have ups and downs, so it is important to keep things in perspective and strive for balance in your lives. Take time for yourselves to reduce the stress that is part of parenting any child, but perhaps intensified when your child has disabilities.
- Laugh together to relieve pressure and stress.

Special Education Services

This section includes an overview of the services students are eligible for under The Individuals with Disabilities Education Improvement Act 2004 (IDEA). The IDEA is the federal law that guarantees early intervention services (Part C) for children ages birth through three years and special education services (Part B) to children and youth ages three to twenty-one years.

Early Intervention: Birth through Three Years of Age

The IDEA, Part C provides for early identification and intervention for individuals from birth through age three with disabilities. The lead agency for Part C in West Virginia is the Department of Health and Human Resources (DHHR). The DHHR Birth to Three Program (WVBTT) is responsible for administering the state system of early intervention services. The State Interagency Coordinating Council (ICC) advises and assists DHHR in administration of the state early intervention program.

WV Birth to Three services include:

- Families who have children with disabilities
- Service coordinators
- Service providers
- Members of the broader community

Early intervention emphasizes a family-centered approach. Families of infants and toddlers are always at the center of the service coordination and can enter the early intervention system through many access points. WVBTT provides support needed to assist families in maximizing the development of infants and toddlers within their natural routines, activities, and culture.

The early intervention process is initiated by a referral to the local lead agency. Anyone can make a referral with the family's permission – a doctor, a parent, childcare provider, or a friend of the family – if there is a concern about an infant or toddler's development.

To be eligible for early intervention services, infants and toddlers must be identified and assessed using tests and procedures that are appropriate for very young children. The findings from these evaluations determine if the infant or toddler is experiencing delays in one or more of the five developmental areas:

- Cognitive – ability to learn and learning style.
- Physical – ability to move, see, and hear.
- Communication – ability to understand language and express needs.
- Social or emotional – ability to relate with others.
- Adaptive skills – ability to dress, eat, and take care of oneself.

Once the evaluation and assessment procedures are complete and the infant or toddler is determined to be eligible for services, the family works with a team to develop an Individualized Family Service Plan (IFSP). The IFSP becomes the written description of services and supports required for an infant or toddler with a disability and his/her family. Services may be provided by several different agencies. An important part of the program is to ensure smooth connections or transitions as children move from the early intervention program to preschool education or other community services. The purpose of this transition meeting is to plan a child's transition into the Part B preschool program if the child is eligible for these services, or into other appropriate services, such as Head Start, community preschool, etc.

More information on WV Birth to Three can be found at *http://www.wvdhhr.org/birth23/*.

School-Based Services: Three to Twenty-One Years of Age

West Virginia state regulations, consistent with IDEA Part B, provide for special education services for eligible students age three to twenty-one. The school district Eligibility Committee, which includes the child's parents, determines whether a child/youth is eligible for special education services. If the child/youth is eligible for special education services, an Individualized Education Program (IEP) is developed delineating the services to be provided.

The Eligibility Criteria for Autism – West Virginia Board of Education Policy 2419: *Regulations for the Education of Students with Exceptionalities* can be found at *https://wvde.us/special-education/policies-and-compliance/.*

Post-School Transition-Transition services are a coordinated set of activities for a child or adult student with a disability that helps prepare the student for life after high school. These services support one or more post-secondary student goals related to one or more of the following: postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. Transition planning for post-school transition should begin no later than when the student starts middle school.

WVBE Policy 2419, consistent with IDEA, provides a framework for the provision of transition planning and services for eligible students. Regulations require that transition services be included in the student's IEP beginning the year in which the student turns fourteen years old, or earlier, if appropriate. This IEP should include appropriate measurable post-secondary goals based on results of assessments completed before this IEP Team meeting, related to training, education, employment and when appropriate, independent living skills. The IEP must include the transition services and courses of study needed to assist the student in reaching his or her post-secondary goals. There are several services and supports available to assist in the transition process. Contact your local school district and/or review the list of resources at the end of this document. Post-secondary transition resources through higher education are listed in Appendix C. These resources are updated at time of publication.

Information for Educators and Professionals

This section covers the aspects of Individualized Family Service Plans (IFSPs) and Individualized Education Programs (IEPs) and the components involved in developing and maintaining a quality educational program for children with ASD.

Overall Goals

The overall goal of educational programs is for students to reach their full potential and function independently in the community. Reaching this goal requires an education based on the individual needs of the child/student. Setting the individual goals for each child requires realistic assessment of present levels of ability, as well as identification of learning deficits. To this end, it is helpful to regularly ask some of the following questions:

- What can the child with ASD do now?
- In what skills does the child excel?
- What skills can be enhanced?
- What skills does the student need to be able to seek employment and live in the community in

adulthood?

- Is there improvement in the child's social and language development?
- Are negative behaviors being appropriately addressed?
- What kind of program does it take to accomplish the overall goal?

The best learning environment for students with ASD is one that is in a structured classroom that supports an educational program that is consistent and predictable for students. In addition, students with ASD learn better when information is presented visually as well as verbally. To the maximum extent appropriate, children with ASD should have opportunities to interact with peers who can provide valuable modeling of appropriate behavior, language, social and play skills.

The following sections will provide an overview of the strategies essential to implementing an effective educational program. Note, however, that these are general descriptions and that educational programs must be individualized to meet the assessed needs of each child.

Quality Program Indicators

The importance of individualizing education programs for children with ASD and the importance of family involvement in those educational programs cannot be overstated. Programs will differ from child to child because of the uniqueness of ASD and the range of potential symptoms involved. There is consensus among researchers, practitioners, and educators that appropriate intervention begins early, usually by thirty months. Furthermore, researchers and professionals have identified several strategies that are essential to implementing an effective program.

The following are suggested components or indicators to be considered in developing and maintaining a quality educational program for children with ASD.

1. Comprehensive team approach involving the family.
2. Comprehensive assessment of skills and deficits.
3. Clearly defined goals addressing the characteristics of ASD.
4. Structure the environment.
5. Effective teaching strategies.
6. Applying functional behavior assessment to problem behavior
7. Assessment of the intervention (data collection)
8. Continuous review of data and programmatic effectiveness towards reaching overall goals
9. Transition planning
10. Opportunities with peers

Components

Component 1: Comprehensive Team Approach Involving the Family

An effective program for students with ASD requires the expertise and input of family members and staff from multiple disciplines trained to understand the elements of ASD. A comprehensive team approach includes the child's parents and, as appropriate, related services personnel such as speech-language pathologists, psychologists, occupational therapists, and physical therapists to address the child's social, behavior,

language, and motor skills as determined by the evaluation results.

Furthermore, a comprehensive team includes special and general education teachers and paraprofessionals to ensure progress in meeting the individualized educational goals of each student. Working together, a comprehensive team assists in establishing and maintaining consistency of teaching and intervention techniques across individuals, lessons, and settings, increasing the potential for students with ASD to acquire, maintain and generalize new skills and abilities.

As previously mentioned, parent and family involvement are an essential component of the student with ASD's educational program. It is important for professionals and parents to discuss how often and in what format ongoing communication can best take place. Developing a rapport with families allows for ongoing and open communication which allows for improved outcomes for students. It is important for staff and parents to keep communication as positive and free of blame as possible. Professionals need to present information in a clear fashion, avoiding the use of educational or medical terminology that may be intimidating and confusing to family members. Problems experienced by family or school members should be discussed as soon as they arise and before they get out of control. To accomplish this task, teachers should involve parents in problem solving and parents should not be afraid to ask questions about any aspect of their child's program.

Concerning family dynamic, it is important to consider sibling relationships. Resources to target increased pro-social sibling interactions can be found in the handouts section of the document.

Summary Box: Comprehensive Team Approach
Parents are active members of the educational team, contributing to decision-making, training issues, and follow-up provisions.
All team members work together to assist in establishing and maintaining consistent interventions.
Sufficient classroom support allows the student to demonstrate progress in meeting the individualized educational goals, objectives, and outcomes.
Related services personnel, such as speech-language pathologists, psychologists and occupational therapists address social, behavior, language, and motor skills as identified by evaluation results.
Goals are consistently generalized throughout the educational program.
Professionals and parents discuss how often and in what format ongoing communication can best take place.
Professionals present information in a clear fashion, avoiding the use of educational or medical jargon.
Proactive approach developed through establishing rapport with parent result in a positive means of problem-solving. Problems are discussed as soon as they arise and before they get out of control.
Teachers involve the parents in problem solving.
Parents are not afraid to ask questions about any aspect of their child's program.

Component 2: Comprehensive Assessment of Skills and Deficits

A comprehensive assessment of a student's skills and abilities is the cornerstone of a quality Individualized Family Service Plan (IFSP) for children under three and Individualized Education Program (IEP) for children/students ages three to 21. By accurately determining the student's skills, strengths and needs, appropriate goals and objectives can be written, and accurate baselines determined.

Assessments may differ because of each student's age and ability level. However, it is essential to consider the characteristics of ASD in completing each assessment. Assessments may include:

- Pre-academic and academic skills.
- Pre-vocational and vocational skills.
- Self-help and adaptive skills.
- Communication development.
- Cognitive development, play skills, and problem-solving skills.
- Socialization skills.
- Social/emotional development and emotional regulation skills.
- Sensory integration and regulation.
- Motivation and reinforcement.
- Behavior.
- Fine and gross motor skills.
- Leisure activities, interests, and hobbies.

Methods of assessment will be dependent upon individual student needs and ability level. WV Policy 2419 provides a framework for the identification process and evaluation procedures. For further information on specific assessment tools, contact the special education director in your local school district. (See Appendix D)

It is important to realize that assessment is a holistic and ongoing process. For each child, a formalized assessment of skills must be conducted at regular intervals. The ongoing assessment results are then utilized to develop, update, and edit the IFSP or IEP as needed.

Summary Box: Comprehensive Assessment of Skills and Deficits
Comprehensive assessment of skills, strengths, and deficits in multiple domains: pre- academic, academic, pre-vocational, vocational, self-help, adaptive, communication, socialization, sensory regulation, motivation, reinforcement, behavior, fine and gross motor, and leisure activities, as well as cognition.
Parents are involved in the assessment process, contributing valuable information about their
child's skills, strengths, interests and needs.
Assessment considers the characteristics of the disability.
Assessment data is utilized to create appropriate goals and objectives.
Assessment data is used to determine accurate baseline of skills, strengths and needs.
Assessment is an on-going process, conducted at regular intervals, to measure progress and as a guide for planning what to teach next.
Proactive approach developed through establishing rapport with parent result in a positive means of problem-solving. Problems are discussed as soon as they arise and before they get out of control.
Teachers involve the parents in problem solving.
Parents are not afraid to ask questions about any aspect of their child's program.

Component 3: Clearly Defined Goals

The key to teaching new skills, or improving emerging skills, is creating clearly defined IEP goals that are developmentally appropriate, functional, and based on the assessment results, student's strengths and interests and individual characteristics of ASD. The IEP process and procedures for eligible special education students in West Virginia, including the vital role of parents in the development and implementation of the IEP are found in Policy 2419. Many factors must be considered in developing individualized goals for students with ASD. Although individual goals will vary for each student based on their age, diagnostic characteristics and ability level, research has revealed that attention paid to the areas below may increase the student's ability to benefit from the educational experience.

Based on the results of the student's evaluation, goals may be written in one or more of the following areas:

- Attention
- Imitation
- Communication
- Social development
- Play
- Cognitive Development
- Appropriate behaviors
- Sensory and Motor development
- Adaptive Behavior
- Recreation/Leisure/Physical Education

In writing clearly defined outcomes or goals, the IEP Team should consider the following:

- Have meaningful, functional outcomes or IEP goals been identified for the student?
- Are the conditions in which the goal is delivered appropriate, specific, and tailored to individual learning style?
- Were family members involved in identifying goals to be addressed at home and school?
- Are the outcomes developmentally significant and appropriate for the student?
- Have the characteristics of the child with ASD been considered?
- Do the goals promote educational gain and success?
- Do the goals allow for the learned skills to be used in other settings (home, community) and with a variety of people?

A review of goals would not be complete without a discussion of the importance of programming for the generalization and maintenance of newly acquired skills. Generalization is the ability to demonstrate a learned behavior or skill in a new or novel way, setting, environment, time or date or among different individuals and materials. Maintenance, on the other hand, is the ability to demonstrate a skill over time. The ability to generalize and maintain meaningful skills that can be practiced and utilized within, as well as outside of, the classroom is essential to the success of each student's program. Meaningful tasks enhance the student's independence, give more opportunity for personal choice, and allow for more freedom in the community. Thus, the classroom teacher needs to work closely with the student's family as well as the support staff to ensure that new skills and desired behaviors can be practiced in all settings, at home with family members, at school with peers and school staff and in the community.

Summary Box: Clearly Defined Goals
Parents are involved in identifying goals that can also be practiced at home.
Goals have clearly defined entrance and exit criteria, are developmentally appropriate, functional, and based on the assessment results, the student's strengths, and interests, as well as the individual characteristics of the student.
Goals are individualized to the student and promote educational gains.
The team has considered these skill areas based on the evaluation results and the identified needs of the student: • Attention • Imitation • Communication • Social development • Play / Leisure • Cognitive development • Appropriate behaviors • Sensory / motor development • Adaptive behaviors
The goals allow for generalization and maintenance of newly acquired skills at home, at school and in the community.

Component 4: Structuring the Environment

Although all students thrive on routine and predictability, students with ASD are especially sensitive to changes in the environment or routine. Although the level of structure needed for each student will vary based on their age, diagnostic characteristics and ability level, research has revealed that effective educational programs for students with ASD have structured environments which include:

- Physical Structure
- Social Structure or Environment
- Routines
- Visual Supports
- Contingency Mapping

Just as important as providing visual supports, is implementing them correctly. This process for both educators and students is direct explicit instruction. See resources at the end for guidance and support in effective implementation.

Physical Structure: Physical structure refers to the way each area in the classroom or school is set up and organized. Sensory components of the environment can be a barrier to participation for children with ASD due to sensory processing differences. The student with ASD may find the school or classroom can be a confusing and overwhelming place. To help students with ASD perform, the classroom should be set up and organized with clear physical and visual boundaries. Boundaries such as carpets, bookcases, dividers, or study carrels are frames that visually identify an area and help reduce the visual complexity of the usual classroom. Because students with ASD have difficulty ignoring irrelevant stimuli, teachers need to be aware of the competing stimuli to which students are exposed while completing classroom activities such as excess noise, lighting, motion, etc. (Martin, 2022).

Students with ASD often have difficulty processing complex sensory input (e.g., rapid, changing, or unpredictable) and yet have relative strengths in the processing of simple sensory stimuli (e.g., static, repetitive, predictable) (Martin, 2022). By providing a specific location for quiet activities and individual work activities the sensory complexity of the classroom can be reduced. When planning the physical structure of the classroom, it is important to consider and decrease visual and auditory distractions, such as bright lights and noises, e.g., bells, student's loud voices, chairs scraping on the floor and the humming of overhead projectors, lights, or computers.

It is important to understand that students ASD are likely to have difficulty focusing on the teacher unless competing visual distractions are minimized (Martin, 2022). Although each student with ASD is unique, there are classroom environmental features that can be beneficial for all students (Martin, 2022).

- Classroom space should be well-defined, with distinct areas for independent work, group work, and leisure activities, and a separate area that students with ASD can go to when they become overstimulated.
- Only materials needed to complete the activities assigned to each area should be available in that area.
- Ideally, each area should have its own dimmable lighting. If excessive natural light cannot be blocked by window blinds, small carpets should be placed in activity areas to prevent glare on vinyl or linoleum flooring.
- When teachers need students' attention to be focused on them, it is important that their seats are arranged to face the teacher with no competing distractions nearby.
- Wall displays should contain only relevant information so that students can still gain content knowledge if they become distracted and focus on visual displays instead of the teacher.

- Adequate spacing to allow for personal space preferences, such as sitting at least twenty-four inches from another person; and
- Clear and consistent organization of materials, for example, by color coding and labeling (with written words, pictures, or both).

It is important to note that all classroom structures and routines need to be individualized to each child and tailored to their individual needs according to their educational plan. An example of a student work center can be seen in Figure 1 below.

Figure 1: *Example of Student Work Center*

Routines: All children thrive with routine. Students with ASD especially are more socially responsive and attentive to learning in the classroom when information is presented in a highly predictable and routine manner. They can also become easily overwhelmed at even minor changes in their daily schedule or routine. To build independent work skills and to create a comfortable environment in which the student is ready to learn, develop and teach within routines. For example, a routine for independent seatwork may be as simple as "first we work", and "then we take a break". A routine for large group instruction might be, first, the teacher lectures; second, the students do group practice problems, followed by independent seatwork; and third, take a break. Routines are also effective in teaching functional, leisure and vocational skills. Of course, routines can become problematic if the student begins to demonstrate an obsession for sameness that results in negative behaviors when change occurs. To decrease the stress, plan and prepare the student for potential changes in the routine by utilizing transition strategies, role playing and visual supports systems.

Visual Supports: Peer-reveiwed research indicates that individuals having autism may benefit from using visual aids to help with communication and comprehension. 6a and 6b show examples of visual support for routines. Students with ASD have strong visual skills. Visual organization of instruction and materials allows the student to utilize these visual learning strengths. Examples of helpful visual supports may include the use of activity schedules and calendars, posted rules, choice boards and other organizational methods as appropriate for individual students. Some examples are shown below in Figures 2 and 3.

Figure 2: *Example of Visual Support Class Schedule*

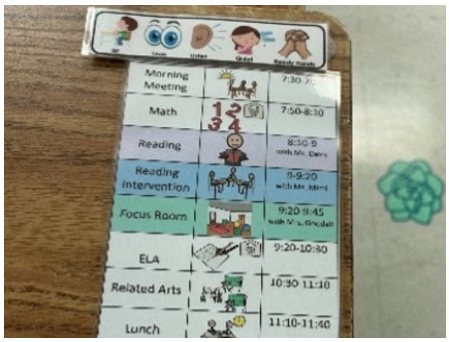


Figure 3: *Shows an example of an individual schedule in picture form. This type of visual support is another effective way for the student to organize the day's activities.*

Activity Schedules: A set of pictures or words that cue a student to participate in an activity. Depending on the student's age and ability level, an activity schedule may be a three-ring binder with only one activity on each page, it may be a partial or full day picture schedule, or it may be as complex as a day timer or personal digital assistant (PDA). Mini schedules are a set of pictures or words that cue students to the individual steps involved in a complex task. Figure 4 shows an example of a handwashing activity schedule.

Choice Boards and Menus: A set of pictures or words that visually communicate to the student with an ASD what materials, rewards or tasks are available to choose. Choice boards can be effectively utilized to present a menu of leisure activities, work or tasks, restaurant or food selection, work areas, places to visit, songs to sing or any other activity that may be a part of the student's life or education. Choice boards may help reduce frustration caused by communication difficulties, while also motivating students through task or activity choice. Figure 5 provides an example of an activity/choice board on reinforcers.

Figure 5: *Activity/choice board example*

Visual Organization: Other visual organizational methods may include organizing and labeling materials in the classroom or in the student's locker or book bag, providing cue cards for rules and checklists for tasks, homework or learning materials, as well as contingency mapping. Figures 6 and 7 show examples of student task box classroom organization and a contingency map example.

Figure 6: *Individual Student Task Boxes*

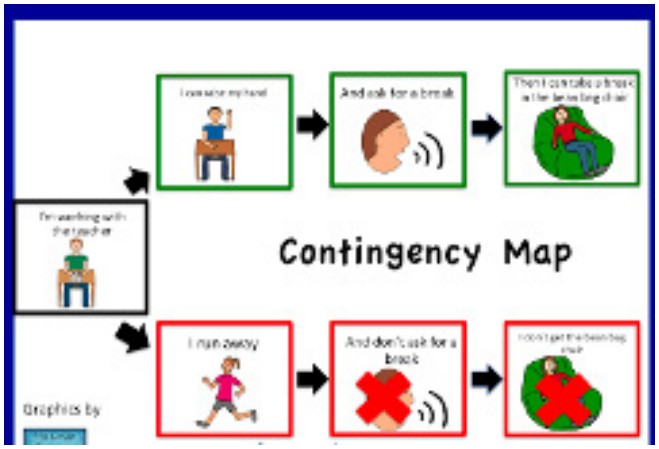


Figure 7: *Contingency Map Example*

Summary Box: Structure the Environment
The environment is set up with clear physical and visual boundaries, which allow the student to understand where different activities take place and where materials are kept.
Visual and auditory distractions, such as bright lights and loud noises, have been considered and minimized.
Instruction and materials are visually organized to allow the students to know what is expected and to increase independence.

Summary Box: Structure the Environment
Examples of visual organization include the use of schedules and posted rules.
A predictable routine with a schedule is used.

Component 5: Effective Teaching Strategies

In addition to the use of structure, visual supports and routine, programs that result in educational progress for students with ASD also utilize motivational strategies and teach skills in a highly structured method either in a one-to-one or small group format, with minimal distraction, attention to specific details of the skill and a focus on consistency, repetition, and predictability relative to the individual needs of the student. This section addresses such strategies and provides practical, low-tech suggestions for teaching students with ASD. For more details on each strategy see the interventions section below and the handout appendix of the document.

When choosing an intervention or teaching strategy, remember that no single approach is likely to be right for every student; rather, teachers may need to utilize a wide variety of teaching strategies for their students with ASD. Further, strategies may need to be modified to fit the developmental level and educational placement of the student. As each student is an individual, it is essential that teachers adapt teaching strategies to meet the student's individual interests, strengths and needs. The intervention methods chosen should also allow the student to demonstrate progress toward his/her IFSP outcomes or IEP goals.

Motivation and Reinforcement: Having restricted or different interests is inherent to ASD, therefore students with ASD can require the use of explicit reinforcement systems when other students may not. Most expectations and consequences in school settings rely on social understanding, which can be challenging for students with ASD. It's common for students with ASD to respond differently to social attention or consequences when compared to other students.

Understanding what motivates each student is critical when working with students with ASD because it leads to the ability to create effective reinforcement systems and decreases the risk the student will engage in disruptive behaviors. Some of the evidence-based strategies to motivate students with ASD are providing choices throughout the day, interspersing tasks during instruction, and using Active Student Responding Techniques (Meindl et al., 2020).

Making Choices: An effective practice to increasing and maintaining motivation in students with ASD is to provide numerous opportunities for the child to make choices throughout the school day. This provides the student with a sense of accomplishment, independence, and control which can have a positive impact on behavior, social interaction, and academics *(Meindl et al., 2020)*. Below are some examples of opportunities to give the student choices:

- Where to sit
- Whether to use a pencil or pen for written work
- What book they want to read for quiet time
- Which food they want to eat first for lunch
- Giving a choice of what kind of reward after a task completion

Providing choices can be easily incorporated into the classroom for all students, making the practice more likely to become habit for the teacher. This habit has been shown to be effective at decreasing problem behaviors and can serve to improve reinforcement.

A **reinforcer** may be positive (giving a reward) or negative (taking away something undesired). Individual reinforcers can be identified through observation of the student's free time preferences, asking the student or parent directly and by presenting choices, and my conducting preference assessments. Some potential reinforcers may include activities, social opportunities like time with a peer or adult, tangibles such as preferred items, and or edibles. An example of a reinforcement assessment may be found in the handouts section of this document.

Task Interspersal: The goal of task interspersal is to include and embed mastered skills into new or challenging skills to improve engagement and motivation to complete the task. This will increase the success rate by including tasks the student can do well and therefore include a higher number of opportunities for praise and reinforcement. If only challenging tasks are presented, there will be less opportunities for success, praise, and reinforcement and the student may exhibit more frustration (Meindl et al., 2020, Planer et al., 2018).

Active Student Responding: This strategy involves providing all students in the classroom with frequent opportunities to respond to class content. Two common strategies used for this practice are choral responding and response cards (Meindl et al., 2020). With ***choral responding***, all students respond in unison to a short-answer question. With ***response cards***, students hold up a card with the correct answer to a question. Both strategies allow instructors to provide feedback as a class and individually *(Meindl et al., 2020; Nagro et al., 2016)*.

Teaching Strategies for Skill Mastery: When the student does not have a skill in his repertoire or does not demonstrate a skill often enough to provide evidence of mastery, it is important to remember that a wide range of teaching strategies may be used to meet an individual student's needs.

- **Discrete Trial Teaching (DTT)** is a structured teaching strategy, used to teach tasks or lessons that have been broken down into their simplest teachable components. It consists of four components: the instruction, the student's response, a consequence, and a brief pause.
- **Pivotal Response Training** utilizes the discrete trial paradigm in lessons that are student directed. It also encourages teachers to create lesson plans and to work within the student's preferred activities.
- **Shaping**, which is the reinforcement of successive approximations of the target behavior, is helpful when the student does not initially have the desired skill in her repertoire.
- **Prompting** provides students with extra help to achieve the desired response. Strategies may include verbal prompts, modeling, physical or gestural prompts and the use of positional cues. Prompts can be used at the same time as instruction, during the student's response to help decrease errors or after the student's incorrect response to demonstrate the correct answer. Although prompting strategies can be helpful in teaching new skills, it is essential to fade these prompts over time to avoid the student becoming dependent on the prompt. See Prompt Hierarchy Handout in Appendix G
- **Task/Activity Analysis** is the analysis of the demands of a task, how a task is accomplished, including a detailed description of both manual and mental activities, task and element durations, task frequency, task allocation, task complexity, environmental conditions, necessary clothing and equipment and any other unique factors involved in or required for one or more people to perform a given task or activity. Task/Activity analysis emerged from research in Applied Behavior Analysis (ABA) and Occupational Therapy (OT) and still has considerable research in that area *(American Occupational Therapy Association, 2020; Creiton, 1992)*.

- **Chaining** is the process of breaking down a skill to be learned into small steps using task analysis. Parts of a chain are referred to as links. The learner's skill level is assessed by an appropriate professional and is then either taught one step at a time while being assisted through the other steps forward or backwards or if the learner already can complete a certain percentage of the steps independently, the remaining steps are all worked on during each trial total task. A verbal stimulus or prompt is used at the beginning of the teaching trial. The stimulus change that occurs between each response becomes the reinforcer for that response as well as the prompt/stimulus for the next response without requiring assistance from the teacher.

Academic Strategies

Most students with ASD require some sort of academic modifications. Modifications are diverse and range from altering the way in which materials are presented to modifying how students indicate competence of academic concepts. Graphic organizers, handwriting modifications and priming, as well as assignment and test taking alternatives are useful strategies to consider for students with ASD.

- **Use of graphic organizers**, such as semantic maps, Venn diagrams, outlines and charts help students with ASD organize and visually represent important concepts.
- **Handwriting modifications**, for students with fine motor difficulties, may involve responding orally, keyboarding, answering questions in true/false format, transcribing into tape or digital format or using a scribe.
- **Priming** refers to the process of preparing the student for an activity in advance of its completion. Previewing an upcoming activity helps to decrease the stress associated with change and the unknown. Some examples of priming may include reviewing an upcoming worksheet or activity; or going over an outline of what will be covered in the next section of a class, the next day or in the next hour. Priming typically occurs close to the activity and can occur at home or in school.
- **Assignment and test taking modifications** should match each student's specific need. Some examples of modifications include additional time, advanced practice/priming, having the assignment /test read aloud, reduced number of items, a sample problem example, multiple choice versus essay format, keyboard versus handwritten.

Communication Strategies

The communication abilities of students with ASD vary greatly, from students who are preverbal or nonspeaking to students with amazing expressive vocabularies, and from students who have very limited receptive abilities to those who can understand complex conversations and instructions.

For preverbal and nonspeaking students with ASD, a communication program may focus on teaching the student to communicate through gestures, speech and/or an augmentative or alternative communication (AAC) system. Alternative and augmentative communication systems such as sign language, visual symbol systems, communication boards, Picture Exchange Communication system (PECs), and voice output devices with dynamic display can provide an effective format for allowing students to communicate their wants and needs, participate in activities, and interact socially in any setting. A combination of these systems may be utilized to achieve optimal communication. AAC is most effective when implemented early to ensure a method of reciprocal interaction and a system for teaching a variety of communicative intents such as requesting, refusing, commenting, asking questions, and social interaction. **When determining the best AAC system to use with a student, a complete speech and language evaluation by a speech-language pathologist including speech sound production, comprehensive language skills, both receptive and expressive, and feature matching (matching the appropriate array of AAC options and features relevant for meeting the student's skill level and needs) will ensure the system meets the student's individual communication needs. Physical, cognitive, and visual skills should also be evaluated during this process by an occupational and/or physical therapist.**

Whether teaching a student to communicate through gestures, speech or an AAC system, new skills should generally be introduced in quiet, non-distracting environments, with generalization occurring in more natural contexts where natural cues and reinforcements are available to make the skills meaningful and spontaneous. With all forms of communication, consistent modeling and repetition of target vocabulary are vital components of learning. Utilize student interests to help motivate the student to initiate and use the communication system. For example, if a student has a favorite toy or book, the teacher may keep the material just out of reach but within visual sight of the student; thus, encouraging the student to request the wanted item using the communication system. If the student likes to spin, target "go" and/or "stop" while spinning with the student. All communicative attempts and initiations should be praised and encouraged. A communication system must be introduced during fun, enjoyable activities, not brought to the student when they are upset or in crisis. While communication is important during these times, this is not the time to learn to use a communication system. Communication should be rewarding.

In contrast to the preverbal or nonspeaking student, many students with ASD can utilize complex language. However, these students, along with their nonspeaking peers, often demonstrate a significant impairment in pragmatic language. For example, students with ASD often struggle with such skills as having a social conversation; perceiving, understanding, and using gestures, facial expressions and body language; initiating, maintaining and closing conversations; as well as understanding and using social conventions and rituals. Pragmatic communication skills are an important component of the student's educational program effectively taught through direct instruction as well as through social skill instruction (See the section on Social Development Strategies below for specific instructional strategies). In addition to difficulty with pragmatic language, students with ASD may also have difficulty understanding and comprehending complex and abstract language.

When working with a nonspeaking or verbal student with ASD, it is important not to assume understanding or to assume the student does not understand. Teachers must closely monitor the student for receptive comprehension. Keep the individual's language and auditory processing skills in mind when determining whether to use single-step or complex, multi-step directives. Clearly state instructions, indicating what the student is expected to do rather than telling the student what not to do. Additionally, use proximity, gestures, and visual supports to help enhance and clarify the spoken message.

While the content of language and communication instruction is similar for all students, each student will display diverse strengths and challenges, resulting in various strategies, delivery methods, and goals needed. Work with the speech language pathologist to develop a comprehensive communication program.

Social Development Strategies

Most students with ASD want to have friends, fit in and be an active member of the social world. However, they have difficulty reading, understanding, and responding to social cues. Social skills, such as having a social conversation; perceiving, understanding, and using gestures, facial expressions, and body language; initiating, maintaining, and closing conversations; as well as understanding and using social conventions and rituals, are difficult for students with ASD. Because of this deficit in social understanding, students with ASD may say or do things that irritate and offend other people. Fortunately, a variety of approaches have been demonstrated to successfully teach students with ASD to understand and succeed in their social world.

Helping students with ASD to develop social understanding requires both systematic instruction as well as opportunities to practice the skills within naturally occurring routines. Rules, social stories, role-playing and scripts, cue cards and checklists, coaching, modeling, peer tutoring and friendship groups are all effective strategies for systematically teaching social skills.

Depending on training and background, a variety of professionals may have knowledge in teaching social development. Talk with the speech-language pathologist, occupational therapist, school counselor or psychologist, and special education teacher for suggestions on strategies to include social development in the student's IEP depending on the individual needs of the student.

Behavior Strategies
Challenging behaviors, such as self-injurious behavior, stereotypic behavior, physical aggression, tantrums, defiance, and property destruction, are among the most difficult and stressful issues faced by parents and educators of students with ASD. Refer to Component 6: Applying Functional Behavior Assessment and Positive Behavior Support.

Trauma Sensitive Practices
It is estimated that one half to two-thirds of all children experience trauma. Trauma is a response to a negative external event or series of events which surpasses the child's ordinary coping skills. Trauma may include distressing life events such as witnessing violence or the loss of a loved one. Trauma is also experienced with repeated negative events such as bullying at school. Trauma informed care is an approach, based on knowledge of the impact of trauma, aimed at ensuring environments and services are welcoming and engaging for persons who are dealing with trauma. This evidence-supported approach to care started in the field of mental health but is now widely accepted as best practice in school environments. Specific on best practices in trauma informs schools can be found at https://www.nea.org/professional-excellence/student-engagement/trauma-informed-schools. Students with ASD may be at increased risk of experiencing victimization or significant stressors and may have limited coping skills to respond to these experiences.

Sensory Rooms and Student Learning
A sensory room is a controlled and intentionally created space that provides multisensory resources to support a student's sensory needs to enable them to engage in learning. An example can be found in Figure 8 below. Sensory rooms have been a successful support to building a trauma sensitive school environment. The use of sensory rooms has the potential to assist students with ASD with their behavioral goals and ability to attend to instruction.

Effective sensory rooms are tailored to the specific needs of the students using them. However, these rooms typically include several areas for physical movement and to assist students to: calm down, relax or engage in sensory experiences. Sensory rooms can be used by schools as a resource to support student's sensory needs so that they can achieve their learning goals.

Sensory rooms are to be used proactively in a manner that supports and responds to a student's sensory needs. They should never be used reactively in response to problematic, challenging, or maladaptive behavior. Each student using a sensory room must have learning goals and success criteria linked to the use of the room. A student's progress and achievement on learning goals associated with the use of the sensory room must be evaluated and documented in their IEP.

An occupational therapist should direct the evaluation and implementation of student supports in a sensory room. Sensory rooms should only be used by students who have been assessed by an occupational therapist and identified as having sensory needs in accordance with the occupational therapists' recommendations.

Limits on the Use of Sensory Rooms: Sensory rooms must not be used in the disciplining of students. Using sensory rooms in response to the student's behavior may reinforce the student's use of challenging behavior. Sensory rooms are not an alternative curriculum or an alternative to formal education. Sensory rooms are also not alternative play spaces for students who want to be alone or do not want to play outside. Students must be actively supervised while using sensory rooms.

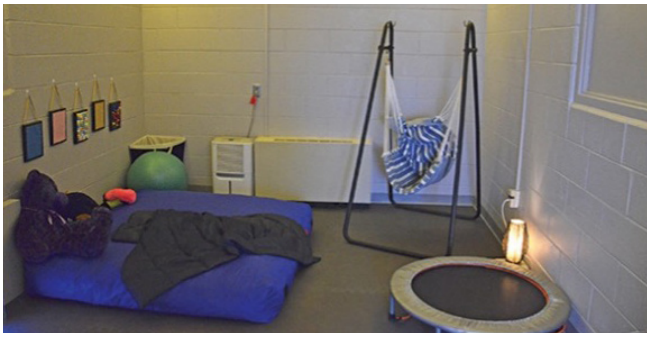


Figure 8: *Sensory Room Example*

Other Considerations

In addition to the previously mentioned teaching strategies, several individual treatment methodologies have been and continue to be developed for students with ASD. For a description of some of the most cited treatment methodologies, refer to the Interventions section of this guidance document. Before choosing a teaching method or specific intervention strategy, Heflin, and Simpson (1998) suggest that the IFSP or IEP

Team consider the following questions:

- Is the treatment evidenced-based and published in peer-reviewed journals?
- Are the student's strengths being considered as well as concerns?
- Is this treatment within the professional's scope of practice and education to implement?
- Does the information regarding effectiveness come from a variety of sources?
- Are the studies validating effectiveness of high quality?
- Is empirical validation available, or does most of the support come from personal testimonials?
- Do the proponents claim that the option will help almost everyone with autism?
- How does this treatment rate in terms of restrictiveness and intensity?
- Are there less restrictive/intensive alternatives that may be just as effective?
- Are there options that are better researched than this one?
- Does the treatment ignore the functional communication and socialization needs of the student?

Summary Box: Effective Instructional Methods
Parents and education staff work together to identify appropriate intervention methods.
Intervention methods are consistent across environments (i.e., home, school, community).
Intervention methods, tools, and materials are supported by research and address the areas of strengths and needs of the student.
Intervention methods allow the student to demonstrate progress toward his/her IFSP/IEP goals.
New skills taught are developmentally appropriate and meet the student's individual needs.
Once new skills are acquired, they are practiced in all-natural environments (home, school, community).

Component 6: Applying Functional Behavioral Assessment and Positive Behavior Support

As mentioned before, behaviors such as self-injurious behavior, stereotypic behavior, physical aggression, tantrums and property destruction, are difficult and stressful for not only the child with ASD, but also parents and educators of the student having inappropriate behaviors. Educators and professionals should consider the purpose or "function" of the behavior when adjusting practice and implementing interventions to support the child's social emotional needs (Strickland-Cohen & Simonsen, 2022). Research supports the use of functional behavioral assessments (FBA) or functional analysis and positive behavior supports (PBS) in the treatment of challenging behaviors for students with ASD (Iwata & Worsdell, 2005) and to teach and encourage appropriate social-emotional skills (Strickland-Cohen & Simsonsen, 2022).

There are many reasons why a child may engage in an atypical or inappropriate behavior such as:

- To communicate wants, needs, or feelings when they are unable to do so in a more appropriate manner.
- To satisfy a sensory need or to avoid an unpleasant sensory experience.
- To gain access to a desired item or activity.
- To avoid an undesired activity, person, or item.
- To communicate frustration due to decreased appropriate social emotional skills such as coping and self-soothing abilities.

Functional analysis allows a person to understand what function a student's problem behavior serves and then teach appropriate skills, using PBS, to meet this need. The FBA process is a team-based process, that is not a form, but a method of data collection and analysis from multiple professionals.

Summary Box: Effective Instructional Methods	
Examine patterns of inappropriate behavior through a **records review** of educational notes, therapy documentation, etc.	A clear description and definition of the contextually inappropriate behaviors
Conduct **interviews** with the student (if possible), family members, educators, and other professionals to describe the experience of the behaviors from all points of view	Document aspects of the environment (such as time, events, persons involved, sensory environment, etc.) that trigger the behavior **(the antecedent)** and what reinforces or maintains the behavior **(the reinforcing consequence)**.
Directly observe the behavior to document levels and patterns of current behavior • it is best to observe in multiple environments, at multiple times, and with multiple observers contributing to data	Identify the function of the behavior (what does the child "gain" or "get" by engaging in this behavior?) • e.g., escape/avoid specific stimuli, obtain a desired item or opportunity, maintain current state or environment, for example
Summarize the data with the IEP team and other stakeholders to inform FBA outcomes	

Note. Table adapted from PBIS.org and Strickland-Cohen & Simonsen, 2022 "Critical Features of an Effective FBA."

Goal identification: The first step in the positive behavioral support process is to determine the goals of intervention. Preliminary work should include:

- developing a profile of the student's strengths and needs,
- identifying the team members who will be involved in behavioral support, and
- targeting specific settings and situations which require intervention.

Awareness of a student's strengths and needs will help the team determine intervention goals and support the student.

Defining Target Behaviors: To gather data consistently and monitor the outcomes of interventions, specific target behaviors and objectives must be identified. Target behaviors should be defined in observable and measurable terms and be agreed upon by the entire IEP team, including the parent(s)/family and the child (if able). The team should establish goals for appropriate behavior and criteria for determining the success of the intervention based on estimates of the frequency, duration or severity of the behaviors that are currently occurring. Objectives may involve increasing desirable and appropriate behaviors, eliminating, or reducing problem behaviors to acceptable levels, and working collaboratively for the IEP team to support appropriate behaviors consistently. Teams should keep in mind the broad goals of intervention. They will guide the team in not only targeting behaviors for reduction, but in identifying skills that contribute to the overall quality of the individual's life (e.g., engaging in new activities, developing friendships).

Data Gathering and Collection: Effective intervention is based on a comprehensive understanding of the focus student and environmental circumstances influencing his or her behavior. A variety of data collection methods, ranging from highly precise and systematic to relatively informal, have been developed to obtain this information. Teams implementing FBAs need to decide which tools and methods will be most useful given the nature of the student's behavior, sources of relevant information, circumstances in which data must be collected and time and resources available. In general, it is important to gather information from multiple perspectives and across a range of settings, activities, and situations. Gathering data should be conducted as a collaborative process and is not necessarily the responsibility of one team member (e.g., a teacher or behavior specialist). It may be beneficial to develop an action plan with specific timelines and responsibilities to guide information gathering.

Step 1: Identify the Behavior

1. Define the behavior of concern (be specific).
2. How often (frequency) does it occur? How long (duration) does it last?
3. How intense is it (on a scale of 1-10, compared to rating on a similar behavior)?
4. Do frequency, duration and intensity vary by incident, location, or person?
5. When/where/with whom are the behavior most likely to occur?
6. When/where/with whom are the behavior least likely to occur?
7. What is the escalation pattern of the behavior?
8. Were there any prior attempts to change? What happened during these attempts?

Questions to Consider:

- What would increase or strengthen the student's friendships and social support?
- How can participation and inclusion in the student's home, school and community be increased?
- What would increase the student's opportunity to exercise appropriate choice making and control aspects of his or her life?

- How can the student's self-esteem and confidence be strengthened?
- What barriers might interfere with the student's progress?

The positive behavioral support process is most effective when implemented as a collaborative process. Team members work together to gather information, analyze patterns, generate the support plan, and implement strategies. Strong teams will include individuals responsible for supporting students and willing to commit time and energy to making the intervention work.

Reviewing Records: The purpose of reviewing information generated from records is to obtain insights into factors affecting the person's behavior. The following sources of information may be relevant in a record review:

- diagnostic and medical records
- psychological information
- assessments from therapies (e.g., occupational, physical, or speech therapy, etc.)
- social histories
- developmental profiles
- previous behavior management programs
- individualized education programs (IEP)
- individualized family service plans (IFSP)
- anecdotal records
- incident reports/discipline summaries

Guidelines for Data Collection

- Define behavior in observable and measurable terms.
- Insure the reliability of the behavioral definition.
- Select a data collection system that fits behavior and circumstances.
- Provide training for the individuals collecting data.
- Collect data across people, time, and circumstances.
- Analyze trends and patterns in the data.

Other assessments may also produce valuable information for better understanding of an individual's behavior. For example, medical evaluations may provide insight into physiological issues affecting behavior. Academic, vocational, occupational therapy, or speech-language assessments may assist a team in evaluating a student's current capabilities and more effectively selecting replacement skills. Reinforcer inventories may help clarify the functions of behavior and assist teams in identifying strategies to motivate student performance. Assessment tools that evaluate broader environmental factors affecting student behavior (e.g., curriculum, physical environment, classroom management) may also be extremely useful in the functional assessment process.

There are many methods, both standardized and non-standardized, formal, and informal, to collect data based on records review, observations, and developmental status. Examples for methods of recording data can be found in the handouts section and appendices.

Step 2: Identifying Antecedents, Consequences, and Setting Events Maintaining the Behavior

Antecedents (before the behavior occurred)

- In what settings does the behavior occur?
- At what times of day does the behavior occur?
- Does the behavior occur in the presence of a certain person(s)?
- During what activities is the behavior most likely to occur?
- During what activities is the behavior least likely to occur?
- Where were key participants before the behavior occurred? What were they doing and/or saying?
- What were the expectations (of the student and teacher/parent) at the time of the behavior?
- Is the behavior associated with a specific event (e.g., circle time, science, etc.)?
- Do environmental events appear to trigger or support this behavior?
- Can we create a setting in which the behavior is highly unlikely to occur?

Consequences (after the behavior occurred)

- What happens to the student after the behavior?
- Do the surroundings in the environment change because of the behavior?
- What is gained or lost?
- How do others respond to the behavior?
- What did the student gain or escape?
- What did the student say they wanted and/or expected?
- What did the student do, think, feel and/or say?
- What did the key participants do, think, feel and/or say?
- What did the student's friends or peers do, think, feel and/or say?
- If the student had done nothing, how do they think they would have felt?
- Describe strategies or consequences that have helped and not helped decrease the behavior.

Setting Events (that may exaggerate the likelihood of challenging behaviors)
In addition to events immediately preceding and following behavior, broader issues may be important. Setting events refer to conditions or circumstances that alter the probability of a behavior occurring. Such variables may have an indirect impact on behavior.

Examples:

1. Medical concerns (e.g., failing to take regularly delivered medication increases the probability that Johnny will shout in class; when Susie has physical discomfort associated with sitting for long periods of time it increases the likelihood, she will throw down her books and cry)
2. Activity patterns (when the curriculum offers little variety and mostly repetitive tasks this increases the likelihood that Margaret will get out of her seat, wander around the room, and tease peers; Michael will attempt to pull out his hair especially when his schedule is disrupted due to a special activity)
3. Relationships with others (Kevin is more likely to put his head down and close his book when he was reprimanded by a teacher earlier in the day; Darrel is more likely to use profanities when a friend or peer group is present)

Assessments may also produce valuable information for better understanding of an individual's behavior. For example, medical evaluations may provide insight into physiological issues affecting behavior. Academic, vocational, occupational therapy, or speech-language assessments may assist a team in evaluating a student's current capabilities and more effectively selecting replacement skills. Reinforcer inventories may help clarify the functions of behavior and assist teams in identifying strategies to motivate student performance. Assessment tools that evaluate broader environmental factors affecting student behavior (e.g., curriculum, physical environment, classroom management) may also be extremely useful in the functional assessment process.

Step 3: Create and Design the Intervention Plan

Once the maintaining variables have been identified through the FBA, an intervention is created by altering the identified antecedents, consequences or setting events. Effective interventions may include environmental modifications (e.g., visual supports to increase structure), curricular interventions (e.g., alternate setting for instruction) or instruction designed to match the student's identified needs (e.g., social or communication skills).

Effective behavioral support plans (BSP) are designed to:

1. **Prevent** contextually inappropriate behavior and encourage/prompt contextually appropriate behaviors. Preventative intervention includes adjustments to the environment that reduce the likelihood of problem behavior occurring and allow the student to be as independent and successful as possible. Proactive strategies may also include modifying the curriculum, reorganizing the physical setting, and clarifying routines and expectations.
2. **Teach and reinforce** appropriate social-emotional behaviors and academic skills. A support plan should target specific skills that will allow the student to meet his or her objectives in more effective, efficient, and appropriate ways (e.g., communicative alternatives to the problem behavior) and enhance the student's overall independence, integration, and quality of life.
3. **Respond appropriately and consistently** when the student engages in contextually inappropriate behaviors (Strickland-Cohen & Simonsen, 2022). An example is managing consequences (what follows the behavior, not a punishment) so that reinforcement is given for desired behaviors (e.g., use of replacement skills) and withheld following problem behavior, making problem behaviors less effective for the student. Positive interventions use the most natural, least intrusive consequences that adequately address the functions of behavior.

Consideration should be given to:

- Focusing on target behaviors relevant to the social and physical context (specify replacement behaviors for multiple environments if needed)
- Teaching skills where they will be practiced in the natural environment (classroom, playground, grocery store, with different people, etc.)
- Modifying aspects of the supporting settings to promote adaptive behavior (planning for inclusion in a variety of settings and activities)
- Utilizing existing natural reinforcers and contingencies (use self-reinforcement, use everyday activities and people as reinforcers)

Positive Behavior Support (PBS) Plan Process Description can be found in the Handouts section.

Step 3: Implementing the Plan and Monitoring Outcomes

- Once the behavior support plan has been developed, it must be consistently implemented to be effective. Teams may need to use additional resources to implement the plan and train personnel and other support providers. Implementation may require reevaluating existing systems and providing opportunities for staff development.
- A good support plan will fit naturally within the routine and structures of the environment in which it is implemented (e.g., the classroom or home). The plan must be "doable" and team members must be committed to its implementation.
- The team will need to document and track changes in the student's target behaviors and evaluate broader lifestyle changes that occur because of the intervention (i.e., based on the original goals determined by the team). Teams will want to use objective measures to document success.
- If minimal progress occurs in decreasing problem behaviors, increasing replacement skills, or enhancing the student's lifestyle (e.g., providing more opportunities for integration, expansion of social networks), the behavior support plan and the assessment should be reevaluated. It may be necessary to repeat or expand the information gathering process and/or to adjust aspects of interventions.

Summary

Positive behavioral support is a collaborative, problem-solving approach to resolving serious behavioral challenges and promoting improved quality of life. It reflects not only a shift in methods to address problem behavior, but also changing perspectives on what constitutes appropriate intervention and the roles of individuals with disabilities, families, educators, and other service providers in the educational process. To the greatest extent possible, elements of PBS should be infused within existing educational structures and processes.

Component 7: Assessing Intervention Through Data Collection

Prior to using any intervention, it is important to record a baseline of functioning in the area of need. That is, it is important to assess or determine how the student is currently functioning in the area(s) of need. Once the goals are established, data are recorded to monitor progress in the program designed to improve the target area. The data are analyzed to determine if a lesson or educational intervention is effective and what changes in the lesson or educational intervention may need to be made. The IFSP or IEP Team must determine how often data will be recorded and the criterion for determining when an intervention is unsuccessful and must be abandoned. Ongoing assessment of the student's skill via the data collection system can help determine the next set of goals.

It is crucial that each professional on the IEP team have a systematic data collection system to track progress, strengths, and weaknesses. Intervention strategies should be assessed and reassessed often. Examples of a variety of data collection methods can be found in the handout section of the document and within various print and online resources. It is encouraged to explore current peer review research relevant and appropriate to the type of data of being collected.

Summary Box: Data Collection
Prior to intervention, baseline data on functioning level in the area of need is collected.
IFSP/IEP Team determines how often and in what format data is recorded.
A criterion is set for determining when a particular intervention is unsuccessful.
Data are recorded to monitor progress in the program designed to improve the area of need.
Data are recorded to identify problems or lack of progress.
Ongoing assessment of the student's skill via the data collection system determines the next set of goals (if appropriate).

Component 8: Transition

As discussed earlier, students with ASD often have difficulty with changes in the routine or the environment; this is especially true during unstructured periods, such as a planned or unplanned transitions. Consequently, students with ASD often need additional support and instruction in the skills that will allow the student to be as independent as possible during transitions, such as those occurring from:

- Activity to activity Transition Time: Helping Individuals on the Autism Spectrum Move Successfully from One Activity to Another: Articles: Indiana Resource Center for Autism: Indiana University Bloomington
- Home to school
- School to home
- Least Restrictive Environment Transitions
- One grade/school to the next grade/school
- School to post-school environments

Activity Transitions: When planning for an activity transition, it is important to prepare the student for upcoming changes. When transitioning from activity to activity, provide verbal and visual warnings before ending an activity and use visual supports, such as schedules, to inform the student as to which activity will occur next. Transition objects, which provide a visual cue, as to where the student is going, are often helpful for students transitioning from one activity to another.

Environmental Transitions: When transitioning a student into a new grade, school, community, job, or post-school environment, it is important to prepare the student for the upcoming change. Assess the new environment to determine what skills the student will need to be independent and successful and pre-teach those skills to the student. Talk with the student about the new environment and, if possible, allow the student to visit the new environment. If a site-visit is not possible, consider videotaping, taking pictures, writing a social story, and compiling a list of expectations for the new environment. Additionally, meet with the staff members of the next setting to discuss the student's strengths and particular learning needs. Prepare the staff in the new setting by providing them with information on ASD, arrange to have them visit or learn about the student's current placement and if possible, arrange a meeting between the student and the new staff. In these ways, when typical and major life transitions are systematically addressed and planned for, students with ASD are more likely to experience success, have confidence and be more independent, creating a positive experience for everyone involved.

Post-School Transition: When preparing for transition to adulthood Autism Speaks suggests: When considering transition services, it is important to start early and to start looking at what adult life will include - a job, post-secondary education, a day habilitation program, living outside of the family home? Once the goals are decided upon (and they can change), a transition plan will be developed that builds the skills necessary for your child to be able to achieve these goals in adult life. Preparation for the transition process happens in school. Students with autism have the right to receive comprehensive transition services. Under IDEA, school districts are responsible for providing the supports they need to meet their goals for after high school to the best of their abilities.

Each student's Individual Education Program (IEP) process must include transition planning services for all special education students at age 14. They must be invited to the IEP meeting when transition planning is being discussed. **The funding and the services available through IDEA are not available once the student has received a high school diploma or aged out of the school system (depending on the student's needs, ages 18 – 21). It is crucial that these services are set up while the student is in the school system.**

Areas that need to be considered in the transition plan and ways to support transition to adulthood include:

- inviting outside agencies who may provide wraparound services (including waiver, DRS, mental health, colleges/universities admission staff).
- work based job potential employers.
- addressing family and individual needs and interests.
- teaching self-advocacy and supported decision making (teaching the individual and the family to appropriately communicate to guide and support independence).
- teaching function.
- functional independence skills appropriate for the individual (driving, independent living, etc.).
- preparation for real-life challenges including social interactions in the community (stores, medical appointments, restaurants, events, public transportation, faith-based facilities, etc.).

Consider the use of explicit instruction, social stories, independence rubrics (chaining/task analysis) Further resources in supporting those with ASD and transitions can be found at the WVDE's Transition Services website (*https://wvde.us/special-education/wv-guideposts-to-graduation/*).

Summary Box: Transition Planning

PSkills are taught, and support given to allow the student to be as independent as possible during transitions, such as those occurring from:

- Activity to activity
- Home to school and school to home
- One grade/school to the next grade/school (Including IFSP to IEP)
- School to post-school environments

Component 9: Opportunities with Peers

Students with ASD have significant difficulty in social and communicative interactions with others. Consequently, it is important for students with ASD to have regular and planned interactions with same-age peers who have a variety of abilities and skills. Through same-age peers with and without disabilities, students with ASD may observe more appropriate models for social behavior, receive social feedback from peers and engage in more appropriate social experiences than they would in the company of peers with ASD alone. However, it is important to recognize that merely placing a student with ASD in the same place as same-age peers does not ensure acquisition of social and communication skills. Some effective methods for helping students with ASD gain essential social and communicative skills include:

- Structured play or recreational activities
- Peer training
- Teacher prompted and reward interactions between the student with ASD and peers

Opportunities for positive peer interactions during the school day may include:

- Related Arts
- Playground
- Clubs
- Lunch

An example script to use when training peers is as follows:
"There are lots of ways you can be a friend to someone with autism. If you have a friend with autism, you can be a good friend by inviting them to play with you, sitting with them at lunch, and talking with them. You also can talk with a teacher or other adult (like their parents) who knows your friend with autism and ask how you can be a good friend to them. Most importantly you can ask someone with autism what they like and do not like. You may find you have many things in common."

Some resources that help to support opportunities with peers include:

- How to be a friend to someone with autism- Kit for Kids | Organization for Autism Research (*researchautism.org*)
- Peer Based Interventions - *Peer-Based Intervention and Autism Spectrum Disorders*

Summary Box: Planned Peer Interactions
Structured activities with one peer or in small groups are provided to practice newly learned social, academic, communication, coping and self-help skills.
Opportunities are provided for interaction with peers who have different abilities and skills, which allows for generalization of mastered social, academic, communication, coping and self-help skills.
Student is given support and opportunities to develop friendships with peers in order to initiate and practice social interaction.
Peers are provided with a time and environment where they are comfortable to ask questions and receive age-appropriate information about ASD
Resources, such as videos, books, and pamphlets, on ASD are available for staff, students and families.
Support for the staff is provided as they learn to include the student into activities.

Interventions

This section will cover evidence-based interventions and teaching strategies commonly used with children with ASD.

The evaluation or analysis of the existing research in the literature relating to assessment and the development of educational programs based on that analysis is confusing and difficult at best. The federal Office of Special Education Programs (OSEP) Research to Practice Division recently funded the National Academy of Sciences to study educational interventions for students with autism. Their findings are documented in a report, Educating Children with Autism. This document is a valuable resource that will enhance understanding and facilitate informed decision-making with respect to assessment and intervention for students with autism.

The following interventions are presented as information on the most often cited interventions. Inclusion of information in this guidance document should not be construed as an endorsement of the intervention. Where available, information regarding research efficacy is included.

The CDC has delineated seven categories of intervention approaches that are most commonly researched and utilized in practice with children with ASD. The seven categories are:

1. Behavioral
2. Developmental
3. Educational (see section above for teaching and academic strategies)
4. Social-Relational
5. Pharmacological
6. Psychological
7. Complementary and Alternative

(CDC, 2022, Hyman et al., 2019).

Interventions that are provided through the school system through the school-based professionals are covered throughout the document in various intervention approaches. **Collaboration between all school professionals, including teachers, paraprofessionals, and therapists, is key to the success of these intervention approaches.**

Behavioral Interventions

Motivation and Reinforcement

Having restricted or different interests is inherent to ASD, therefore students with ASD can require the use of explicit reinforcement systems when other students may not. Most expectations and consequences in school settings rely on social understanding, which can be challenging for students with ASD. It's common for students with ASD to respond differently to social attention or consequences when compared to other students.

Understanding what motivates each student is critical when working with students with ASD because it leads to the ability to create effective reinforcement systems and decreases the risk the student will engage in disruptive behaviors. Some of the evidence-based strategies to motivate students with ASD are providing choices throughout the day, interspersing tasks during instruction, and using Active Student Responding Techniques *(Meindl et al., 2020)*.

Making Choices

An effective practice to increasing and maintaining motivation in students with ASD is to provide numerous opportunities for the child to make choices throughout the school day. This provides the student with a sense of accomplishment, independence, and control which can have a positive impact on behavior, social interaction, and academics *(Meindl et al., 2020)*. Below are some examples of opportunities to give the student choices:

- Where to sit
- Whether to use a pencil or pen for written work
- What book they want to read for quiet time
- Which food they want to eat first for lunch
- Giving a choice of what kind of reward after a task completion

Providing choices can be easily incorporated into the classroom for all students, making the practice more likely to become habit for the teacher. This habit has been shown to be effective at decreasing problem behaviors and can serve to improve reinforcement.

A **reinforcer** may be positive (giving a reward) or negative (taking away something undesired). Individual reinforcers can be identified through observation of the student's free time preferences, asking the student or parent directly and by presenting choices, and my conducting preference assessments. Some potential reinforcers may include activities, social opportunities like time with a peer or adult, tangibles such as preferred items, and or edibles. An example of a reinforcement assessment may be found in the handouts section of this document.

Task Interspersal
The goal of task interspersal is to include and embed mastered skills into new or challenging skills to improve engagement and motivation to complete the task. This will increase the success rate by including tasks the student can do well and therefore include a higher number of opportunities for praise and reinforcement. If only challenging tasks are presented, there will be less opportunities for success, praise, and reinforcement and the student may exhibit more frustration *(Meindl et al., 2020, Planer et al., 2018)*.

Active Student Responding
This strategy involves providing all students in the classroom with frequent opportunities to respond to class content. Two common strategies used for this practice are choral responding and response cards *(Meindl et al., 2020)*. With ***choral responding***, all students respond in unison to a short-answer question. With ***response cards***, students hold up a card with the correct answer to a question. Both strategies allow instructors to provide feedback as a class and individually *(Meindl et al., 2020; Nagro et al., 2016)*.

Developmental Interventions

Communication Based Interventions

The communication abilities of students with ASD vary tremendously, from non-verbal students to those with an extensive expressive vocabulary and from students with limited receptive abilities to those who can understand complex conversations. The DSM-5 TR lists three symptoms of communication, including: 1) deficits in social-emotional reciprocity, ranging, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions; 2) deficits in nonverbal communicative behaviors used for social interaction, ranging, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication; 3) deficits in developing, maintaining, and understanding relationships, ranging, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers (American Psychiatric Association, 2013). From this description, it is clear the language and communicative abilities of students with ASD is markedly diverse. The presence of fluent speech prior to age five is a critical predictor of IQ scores, language measures, adaptive skills and academic achievement in adolescence (National Research Council, 2001, p. 47). Thus, the importance of early intervention in communication skills cannot be understated. However, like much of the field of ASD, the intervention approaches for enhancing communication skills vary tremendously and range from traditional, discrete trial approaches to more contemporary behavior approaches using naturalistic language techniques to developmentally based approaches and augmentative and alternative communication strategies.

Some approaches and how they are used regarding communication are addressed below. These include, but are not limited to:

- Discrete Trial Teaching (DTT)
- Naturalistic Behavior Interventions
- Developmental Approaches
- Augmentative and Alternative Communication (AAC)
- Sign Language-
- PECS (Picture Exchange Communication System)

Sensory-Based Interventions

The sensory features of ASD often referred to as impairments in sensory modulation in which an individual has difficulty regulating and organizing the type and intensity of behavioral responses to sensory inputs to match environmental demands, are widely recognized (Ben-Sasson et al., 2019). Sensory features can be classified into three patterns: sensory over-responsivity (SOR), sensory under-responsivity (SUR), and sensation seeking, with many individuals with ASD showing more than one sensory pattern. These sensory symptoms are neurobiologically grounded. Sensory symptoms are associated with compromised adaptive performance, participation, and performance of activities of daily living, including eating and sleeping. Furthermore, sensory symptoms have been associated with greater severity of restricted and repetitive behaviors and reduced social functioning. They are also associated with increased affective symptoms, particularly anxiety. In addition, sensory symptoms interplay with communication and language deficits and attention competencies. Figure from Butera et al., 2022 p. 245 below.

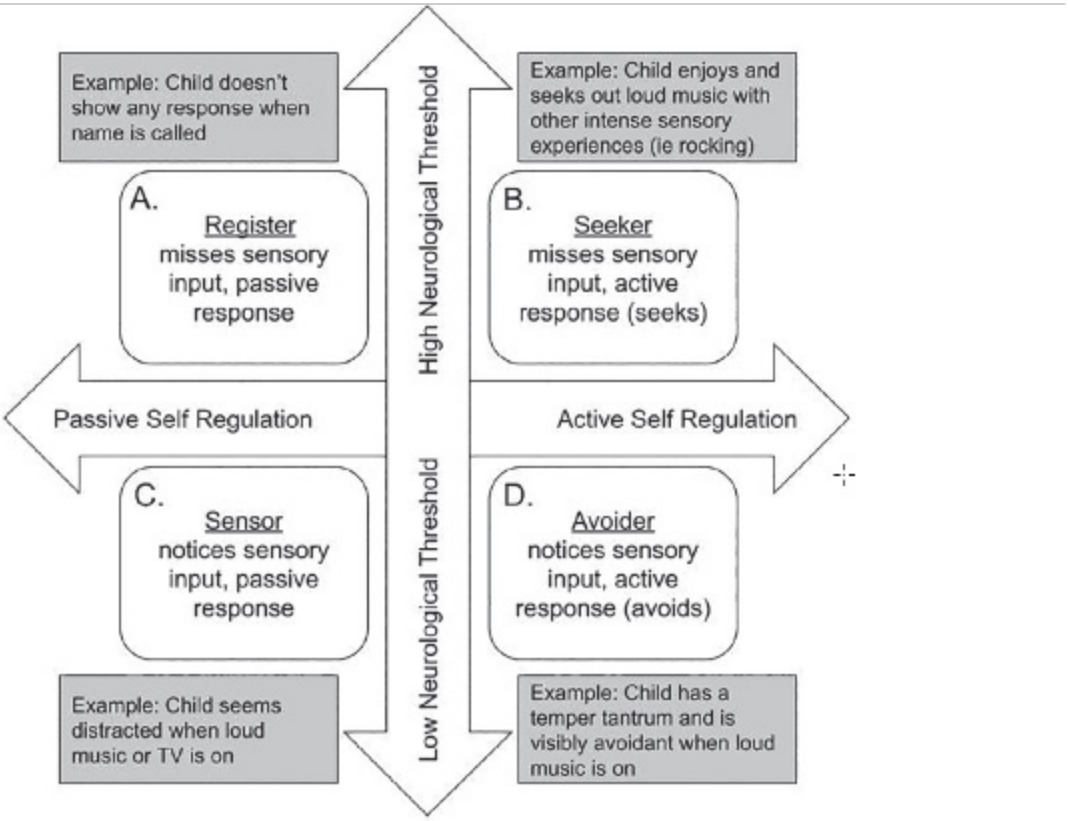


Fig. 1. Overview of Dunn's sensory processing framework. *Note.* The figure, modified (from Dunn, 2014) describes four subtypes of sensory functioning (Register, Seeker, Sensor, and Avoider) which fall at a unique point between two spectrums of neurological threshold and self-regulation.

Sensory-based interventions should only be used for individual children with documented assessment results from an occupational therapist of difficulties processing or integrating sensory information. Processing and integrating sensations are complex and result in individualized patterns of dysfunction that must be addressed in personalized ways. Interventions that do not target the documented patterns of dysfunction can produce ineffective or negative results.

There are several approaches to sensory-based interventions for students with ASD. Since their terms are not always clearly differentiated, they are presented here. The distinctions are important because there are different levels of evidence supporting the effectiveness of these interventions based on type.

Three major categories of Sensory-Based Interventions		
Ayres Sensory Integration Ayres Sensory Integration® (ASI) comes from the work of A. Jean Ayres. Ayres Sensory Integration® is implemented by an occupational therapist with advanced training and is conducted according to principles described in a published fidelity measure. Typically, ASI utilizes multiple sensory domains during therapeutic interventions and is done in clinic-based (rather than school-based) settings. It can be in school settings if in an environment that is rich in tactile, proprioceptive, and vestibular opportunities.	**Sensory-Based Strategies** Sensory-based strategies focus on how an individual responds to sensory input (modulation). A sensory technique is an application of particular sensory stimuli, or the provision of materials and activities that provide types of sensory stimuli by direct application to the child's body (such as brushing the child's arms, having the child listen to music while wearing headphones, or having the child wear compression garments) or by placing a child on a therapy ball. The intent of these interventions are to support child functioning and participation through either compensation or remediation. Sensory-based strategies are widely used in school settings.	**Classroom and Environmental Modifications** Environmental modifications include altering sensory aspects of environments such as dimming lights and sensory-based strategies integrated into the classroom activity context.
Evidence There is moderate evidence to support ASI in children with ASD *(Kashefimehr et al., 2018, Schaaf et al., 2018, 2014; Watling & Hauer, 2015; Dunbar et al., 2012).*	**Evidence** There is minimal evidence supporting the use of ball chairs, seat cushions, brushing, weighted vests, and swinging when used as stand-alone sensory interventions or when used in the classroom *(Mische Lawson et al., 2022; Bodison & Parham, 2018; Pfeiffer et al., 2018; Bestbier & Williams, 2017). Watling & Hauer, 2015; Schoen et al., 2015; Gee et al., 2015; Lin et al., 2014; Murdock et al. 2014; Benson et al., 2011; Fedewa & Erwin, 2011; Hodgetts et al., 2011).*	**Evidence** There is moderate evidence to support the use of in-classroom sensory activities such as yoga & Social Stories *(Miller-Kuhaneck & Watling, 2018); Weaver, 2015; Pfeiffer et al., 2018).* *Classroom sensory modification (Kinnealey et al., 2012)* *There is moderate evidence to support using an individualized sensory activity schedule (SAS) and classroom modifications (Benson et al., 2022; Bodison & Parham, 2018; Ismael & Lawson, 2018).*

In summary the most effective sensory-based interventions have a moderate level of effectiveness. Ayres **Sensory Integration®** (ASI) has moderate effectiveness when done with fidelity to treatment criteria in a clinical situation. This approach to intervention may be challenging to provide in a school setting. There is mild to moderate support for the classroom and environmental interventions, with the effects varying across specific types of interventions. There is minimal support for using sensory-based strategies, although some case reports have been positive.

Other Developmental-Based Interventions include, but are not limited to, sensorimotor based interventions to target motor planning, dyspraxia, gross and fine motor strengthening and endurance, handwriting, and balance.

Social-Relational Based Interventions

Social difficulties are among the hallmark symptoms of ASD. Students with ASD often have significant delays in the use of nonverbal behaviors, such as the ability to read and use gestures and facial expressions. Further, students with ASD often struggle to understand social norms and unwritten social rules. These deficits often separate them from their peers and make developing friendships with same-age students difficult. Deficits in the ability to show social and emotional reciprocity and to share achievements and enjoyments with others further limit the student with ASD's ability to connect on an emotional level with others. Fortunately, students with ASD have been found to be responsive to a wide variety of social interventions aimed at decreasing inappropriate social behaviors, while also increasing social engagement with others. Research has shown by increasing social skills, there is a concurrent increase in related skills. Several adult, student and peer interventions have been developed and empirically studied, including Social Stories, Video Modeling, Peer Mediated strategies, Theory of Mind and Social Skills Groups.

Social Stories

An approach developed by Carol Gray, are an increasingly popular strategy for improving the social skills of students with ASD. A Social Story is an individualized short story designed to help the student with ASD understand the social context and expectations of a variety of situations. The methodology of Social Stories is founded on the belief that understanding social rules is an essential part of learning an appropriate social behavioral response. The objective is to teach understanding rather than compliance. The stories are usually written by parents or professionals involved with the student who can write stories to teach specific social situations of concern to an individual student.

- **Video Modeling** - Video modeling utilizes video-taped segments of students, adults or cartoons performing appropriate social - behaviors to improve these same behaviors in students with ASD.
- **Theory of Mind** - An approach that proposes "mind blindness" can be overcome by teaching the individual to "mind read." This teaching includes fostering the development and understanding of social behavior, communication, and imagination. The theory does not provide definitive methodology to accomplish this. Two of the most popular interventions lending itself to this teaching are those of Carol Gray's Social Stories and Michelle Garcia Winner's "I LAUGH" Social-Cognitive Interventions.
- **Social Skills Groups** - Groups that are a broad category of interventions in which a small group of students with ASD are brought together on a regular basis to receive specific instruction in relevant social skills. Social skills groups vary in the frequency and duration of sessions, number and type of students involved, as well as the content of instruction.

Psychology Focused Approaches

Psychological appropriate can help those with ASD cope with common co-morbidities including anxiety, depression, and other mental health issues. One psychological approach includes Cognitive-Behavior Therapy (CBT) that focuses on the learning connections between thoughts, feelings, and behaviors. Collaboration between school based and outside providers is essential in considering and implementing such intervention *(CDC, 2022)*.

APPENDIX A
Definitions

Autism Spectrum Disorders (ASD) Key Terms and Acronyms

ABC Antecedent, Behavior, Consequence
What happens before, during and after the behavior (ABC).

Accommodations
Alterations to the environment, equipment, or format of a curriculum to allow equal access to the content; accommodations do not alter the actual content of the material being taught.

Activity Analysis
Generic and decontextualized analysis that seeks to develop an understanding of typical activity demands within a given culture (AOTA, 2020).

Activity Demands
Aspects of an activity needed to carry it out, including relevance and importance to the client, objects used and their properties, space demands, social demands, sequencing and timing, required actions and performance skills, and required underlying body functions and body structures (AOTA, 2020).

Adaptive Behavior
An individual's manner of dealing with the demands of daily life, including self-care skills, organizational skills, basic interpersonal skills, and conformance to community standards (obeying rules, taking responsibility, etc.).

Antecedent
An event or activity that immediately precedes a behavior.

Applied Behavior Analysis (ABA)
A science that uses the laws of learning to understand and teach behavior. Evidence-based strategies based on ABA take a planned approach to changing what comes before and after behavior to teach socially relevant skills and decrease challenging behaviors.

Assistive Technology
Any device or service that is used to increase, maintain, or improve the functional capabilities of a child with a disability.

Attention
The ability to concentrate as needed.

Attention-Deficit/Hyperactivity Disorder (ADHD)
Any of a range of behavioral challenges in children characterized by symptoms that include poor concentration, an inability to focus on tasks, difficulty in paying attention, hyperactivity, and impulsivity. A person can be predominantly inattentive (often referred to as ADD), predominantly hyperactive-impulsive, or a combination of these two.

Attribution
The ability to connect cause and effect, and to understand why things happen to us.

Appendix A | Definitions

Auditory Processing
How the brain processes and interprets what is heard through the ear.

Baseline
Data collected prior to starting an intervention.

Behavior Intervention Plan (BIP)
A written plan that defines how a setting, the curriculum, and routine will be changed to improve a learner's behavioral success. A BIP spells out how variables that maintain the challenging behavior will be modified and how new behaviors that serve the same function will be taught using positive interventions.

Body Language
Information about a person's thoughts or feelings that is unconsciously conveyed through physical mannerisms.

Cause and Effect
The ability to connect how a certain action leads to a certain reaction.

Cognition
Conscious mental activity, including thinking, perceiving, reasoning, and learning.

Collaboration
Working together for a common goal.

Communication
The deliberate conveying of information to another person.

Communication Disorder
Stuttering, impaired articulation, language, or voice impairment that adversely affects a child's educational performance.

Community of Practice (CoP)
Concept referring to the process of social learning that occurs when people who have a common interest in some subject or problem collaborate over an extended period to share ideas, find solutions, and build innovations. This work is meant to expand knowledge and/or improve practice.

Consequence
An event (positive or negative) that follows a behavior that makes it more or less likely to occur in the future.

Contextual Factors
Those factors in the learning environment that determine whether the student can be successful. Information regarding those factors collected both indirectly and directly, allows school personnel to predict the circumstances under which the problem behavior is likely and not likely to occur. For instance, if the student acts out when given a worksheet, it may not be the worksheet that caused the acting-out, but the fact that the student does not know what is required and thus anticipates failure or ridicule.

Contingency
Something that occurs as a result of another factor.

Appendix A | Definitions

Core Vocabulary
High-frequency vocabulary that makes up 75-80% of the words we use daily. Core words can be used in various situations with various communication partners. A sentence cannot be formed without using core vocabulary, which usually includes pronouns, helping verbs, prepositions, articles, and common verbs. Core words are typically difficult to depict visually. Examples include stop, go, I, you, play, open and help.

Data
Information collected to help make decisions.

Data Based Decision-Making
Instructional decisions based on student performance data.

Data Collection
Any method of recording behavioral data for subsequent analysis.

Dialogue Guides
Tools for building shared understanding and shared implementation efforts through conducting interactive discussions that seek common ground and encourage application.

Discrete Trial Teaching (DTT)
An evidence-based practice taken from the field of ABA that involves a structured, planned approach to teaching. Lessons taught using DTT include a distinct beginning (instruction or other cue); prompt (that may not always occur); expected student response, and feedback or other consequence (reinforcement for correct responses and error correction for incorrect responses). DTT typically involves breaking down skills into small components and teaching them one by one and are generally teacher led.

Duration
How long a behavior lasts.

Early Intervention
The term used to describe the services and supports that are available to babies and young children with developmental delays and disabilities and their families. May include occupational therapy, speech therapy, physical therapy, and other types of services based on the needs of the child and family.

Echolalia
The repetition of sounds, words, or phrases heard in the environment.

Emotional Regulation
Control of emotions, stabilization, ability to recognize your emotional state and make changes as necessary.

Empathy
The ability to understand how another person feels or what he/she may be thinking; sometimes referred to as “putting yourself in another person’s shoes.” Sometimes referred to as theory of mind.

Empirically Supportive Intervention
Educational practices/instructional strategies supported by relevant scientific research studies or research-based “best practice”.

Appendix A | Definitions

Evidence-Based Practice
Educational practices/instructional strategies supported by relevant scientific research studies or research-based "best practice".

Executive Function
A collection of brain processes which are responsible for planning, flexibility, abstract thinking, rule acquisition, initiating appropriate actions and inhibiting inappropriate actions, and selecting relevant sensory information.

Extended School Year (ESY)
Special education and related services that are provided to a student with a disability beyond the normal school year from the district, in accordance with the student's IEP, and at no cost to the parents of the student.

Fading
Decreasing the level of assistance needed to complete a task or activity.

Free Appropriate Public Education (FAPE)
Special education and related services that – (a) Are provided at public expense, under public supervision and direction, and without charge; (b) Meet the standards of the SEA, including the requirements of this part; (c) Include an appropriate preschool, elementary school, or secondary school education in the State involved; and (d) Are provided in conformity with an individualized education program (IEP) that meets the requirements of §§ 300.320 through 300.324 [IDEA 2004 Part B Regulations, §3].

Fidelity of Implementation
Implementation of an intervention, program, or curriculum according to research findings and/or on developers' specifications.

Fluency
A stage of learning, during which a person can perform an activity with little to no thought.

Frequency
How often a behavior occurs during a set period of time.

Functional Behavior Assessment (FBA)
A comprehensive and individualized strategy designed to identify why challenging behavior occurs and the context in which it occurs. Information collected both indirectly and directly allows school personnel to predict the circumstances under which the challenging behavior is likely and not likely to occur. Information collected as part of an FBA is used to develop a behavior intervention plan (BIP).

Functional Communication
The ability to receive or to convey a message, regardless of the mode, to communicate effectively and independently in each environment.

Functional Performance
A term that is generally understood to refer to skills and activities that are not considered academic, i.e., routine activities of everyday living.

Appendix A | Definitions

Function of the Behavior
The function of the behavior may usually be described as an effort to "get something", or to "avoid and/or escape something".

Generalization
Transferring a skill/behavior into other environments.

Graphic Organizer
Strategy for graphically representing concepts and providing links among concepts.

Hidden Curriculum
A term used to describe the unwritten social rules and expectations of behavior that we all seem to know but were never taught.

Hypothesis
An educated guess based on data collected.

IDEA
Individuals with Disabilities Education Improvement Act of 2004
Original passage in 1975; latest reauthorization 2004; federal statute relative to education and services to students with disabilities ages 3 through 21.

Incredible 5-Point Scale
A visual representation using numbers, words, and/or pictures to represent levels of a social behavior and can include supports to help at each level (developed by Kari Dunn Buron and Mitzi Curtis).

Individualized Education Program (IEP)
A written plan developed by a specified group of people who know the child, including parents, that specifies the services and accommodations that the school will provide to a child with a disability.

Individualized Family Service Plan (IFSP)
A written plan developed for early intervention services by the early intervention team, including parents/caregivers, that specifics the services the child will be provided by the team.

Integrated Play Groups
A group that places children with autism and peer partners who have demonstrated capable play experience in a play situation that is guided by an adult facilitator to teach how to play and socialize with each other (based on the work of Pamela Wolfberg, Ph.D.).

Intervention
Specialized activities that target students' individual needs to develop their knowledge or skills in their area of weakness.

Joint Attention
Consciously focusing one's attention on the same event or object as another person.

Least Restrictive Environment (LRE)
A student who has a disability should have the opportunity to be educated with non-disabled peers, to the greatest extent possible.

Appendix A | Definitions

Local Education Agency (LEA)
Refers to a specific school district or a group of school districts in a cooperative or regional configuration.

Linguistic
Related to language.

Mental Health
"a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and cope with adversity" (U.S. Department of Health and Human Services, 1999, p.4). Mental health is not merely the absence of mental illness but the presence of something positive.

Motivation
Wanting to partake of an object or activity. This can be intrinsic (desire within one's self) or extrinsic (externally motivated).

Natural Reinforcers
Reinforcers that are logically related to the task at hand and increase the likelihood of the reoccurrence of the behavior.

Naturalistic Developmental Behavioral Interventions (NCBI)
Evidence-based practices taken from the field of ABA that involve a structured, planned approach to teaching in the natural environment. These practices include incidental teaching, pivotal response treatment, the Early Start Denver Model among others. When using NCBI teachers arrange the environment to promote learning, wait for child initiation of target skills, and provide natural reinforcers that are related to the student's response.

Nonverbal Behaviors
Deliberate communication behaviors other than speech/vocalizing.

Nonverbal Communication
Facial expression, gestures, body language, and distance you keep from other people when talking to them. There are some estimates that say as much of 90% of our communication messages come from the nonverbal elements of our communication.

Obsessive-Compulsive Disorder (OCD)
A chronic anxiety disorder most characterized by obsessive, distressing, repetitive thoughts, and related compulsions.

Operational Definition
Describes a behavior in observable and measurable terms such that any person may identify the behavior when it occurs.

Overt Behaviors
Behaviors that can be observed.

Parent
A natural, adoptive, or foster parent of a child which includes a guardian or an individual acting in the place of a natural or adoptive parent such as a grandparent, stepparent, or other relative with whom the child lives.

Appendix A | Definitions

Patterns of Behavior
Recurrent ways of acting that is often learned through reward and punishment (learned behavior).

Peer Network
A group of peers that includes an individual with ASD and is structured around a specific purpose such as tutoring or play.

Perspective Taking
The ability to understand how a situation appears to another person and how that person is reacting cognitively and emotionally to the situation, also known as theory of mind. This is common struggle for children with ASD.

Positive Behavior Supports (PBS)
Evidence-based practices embedded in the school curriculum/culture/expectations that have a prevention focus, teaching, practice, and demonstration of pro-social behaviors. A decision-making framework that guides the selection, integration, and implementation of the best evidence practices for improving important academic and behavior outcomes for all students. Services are often organized within a three-tiered approach including universal, targeted, and tertiary prevention.

Positive Psychology
The study of processes and conditions that promote optimal functioning in people including positive affect, positive character strengths, and positive institutions.

Positive Reinforcement
Presentation of something immediately following a behavior that makes that behavior more likely to occur in the future.

Prompts
Supplemental support to elicit the target behavior.

Punishment
Events that follow a behavior and decrease the likelihood of the behavior reoccurring.

Reciprocal Interactions/Conversation
Social situations that involve give-and-take or back-and-forth exchanges.

Regression
A return to a former or less developed state or the loss of skills previously acquired.

Rehearsal/Priming
Acting out a situation to practice skills in a structured, positive environment.

Replacement Behavior
A more acceptable behavior that serves the same purpose/function as the behavior in question.

Replacement Skills
Direct instruction of new skills to replace problem behaviors.

Appendix A | Definitions

Response to Intervention/Response to Instruction/Responsiveness to Intervention (RTI)
Practice of providing high quality instruction and interventions matched to student need, monitoring progress frequently to make changes in instruction or goals and applying child response data to important educational decisions.

Role-Playing
Acting out a situation to practice skills in a structured, positive environment.

Scaffolding
Adjusting the level of support provided based on the child's level of comfort and competence. This can include supports in the form of modeling, prompts, direct explanations, and targeted questions.

State Education Agency (SEA)
Refers to the Department of Education at the state level.

Self-Advocacy
Speaking up for oneself-- asking for what one needs.

Self-Advocacy Strategies
Assist the individual in being able to articulate needed supports and to advocate for them.

Self-Awareness
The ability to monitor, assess, and modify one's own behavior.

Self-Determination
Deciding one's own fate/future.

Self-Monitoring
Recording data about one's own behavior.

Self-Regulation
In sensory processing, an individual's method of responding to sensory input.

Self-Stimulatory Behaviors
Repetitive, apparently non-functional behaviors that provide some sensory input (e.g., finger flicking or rocking); also known as "stereotypes".

Semantic Mapping
Incorporates visual strategies to help students stay on a selected topic.

Sensory Integration
The organization of sensory input for use. The use may be a perception of the body or world, an adaptive response or learning process.

Appendix A | Definitions

Sensory Processing

A person's way of noticing & responding to sensory messages from their body and the environment. A complex set of actions that enable the brain to understand what is going on both inside your own body and in the world around you. Individuals with disabilities may respond to sensory input in more extreme ways. For example, persons with autism may be more sensitive to sounds and touch. Two major patterns of sensory processing: Over-responsive to sensory input (hypersensitive) - Responds to sensory input more intensely, more quickly, and/or for a longer period the person may display patterns of sensory avoidance or hyper-reactivity to sensory input. Under-responsive to sensory input (hyposensitive) - Responds less to sensory input. Person misses stimuli that others notice easily; system needs stronger input to activate (Dunn, 2007).

Setting Event

Conditions or events that influence behavior by temporarily changing the value or effectiveness of reinforcers.

Severity

Intensity of a behavior.

Shaping

Development of a new target behavior by the reinforcement of closer approximations the target behavior (e.g., target behavior placing utensils appropriately in a place-setting, reinforcement initially occurs for getting utensils to table, then placing utensils at each place-setting and then finally for placing the fork on the left and the spoon and knife on the right).

State Lead Agency (SLA)

The state agency designated to provide oversight for IDEA Part C Program.

SOCCSS (Situation, Options, Consequences, Choices, Strategies, Simulation)

A technique that provides a framework for tackling many situations. In this problem-solving method, first the SITUATION is discussed using wh-type questions (who, what, where, when, and why). Next, OPTIONS for the problem are identified and then CONSEQUENCES for each option. Following that, the options are prioritized and the best one is selected. Then, STRATEGIES are developed so the student knows how to handle the situation next time. The final step is SIMULATION, which allows the student to practice the chosen strategies to prepare for the next time the situation occurs. A student with autism is going to need guidance and support to move through these steps, as perspective taking, and flexible thinking is required to think of more than one solution or what the consequences might be.

Social Cognition/Social Thinking

How a person processes and interprets information about other people and their interactions.

Social communication

The reciprocal use or exchange of information that has a deliberate effect on another person's concentration, thought processes, or emotions.

Social Emotional Learning (SEL)

Social emotional learning is the process of teaching children and youth skills needed to handle ourselves effectively in everyday life and establish meaningful relationships. These skills include recognizing and managing emotions, developing caring and positive relationships, making responsible decisions and handling life challenges effectively (www.casel.org).

Appendix A | Definitions

Social interaction

Dynamic, changing sequence of social actions between individuals or groups who modify their behavior in response to one another.

Social learning

Learning to understand others' perspectives and to behave in ways that others will consider socially appropriate.

Social Narratives

Social narratives are phrases, sentences, or stories that help explain a social behavior or situation to an individual with autism. There are a variety of types, such as Power Cards, Social Stories TM, social scripts, or cartooning, to choose from based on the student's needs. Most of the narratives include the following steps: (1) Identify the target behavior; (2) Collect data to determine baseline; (3) Write the narrative based on the student's abilities; (4) Teach the narrative and review as determined by need; (5) Continue to collect data and evaluate the effect of the narrative (based on Texas Autism Resource Guide for Effective Teaching).

Socialization/Social Skills

Socially acceptable learned behaviors that enable a person to interact with others in ways that elicit positive responses and assist in avoiding negative responses.

Social Skills Groups

Gathering groups of students who are challenged with gaining social competence can allow for teaching and practicing positive social behaviors. The groups can be school based, agency based, or community based with a focus on social skills, social frameworks, or recreation and leisure skills.

Social Translator

Used to help interpret the person's behavior in the context of their characteristics and helps to interpret situations and the behavior of others to the student with ASD.

Social Validity

The extent to which the people directly involved with social skills programming believe it is valuable for the child or adolescent with ASD and, therefore, are likely to be enthusiastic about supporting and implementing it.

SODA (Stop, Observe, Deliberate, Act)

SODA is a framework for approaching social situations. For instance, if I were going to lunch with a group of friends, first I would STOP before entering the situation. Next, I would OBSERVE what people are doing and saying. Then, I would DELIBERATE about how I can fit into the situation. And last, I would ACT on what I decided during the deliberation phase. SODA gives a method for approaching many social situations rather than a breakdown of each skill.

Stakeholder

Anyone affected by or invested in the implementation and outcomes of a process or activity. For example, teachers, students, administrators, and families are all stakeholders in education.

Stereotyped Behaviors

also referred to as "stimming" is a way in which someone self-stimulates to meet an underlying sensory need. Examples include body rocking, hand flapping, etc.

Appendix A | Definitions

Stress Thermometers

Stress thermometers are a visual support that can show students with autism how their emotions affect their levels of stress and what supports can be helpful for each level. Using a picture of a thermometer, the student shares what is least stressful to most stressful and those are written on the left side of the red line rising on the thermometer. On the right side, supports for each stressor are added. The visual is reviewed and taught to the student.

Structured Leisure Participation

Participation in organized activities that possess the following characteristics: regular participation schedules, rule-guided interaction, direction by one or more adult leaders, an emphasis on skill development that increases in complexity and challenge, and performance that requires sustained active attention and the feedback (Mahoney et al., 2005). Participation in structured leisure is associated with both personal and interpersonal development.

Symbol

An abstract representation that communicates an idea; symbols can range from pictures to written and spoken language.

Symbolic Communication

Use of symbols of any sort to communicate meaning.

Token

An item that may be earned for displaying an appropriate behavior and redeemed later for a reinforcer Examples include stickers, points, fake coins.

Transition

Any environmental change, such as a change of location, activity, or support personnel 1) Transitions can be minor, such as changing activities within the classroom, or major, such as moving from elementary school to middle school. 2) The change from school to post-school life.

Underlying Characteristics

Characteristics across several domains associated with ASD.

Visual Schedule

A visual schedule will tell the student what activities will occur and in what sequence. Schedules can be object-based (e.g., a shopping bag means student is going shopping), photograph/picture symbol (e.g., a picture of the grocery store) or traditional orthography.

Visual Supports

Tools that are used to increase the understanding of language, environmental expectations, and to provide structure and support.

APPENDIX B

Characteristics Associated with ASD

Social Characteristics	Communication Characteristics
• May exhibit poor eye contact. • May not differentiate between strangers and those seen every day or show anxiety towards strangers. • May have a narrow range of emotions – inappropriate displays. • May not enjoy social games. • May lack pretend/imaginative play skills. • May not show an awareness of others. • May have difficulty reciprocating emotionally and socially and have difficulty relating to others. • Often demonstrate little or no interest in • establishing friendships or have difficulty in developing and maintaining friendships. • Difficulty initiating or sustaining play with peers or groups. • May lack understanding of social cues, gestures, emotional expressions. • May lack understanding of how others feel/ express moods. • May have strange fears or lack fear of real danger. • May repeat preferred play schemes repeatedly.	• May have difficulty reading and showing emotion. • May be unusually quiet. • May not respond to name. • May not babble and coo. • Language may be delayed. • Stereotyped or idiosyncratic speech is common. » may have echolalia (repeating words or phrases they hear) either immediately or later. • Used to say a few words, but now does not. • Often have trouble imitating or using nonverbal gestures and appropriate facial expressions to communicate. • May have difficulty initiating interaction with • others. • May appear not to be interested in communicating with others. • May not imitate or demonstrate functional and pretend play. • May not point or wave/. • Abnormal pitch, intonation, rhythm, stress. • Grammatical structure may appear immature. • Difficulty understanding and interpreting language.

Appendix B | Characteristics Associated with ASD

Behavior Characteristics	Learning Characteristics
• May dislike being held or stiffen when held. • Exhibits repetitive body movements such as hand or finger flapping or rocking. • May be extremely sensitive to some auditory stimuli. • May not respond to some auditory stimuli. • May exhibit stereotyped and repetitive use of language or idiosyncratic language. • May perseverate on certain activities. • May demonstrate persistent preoccupation with parts of objects. • May resist changes in routines, unreasonable insistence on following routine. • May lack fear of real danger. • May explore environment by inappropriate methods such as licking, smelling, and handling objects. • Avoids looking at other people. • Avoids contact with other people, preferring to touch objects.	• May perform unevenly within and across skill areas. • Resists changes in the learning environment. • Has difficulty waiting or using unstructured time. • May not generalize skills to other settings. • Has problems with abstract and conceptual thinking; requires concrete interactions. • Uses and interprets speech literally; doesn't usually read facial expressions, body language or other social cues. • May be impulsive, compulsive or perseverate on certain activities. • May be distracted by auditory or visual stimuli. • Has trouble with organizational skills, planning or making choices. • Relies on learned routines, cues, and other learned patterns. • Thrives on structure and consistency.

Appendix B | Characteristics Associated with ASD

Sensory/Motor Characteristics	Attention/Organization Characteristics
• May be over or under sensitive to certain sensory stimuli: » Sounds » Tastes » Visual input » Textures » Smell • May have insensitivity to pain/ high pain threshold. • Poor fine motor skills (e.g., writing may be extremely difficult and laborious or sloppy, off the lines and out of the boundaries). • Gross motor skill difficulties: » Difficulty with coordination. » Balance problems. » Playground activities or sports may be difficult, awkward, or frustrating. • Limited awareness of the physical presence or needs of others. • Unaware of their body's place in space.	• Poor Concentration: » Often off task. » Easily distracted. » Overloads easily. » May be disorganized. » Difficulty sustaining attention. • Poor organizational skills: » May lose papers, assignments, etc. » Desk may be messy. » Backpack never emptied. » May not be able to predict or organize. » May not remember homework. » Difficulty knowing how and where to start work.

APPENDIX C

Assessment of Skills and Deficits in ASD

Common Skills and Deficits

Those with ASD commonly display skills and deficits in the areas of socialization, communication, cognition, sensory processing, and behavior management. They also may develop skills at different rates than non-disabled students. The following section addresses assessment considerations in these areas.

Socialization

The student displays difficulties or differences or both in interacting with people and events. The student may be unable to establish and maintain reciprocal relationships with people. The student may seek consistency in environmental events to the point of exhibiting rigidity in routines.

Explanation: Students with autism exhibit differences in the development of social relation skills that most typical students develop innately. While students with autism may show interest in social interaction and / or affection, they may not be able to initiate or maintain interactions with peers and adults in the expected manner for their age. Some students with autism may successfully learn the rote aspects of interaction including manners, social niceties, and eye gaze. Exercise caution in interpreting these rule-based social skills as being an overall indicator of the quality of the student's social abilities.

Social expectations change as students grow and develop. For very young children, most social contact occurs within the family and community. As students get older, their social interactions include those outside of the family context. Friendships with peers become increasingly important. Students with autism often have difficulty developing and maintaining appropriate social relationships. Many students with autism prefer the company of, or have better social success with, adults or younger children versus same-age peers. Be cautious in interpreting students' social abilities based only on successful interactions with adults, especially in structured situations.

Assessment Considerations

Observations: When evaluating social interactions, it is best to observe the student in various social situations. Look for evidence of the following:

- **Attachment** – Does the student form attachments to family members and others?
- **Joint attention** – Is the student able to share attention with another person to a third object or event? For example, does the student point to share his/her interest in an experience, i.e., "Look, there's an airplane! How cool!" Some students with autism may take another person's hand or point solely to get their wants and needs met, but this is not considered sharing or joint attention.
- **Social orientation/social awareness** – How aware is the student to the social environment as compared to the physical environment? Is the student drawn to people versus the physical aspects of an environment?
- **Imitation** – Does the student learn from imitating what he or she sees others doing? For example, when the teacher gives group directions, does the student attend to his peers, and imitate their actions?
- **Social reciprocity/turn-taking** – Does the student engage in give-and-take, back-and-forth social interaction including conversation, turn-taking in games, waiting their turn in group situations such as during group classroom discussions?

- **Social rules/codes of conduct** – Does the student understand the unstated, tacit rules of social interactions and social situations? For example, does the student understand the social rules around how to show interest in a person she or he likes?
- **Social play** – What is the social quality of the student's play? Does the student prefer to play alone? Does the student engage in parallel play? Does the student play interactively and appropriately, or does the student dominate play with peers? How does the student handle competition?
- **Group social skills** – How does the student interact in group learning activities? Does the student recognize and understand his/her role in a group, such as taking turns, waiting, following group directions, etc.?
- **Social cognition** – Does the student understand that others have thoughts, ideas, opinions and interests that are different from his/her own? Does the student understand that his or her behavior has an impact on others?

Interviews - Interviewing the student and those who know the student well (always including parents), will provide insight into the student's social abilities. Ask questions about the aspects of social interaction that were not evident during observations. Inquire about aspects of your observations to corroborate the information obtained.

Record Review - Look at report cards for teacher comments about the student's social interactions. As well as communication and collaboration (verbal and written) between parents and teachers, behavioral records such as disciplinary referrals and preschool records, etc., may be sources for social interaction information.

Communication

Communication is an exchange of information between individuals through a common system of symbols, signs, or behavior. Students with autism exhibit a wide variety of language and communication abilities, ranging from pre-speech or non-speaking to highly verbal with extensive vocabularies. Though some students with autism exhibit appropriate expressive language skills (vocabulary, speech sound skills, grammatical skills, sentence length and structure) and/or receptive language skills (understanding conversation, following directives, processing auditory information), differences in language use are seen across the spectrum.

According to the DSM-5 TR, a person with autism displays persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history:

- Deficits in social-emotional reciprocity
- Deficits in nonverbal communicative behaviors used for social interaction
- Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers)

The student displays problems which extend beyond speech and language to other aspects of social communication, both receptively and expressively. The student's verbal language may be absent or, if present, lacks the usual communicative form which may involve deviance or delay or both. The student may have a speech or language disorder or both in addition to communication difficulties associated with autism. Receptive, expressive, and pragmatic language skills should be evaluated.

Appendix C | Assessment of Skills and Deficits in ASD

Evaluation: Speech-language pathologists (SLPs) have specialized skills and can evaluate speech and language skills and provide services to improve language and communication. A student who meets the educational eligibility criteria for autism may or may not also meet the educational eligibility criteria for speech and language impairment. The IEP team has several options to consider in determining how the student's language and communication needs will be met. For example, language and communication needs may be met by direct service from an SLP or by others, including the general education teacher or other special education providers.

Note: Strong verbal skills often mask underlying deficits in comprehension of verbal and nonverbal language. Many students with autism, even those with highly sophisticated verbal skills, appear to understand and know more than they can process or perform.

Assessment and Observation Considerations: Be sure to observe the student in more than one environment if possible. Does the student?

Preverbal/Nonspeaking Students

- Understand cause and effect?
- Exhibit communicative intent (the desire to communicate with another person)?
- Get his or her wants and needs met? How? For example, does the student gesture or take the hand of an adult to direct the adult to a wanted item? Does the student use eye gaze to indicate wants? Does the student communicate through crying, tantrums, refusal, or other communicative behaviors? \
- Have a consistent means of communication? For example, verbalizations, vocalizations, gestures, signing, low tech device, high tech speech generating devices, pictures, Picture Exchange Communication System (PECS)? Does the student use a combination of these forms of communication?
- Repeat or echo words or phrases (echolalia)?
- Demonstrate spontaneous use of core communicative functions such as requesting, protesting or refusal, indicating cessation ("all done"), requesting help or assistance?
- Spontaneously seek out others to initiate communication without prompting.
- Understand and follow verbal and nonverbal directions?
- Exhibit auditory processing delays?
- Exhibit prelinguistic skills? E.g., joint attention, anticipation, pointing/reaching, facial expression/body language, social gestures/signs, turn taking, babbling, imitation.

Verbal Students – Does the student?

- Spontaneously seek out others to initiate communication without prompting.
- Demonstrate spontaneous use of core communicative functions such as requesting, protesting or refusal, indicating cessation ("all done"), requesting help or assistance?
- Have reciprocal conversations?
- Maintain a topic initiated by others?
- Attend to communicative partner, for example, call out the person's name, establish eye contact, or demonstrate appropriate personal space?

- Observe and understand nonverbal cues exhibited by others?
- Exhibit appropriate nonverbal cues themselves, such as body language, tone of voice, vocal inflection, eye gaze, personal space, etc.?
- Show an interest/awareness in the needs and wishes of others? Can the student communicate that interest/awareness such as by asking questions about the other person's interests?
- Show awareness and ability to repair communication breakdowns? Exhibit a knowledge base of his or her communicative partner? Does the student provide sufficient background or reference information to help the partner understand and participate in the conversation?
- Have the vocabulary and knowledge base to express his/her emotions/feelings in a variety of situations?
- Understand and follow verbal and nonverbal directions?
- Understand and use figurative language such as idioms or slang?
- Exhibit auditory processing delays?
- Answer questions?
- Participate appropriately in small or large group discussion?

Interviews

Interviewing the student and those who know the student well will provide insight into the student's communication abilities. Parents, teachers, early caregivers, outside therapists, other service providers, etc. can be sources for information on the student's communication. Ask questions about the aspects of communication that were not evident during observations. Inquire about aspects of your observations to corroborate the information obtained. Seek information about the student's early communication/language development, i.e., delays, differences, regressions, forms of communication used or introduced in the past, communication used in various environments, etc.

Record Review: Thoroughly review school records, available medical or outside provider records for information on communication skills. School records, such as report cards and progress reports often provide historical information about the communication and language skills. Parents should always be consulted as well for records they may have.

Cognition

The student exhibits abnormalities in the thinking process and in generalizing. The student exhibits strengths in concrete thinking while difficulties are demonstrated in abstract thinking, awareness, and judgment. Perseverant thinking and impaired ability to process symbolic information may be present.

Explanation: Students with autism often process information in a concrete and literal manner with difficulties understanding abstract and symbolic information or relationships. Executive functioning skills, i.e., attending, problem solving, organizing, prioritizing and/or generalizing are often compromised.

NOTE: Strong verbal skills often mask underlying deficits in comprehension of verbal and nonverbal language. Many students with autism, even those with high sophisticated verbal skills, appear to understand and know more than they are able to actually process or perform.

Appendix C | Assessment of Skills and Deficits in ASD

Assessment Considerations

Standardized Tests, Assessments and Checklists

If standardized tests are given, look for evidence of processing strengths and difficulties. Use the guidance of your School Psychologists to analyze information about cognitive processing.

Observations: When assessing a student's cognitive processing, observe the student's ability to:

- Understand abstract language concepts such as words with multiple meanings, idioms, etc.
- Understand hidden meanings of language, commands, directions, teasing, jokes, etc.
- Generate imaginative play versus rote play.
- Problem solve and make inferences.
- Make realistic, practical predictions about situations and events.
- Understand the concept of the passage of time and time management.
- Organize herself or himself and materials and get started on an action or activity.
- Generalize concepts (be aware of both over-generalization and under-generalization) across people, settings, materials, etc.
- Understand the difference between reality and pretending.
- Discriminate important information and prioritize attention to salient information.
- Use written expression at the expected level for the student's intellectual ability. Written expression is a complex task and difficulties may arise from multiple sources.

Interviews

Parents, teachers, early caregivers, outside therapists, and other service providers can be sources of information about cognitive processing.

Record Review

Thoroughly review school records, available medical or outside service provider records for information about cognitive processing. Parents should always be consulted as well for records they may have.

Sensory Processing

Sensory processing is the term used to describe the neurological processing of sensory stimuli. Sensory stimuli come from many environmental sources including vision, hearing, smell, taste, touch, movement. People also get sensory information from their own bodies that include balance sense, awareness of your body's position, pain, temperature, and interoception (the sense of the internal state of the body).

Explanation: Sensory processing describes the process that occurs after sensory information is received in our brain. The brain first interprets the sensory information to determine whether it is safe or unsafe. It also searches our memory to know if the sensory information is something we have experienced before. After the sensory information is registered the brain organizes and responds to sensory input to guide our behaviors, emotions, and readiness to perform learning tasks. When sensory processing is effective the person can

adapt to sensory challenges and to function in a consistent and effective manner.
Sensory processing is a normal neurological process and differences in sensory processing are common. For example, some people are very sensitive to loud sounds, or the texture of their clothing. When a person's experiences differences in processing sensory information that interferes with a person's ability to learn and participate productively in everyday life is can be a problem. Problems with sensory processing are very common in students with autism.

This can be manifested through behavior challenges, emotional outbursts, or unwillingness to participate. The student may exhibit hypersensitivity (over sensitivity or sensory aversion) or hyposensitivity (under sensitivity or sensory seeking). Hypersensitivity may escalate until the student stops responding and appears lethargic. Hyposensitivity may also present itself as low arousal to sensory stimuli, causing the student to appear lethargic.

NOTE: Everyone exhibits sensory processing differences. For these purposes we are concerned with sensory processing differences that affect or impact the student's ability to function in the expected manner in various environments.

Assessment Considerations

Evaluation: Occupational therapists are experts in evaluating and intervening with sensory processing and integration deficits. School-based occupational therapists may use a variety of standardized and non-standardized assessments to measure sensory processing skills. Evaluation of sensory processing and integration skills should be assessed in reference to performance and function in school-based activities. The IEP team will meet to determine how best the student's sensory needs will be met.

Appendix C | Assessment of Skills and Deficits in ASD

Observations: In assessing a student's sensory processing, observe for hypersensitivity or hyposensitivity in various learning environments (classroom, gym, cafeteria, hallway, bathrooms, playground, assemblies, art, music, computer labs, bus, community activities, vocational sites, etc.) in all the following sensory areas:

Sensory Areas	Examples of Hypersensitivity	Examples of Hyposensitivity
Visual (Sight)	Closing eyes, squinting, avoidance of visual stimuli.	Throwing items, staring intensely at an object, moving objects or fingers in front of eyes.
Tactile (Touch)	Clothing/food issues, avoidance of textures, difficulty in crowds,	Fidgeting with objects, need to touch others or objects.
Auditory (Hearing)	Covering ears, avoiding noisy environments, overreaction to unexpected sounds such as fire alarms or barking dogs.	Not responding to auditory input including sounds and voices, turning volume up loud on computers, radios, etc., seeking auditory input by creating noise (tapping pencils, etc.).
Olfactory (Smell)	Plugging nose, verbalizing discomfort, gagging, vomiting, ability to smell things undetectable to others, avoiding certain odorous foods, people, or environments	Smelling items, even those that typically do not have an odor, sniffing people
Gustatory (Taste)	Gagging, vomiting, extremely limited diets, refusal to try new foods, preference for certain textures/ temperature of foods.	Mouthing and chewing objects and clothing, craving certain types or flavors of foods, eating non-food items.
Vestibular (Movement and Balance)	Avoids playground/gym activities avoids head movement, fearful of stepping over barriers or onto moving object like escalators.	Toe walking, spinning, swinging, running, bouncing, fidgety behavior, constant movement.
Proprioceptive (awareness of the position of the body)	Avoidance of others (for example staying on the fringes of groups, being last in line, falling off chair,	excessive or weak force on objects or people, stomping feet, banging into people or objects
Interoception (the sense of the internal state of the body).	Over-reaction to small hurts and/ or changes in temperature. Has difficulty ignoring small itches such as the itching associated with dry skin.	Fails to notice injuries and/or hunger. Will play in the cold for long periods without distress.

Interviews - Parents, teachers, including physical education, music and art teachers, playground and lunch supervisors, custodians, bus drivers, early caregivers, outside therapists and other service providers can be sources of information about sensory processing. Ask questions related to sleep patterns, toileting, dressing, eating habits, hygiene, community participation, etc. Ask about strategies parents and students have found successful for calming or arousing.

Record Review - Thoroughly review school records, available medical or outside service provider records, and parent records for information related to sensory processing. School records, such as report cards and progress reports often provide historical information about sensory needs.

Behavior

The student displays marked distress over changes, insistence on following routines and a persistent preoccupation with or attachment to objects. The student's capacity to use objects in an age–appropriate or functional manner may be absent, arrested or delayed. The student may have difficulty displaying a range of interests or imaginative activities or both. The student may exhibit stereotyped body movements.

Explanation: Students with autism often demonstrate a need for consistency and predictability in daily routines and learning environments. Due to their challenges in processing language, social, sensory, and cognitive information, students with autism tend to rely heavily on learned and predictable rules, routines, and structures. Alterations in rules, routines and structures significantly impact students with autism. Students may demonstrate rigidity and perseveration in patterns of thinking and may exhibit preoccupation with topics, themes, objects, events, or people. This preoccupation often interferes with their ability to function in the manner expected. Students may have a restricted range of interests and may resist participation in other activities or discussions about other topics unless provided additional motivation. Students may use objects or their bodies in unconventional or repetitive ways.

Assessment Methods and Suggestions

Observations - When assessing this area, observe the student in various learning environments. Students may demonstrate:

- A high interest involving objects, topics, or themes. This can present as obsessive- compulsive type behavior.
- A restricted or narrow range of interests including unusual interests compared to their peers.
- Ritualistic actions or behaviors.
- Rigidity in routine, difficulty with change and transitions.
- Insistence on sameness.
- Perfectionism and fear of failure that impact willingness to engage in written language activities or complete tasks or activities perceived as difficult.
- Difficulty letting go of perseverative thoughts, activities, actions or behaviors, i.e., "getting stuck".
- Repetitive motor or vocal patterns such as flapping, rocking, pacing, humming, picking, chewing, etc.

Interviews - Parents, teachers, early caregivers, outside therapists, and other service providers can be sources of information about the need for routine and consistency. Explore what motivates the student. Talk about similarities and differences in routines at school, home, and the community.

Record Review - Thoroughly review school records, available medical or outside service provider records for information about the need for routine and consistency. Consult with parents on any records or information they may have.

Developmental Rates and Sequences

The student exhibits delay or regressions in motor, sensory, social or learning skills. The student may exhibit precocious or advanced skill development, while other skills may develop at normal or extremely depressed rates. The student may not follow normal developmental patterns in the acquisition of skills.

Explanation: Children generally develop in similar stages and sequences. Diverse patterns of behavior and learning emerge because of the interaction of several factors including genetic predisposition and physical characteristics; socio-economic status; and values, beliefs, cultural and political practices of their families and communities.

The developmental rates and sequences of students with autism typically include a splintering of skills with clear strengths and weaknesses. In addition, students with autism often exhibit advanced or precocious development in certain concrete visual rote learning skills while exhibiting depressed rates in other areas. These students do not always follow a normal developmental pattern or progression in acquiring skills.

NOTE: Information in this area is often gathered through thorough developmental history interviews and record review.

Assessment Considerations

Standardized Tests, Assessments and Checklists - If standardized tests are given, look for discrepancies among subtest scores or scores between different tests, including standardized testing measuring motor, sensory, social, or learning skills.

Observations - Observations are especially important for assessing development of early childhood students.

Interviews - Parents, teachers, early caregivers, outside therapists and other service providers can be sources of information about uneven developmental rates and sequences.

Record Review - Thoroughly review school records, available medical or outside service provider records for information about uneven developmental rates and sequences. Parents should always be consulted as well for records they may have.

APPENDIX D
Assistive Technology

Assistive technologies are applications (either hardware or software) designed specifically to assist individuals with disabilities to overcome barriers. In compliance with IDEA, schools are responsible for determining what assistive technology is appropriate for an individual with a disability in order that the individual may receive a free and appropriate public education in the least restrictive environment. Assistive technology is 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 functional capabilities of individuals with disabilities" (IDEA). In addition, assistive technology services must be provided in order that the individual with a disability is able to successfully select, acquire and use an assistive technology device.

Caution should be taken not to limit the consideration of assistive technology to expressive communication only. While augmentative communication devices can support a significant "breakthrough" for some individuals with ASD, there are many other ways in which to use technology within an educational program for individuals with ASD. These are categorized in several categories.

"No" Tech Tools

- No tangible items or material is involved
- Clear physical and visual boundaries
- Elimination of extraneous visual stimulation
- Proximity of staff to individual

Low Tech Tools

These require the individual or staff person to utilize an item that typically is not electronic, or battery operated. These items are typically low-cost and easy to use.

- Dry Erase Boards
- Clipboards
- Three-ring binders
- Picture Symbol Cards
- ·Choice Voice (no voice output)
- Ear Plugs
- Use of a pointer
- Visual Schedules and Routines
- Slant boards

Appendix D | Assistive Technology

Mid-Tech Tools

These include battery-operated devices or simple electronic devices requiring limited advancements in technology:

- Audio recording devices
- Visual Timers
- Calculators
- Noise-Canceling Headphones
- Assistive Listening Devices
- Speech to Text or Text to Speech Apps
- Simple Voice Output Devices

High Tech Tools

These complex, typically high-cost devices require some training for effective use.

- Computer Software and Adaptive Computer Hardware
- Video Cameras
- Dynamic Display Speech Generating Devices or Communication Apps

APPENDIX E
Policy Guidance

Policy 2419 - West Virginia Department of Education (wvde.us)
Regulations for the Education of Students with Exceptionalities- Policy 2419

Policy 5314.01 - West Virginia Department of Education (wvde.us)
Autism Mentor Policy – Policy 5314.0

HB 2868 Text (wvlegislature.gov)
West Virginia Children with Autism Trust Act

Policy 4373 Expected Behaviors in Safe and Supportive Schools (state.wv.us)
West Virginia Behavior Policy

WVABLE
WV ABLE

WV Code

Many insurance plans including WV Public Employee Insurance Agency (PEIA), Children's Health Insurance Program (CHIP), fully funded plans, and Medicaid, cover services for the diagnosis and treatment of ASD. Most plans include coverage of speech therapy, occupational therapy, physical therapy, and ABA.

Some plans may include financial or number of visits allowed. In accordance with federal and state mental health parity law, PEIA, CHIP, and many fully funded plans are not permitted to have treatment caps. Check with your plan for specific details.

APPENDIX F

Education Best Practices Guidelines Checklist

The following guidelines can be used by both parents and educators to address the unique needs of students with autism. This list is not intended to be included in every plan for every child. It is intended to be a starting point for discussion by the planning team when designing an individualized plan.

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
1: Extended School Year (ESY)		
(Note – these are distinct and need to be clearly defined.) 1. Duration and programming to be based on individual needs. 2. Extended day should be different from In-Home Training. 3. Determine eligibility criteria based not solely on regression, on the needs assessment of the following areas: behavior, social skills, communication, academics and self-help skills. 4. Should be available to all eligible students; not to be determined by district availability funds/staff. 5. To include variety of structural programs/settings. 6. Services should be linked to IEP objectives and goals.		

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
2: Daily Schedules Reflecting Minimal Unstructured Time		
(Note – these are distinct and need to be clearly defined.) 1. Flexibility within routines to adapt to individual skill level. 2. Learning activities should be based on IEP goals and objectives and related educational activities. 3. Engagement time may include lunch, snack and recess. 4. Consideration should be given to aiding students with changes in routine s and schedule changes such as, drills, field trips, substitute teachers and assemblies		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
3: Collaboration Among all Stakeholders		
Include training and IEP goals and objectives to assist in acquisition and generalization to the home and community setting (appropriate social interaction skills including social communication, social interaction, and behavioral skills) based on needs assessment. 1. Communicate strategies, interventions, modifications, and accommodations that are known to be successful, as well as those deemed ineffective across all environments (home to school, home to community, school to home, school to community). 2. Consistent and open communication between school professionals and paraprofessionals, parents/guardians, and community-based service providers (OT, PT, SLP, ABA etc.). 3. All stakeholders should be included in and assigned to responsibilities for the identified student (e.g., goal development, data collection, resource finding/sharing, plan writing, evaluations, assessments, intervention monitoring, etc.)		

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
4: Positive Behavior Support Strategies		
Positive Behavior Supports include Functional Behavioral Assessment (FBA), antecedent manipulation, teaching replacement behaviors, reinforcement strategies, data-based decisions. Behavior Intervention Plan developed and maintained based on a Functional Behavioral Assessment using current data. 1. Considerations and guidelines should be written for the person who is performing FBA. 2. Behavioral programming is structured across school, and home-based settings. Ensuring that programming is applicable and consistent across all settings and the implementor.		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
5: Futures Planning for Integrated Living, Work, Community and Educational Environments		
Considered for all students with ASD, at any age. 1. Consider the present level of academic achievement and functional performance of the skills necessary to function in all environments post-graduation (Strengths, interests, vision or goals for employment, daily living, post-secondary education, etc.) 2. Consider skills necessary to function in all environments. 3. Consider skills necessary to function in all environments for current year.		

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
6: Parent/Family Education, Training and Support		
Parent/family education, training and support are designed to provide the parent/family with skills/techniques needed to help their child become successful in the home/community settings. Parent training is provided by qualified personnel with experience in autism and may include but is not limited to: information regarding parent support groups, workshops, videos, conferences, direct consultation, materials, separate and distinct from in-home training to increase the parent's knowledge of specific teaching and management techniques, curriculum information, provide information related to the child's disability and available resources and facilitate parental carryover of in-home training. Strategies can include behavior management, setting a structured home environment or communication training. Parents are active participants in promoting the continuity of intervention across all settings based on the child's IEP. Parental input statements should be encouraged and always included in the child's IEP.		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
7: Staff-to-Student Ratio		
Staff-to-student ratio appropriate to identified activities and as needed to achieve progress on social, behavioral and/or academic IEP goals and objectives. The team may determine ratios based on Policy 2419 and should consider: 1. Level of learning (acquisition, fluency, maintenance, generalization). 2. Priority given to work towards individual independence by fading dependence on 1:1 ratio. 3. Developmental level of student. 4. Behaviors needs. 5. Accommodations across all settings. 6. Transitions with the school day. 7. Teaching activities.		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
8: Teaching Strategies		
Teaching strategies shall be based on peer reviewed and empirically validated evidence-based practices/methodologies for students with autism. At this time the science heavily favors but is not limited to those based on the science of applied behavior analysis (ABA), defined as the application of behavioral principles for the benefit of the learner and includes simultaneous evaluation of the effect of these applications. The following instructional strategies should be considered: • Functional Academics • Discrete-Trial Training (DTT) • Errorless Learning Opportunities • Appropriate level of prompting (refer to prompt hierarchy) • Use of Visual Supports • Structured Learning Environments • Augmentative and Alternative Communication • Social Skills Training Implementation of the instructional strategies should be reflected in the IEP. The following will be considered: • How will this strategy be implemented? • When and by whom?		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
9: Communication		
Communication intervention, which considers language forms and functions that enhance effective performance across settings. Strategies may include, but are not limited to: • Augmentative and Alternative Communication (AAC) » Examples: Speech-generating devices, PECS (Picture Exchange Communication System), American Sign Language (ASL), core vocabulary, language acquisition through motor planning, pictures, spelling • Activity schedules and visual supports • Video-based Instruction (video modeling) • Behavioral Interventions » Applied Behavior Analysis » Discrete Trial Training » Functional Communication Training » Incidental Teaching » Milieu Therapy » Positive Behavior Support » Self-Management • Cognitive Behavioral Therapy » Examples: Explore Feelings, Rational Emotive Behavioral Therapy, Social Thinking • Early Start Denver Model • Literacy (Written Language) Intervention • Spoken Language Intervention • Speech Sound Intervention • Parent – Mediated or Parent-Implemented Intervention » Examples: More Than Words, Talkability • Peer-Mediated or Peer-Implemented » Examples: LEAP, Circle of Friends, Integrated Play groups • SCERTS (Social Communication, Emotional Regulation, and Transactional Support) • Social Communication Intervention » Joint Attention Symbolic Play Engagement Regulation (JASPER) » Social Scripts » Social Skills Groups » Social Stories • Relationship-Based Interventions » Examples: DIRFloortime, Relationship Development Intervention (RDI) • Treatment and Education of Autistic and Communications-Handicapped Children (TEACCH)		

Appendix F | Education Best Practices Guidelines Checklist

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
10: Social Skills Support		
Consideration will be given to the following areas: 1. Appropriate social skills assessment and curriculum. 2. Instruction provided by highly qualified service providers. 3. Use of trained peer facilitators such as, but not limited to, circle of friends. 4. Strategies may include but are not limited to video modeling, scripts, training, social stories and role playing. 5. Support to be provided across all settings.		

Student Planning Goal/Objective	Currently in Place	Not Yet in Place
11: Professional Educator/Staff		
Appropriate professional development is provided for all personnel who work with the student to assure the correct implementation of the techniques and strategies as determined by the IEP.		

This checklist was developed through the work of the Texas Autism Rule Study Committee, a committee comprised of parents, autism providers (Board Certified Behavior Analysts), school principals and Texas education agency representatives. It was shared through the efforts and courtesy of the committee and Arzu Forough (2007) and updated during the WVDE revision in 2023.

APPENDIX G

Contacts and Resources

Below is a selection of resources families, schools and agencies may find helpful in meeting the educational needs of students with ASDs. At the time of printing, all resource information was up to date. The following resources are presented as information only. Inclusion of this information in this guidance document should not be construed as an endorsement of the resources.

Contact Information	Contact QR Code
Autism Individualized & Mentoring Support Services Fairmont State University 341 Education Building Fairmont, WV (304) 333-3687 AIMSS provides individualized planning to develop strategies and support for each student accepted into the program. Students accepted into the AIMSS program must meet criteria for admission to Fairmont State University. Students and Program staff work together to identify and develop individualized supports based upon the strengths, abilities, and needs of each student.	
ARC of West Virginia 912 Market Street, Parkersburg, WV 26101 304-422-3151 *info@thearcmov.org* *thearcofwv.org* The ARC promotes the education, health, self-sufficiency, self-advocacy, inclusion, and choices of individuals with developmental disabilities and their families.	
Autism Training Center WV Autism Training Center (WV-ATC) Phone: 304-696-2332 *https://www.marshall.edu/atc* *wvatc@marshall.edu*	
Autism Society of America - WV Chapter ASA-WV PO Box 7 Huntington, WV 25706-0007 The Autism Society of America - West Virginia (ASA-WV) is a chapter of the Autism Society of America, which was founded in 1965 by a small group of parents working on a volunteer basis out of their homes. Over the last 35 years, the Society has developed into the leading source of information and referral on autism.	

Appendix G | Contacts and Resources

Contact Information	Contact QR Code
CARES Community Autism Resources & Education Systems 304-306-0847 Mailing Address: PO Box 1003, Hurricane, WV 25526 Office Address: 3554 Teays Valley Road Suite 112, Hurricane, WV 25526 *wvcaresforautism@gmail.com* *www.wvcaresforautism.org*	
Center for Excellence in Disabilities WVU Phone: 304-293-4692 or (888) 829-9426 TTY: (880) 518-1448 *cedcontact@hsc.wvu.edu* *www.cedwvu.org* For nearly 30 years, the Center has worked with consumers, state, local and federal agencies to realize opportunities and tackle and overcome challenges for people with developmental and other disabilities of all ages. CED is West Virginia's only federally designated Center for Excellence in Disabilities providing resources and supports in all fifty-five counties of the state.	
Division of Vocational Rehabilitation (DVR) West Virginia DVR Services Phone: 1-800-642-8207 *www.wvdrs.org/index.cfm*	
Office of Special Education West Virginia Department of Education 1900 Kanawha Blvd. East Charleston, WV 25305 Phone: 833-627-2833 *wvde.us/special-education*	
Safe at Home Wraparound Service *dhhr.wv.gov/bcf/Services/Pages/Safe-At-Home-West-Virginia.aspx*	
West Virginia Birth to Three Phone: 304-558-5388 Fax: 304-558-2183 Toll Free in WV: 800-642-8522 *www.wvdhhr.org/birth23* *dhhrwvbtt@wv.gov* WV Birth to Three directs the coordination of the statewide system of early intervention services for families with children age birth to three that have developmental delays.	

Appendix G | Contacts and Resources

Contact Information	Contact QR Code
WV Developmental Disabilities Council 304-558-0416 (Voice) 304-558-2376 (TDD) 304-558-0941 (Fax) *www.ddc.wv.gov* *dhhrwvddc@wv.gov*	
WV Parent Training and Information 99 Edmiston Way, Suite 101-102, Buckhannon, WV 26201 Phone: 304-472-5697 In WV: (800)281-1436 Fax: 304-472-3548 *www.wvpti-inc.org* WVPTI provides training, technical assistance, information and referral to parents and other professionals on appropriate educational services for students with special needs.	
WVU Neurodevelopment Medicine Center 201 Baker's Ridge Road, Morgantown, WV 26508 Phone: 855-988-2273 *childrens.wvumedicine.org/services/specialty-care/neurodevelopmental-center*	
WV Assistive Technology Systems *wvats.cedwvu.org*	
WVDE Technical Assistance Center for Accessibility and Transition *wvde.us/technical-assistance-centers/accessibility-and-transitions*	
WVU Country Road's Program: WVU CED *countryroads.cedwvu.org* The goal of the program is to prepare students with disabilities for independence by providing academic courses, social engagement and real-world work experiences. Students will live in a shared residential housing arrangement, participate in social activities across campus and receive career education and training.	

National Professional Development Center on ASD
http://autismpdc.fpg. unc.edu/

Appendix G | Contacts and Resources

Autism Organizations and Web Resources	Resources QR Code
The Alert Program *www.alertprogram.com* The Alert Program is used to help teach self-regulation awareness. The website provides information on the program's steps for teaching self-regulation awareness, workshop opportunities and ordering information.	
American Academy of Pediatrics *www.aap.org*	
Association for Science in Autism Treatment *asatonline.org*	
Autism Speaks *www.alertprogram.com*	
Autism Support Network *www.autismsupportbc.ca*	
Behavior Analysis Certification Board *www.bacb.com*	
Behavior Doctor *behaviordoctor.org/material-download*	

Appendix G | Contacts and Resources

Cambridge Center for Behavioral Study *behavior.org*	
Center on PBIS Positive behavior support resources. *www.pbis.org*	
Government of Ireland- Autism Best Practice Guidance *gov.ie - Autism Good Practice Guidance for Schools – Supporting Children and Young People (www.gov.ie)*	
Hand in Hand *wvde.us/wp-content/uploads/2020/02/2020-Hand-in-Hand-Booklet.pdf*	
Head Start Center for Inclusion *headstartinclusion.org* Website addresses existing barriers to effective inclusion. The site includes a variety of current resources to support teachers, professional development providers, and families, including video segments that illustrate evidence-based practices.	
IRIS Center- Autism Internet Modules *iris.peabody.vanderbilt.edu/module/asd1*	
National Autism Association's Caregiver Toolkit *nationalautismassociation.org/docs/BigRedSafetyToolkit.pdf* Information and awareness materials. A checklist for planning and responding to wandering behaviors is included with suggestions for safety tools, first responder profile forms, social stories, and caregiver logs.	
National Autism Center *www.nationalautismcenter.org*	

Appendix G | Contacts and Resources

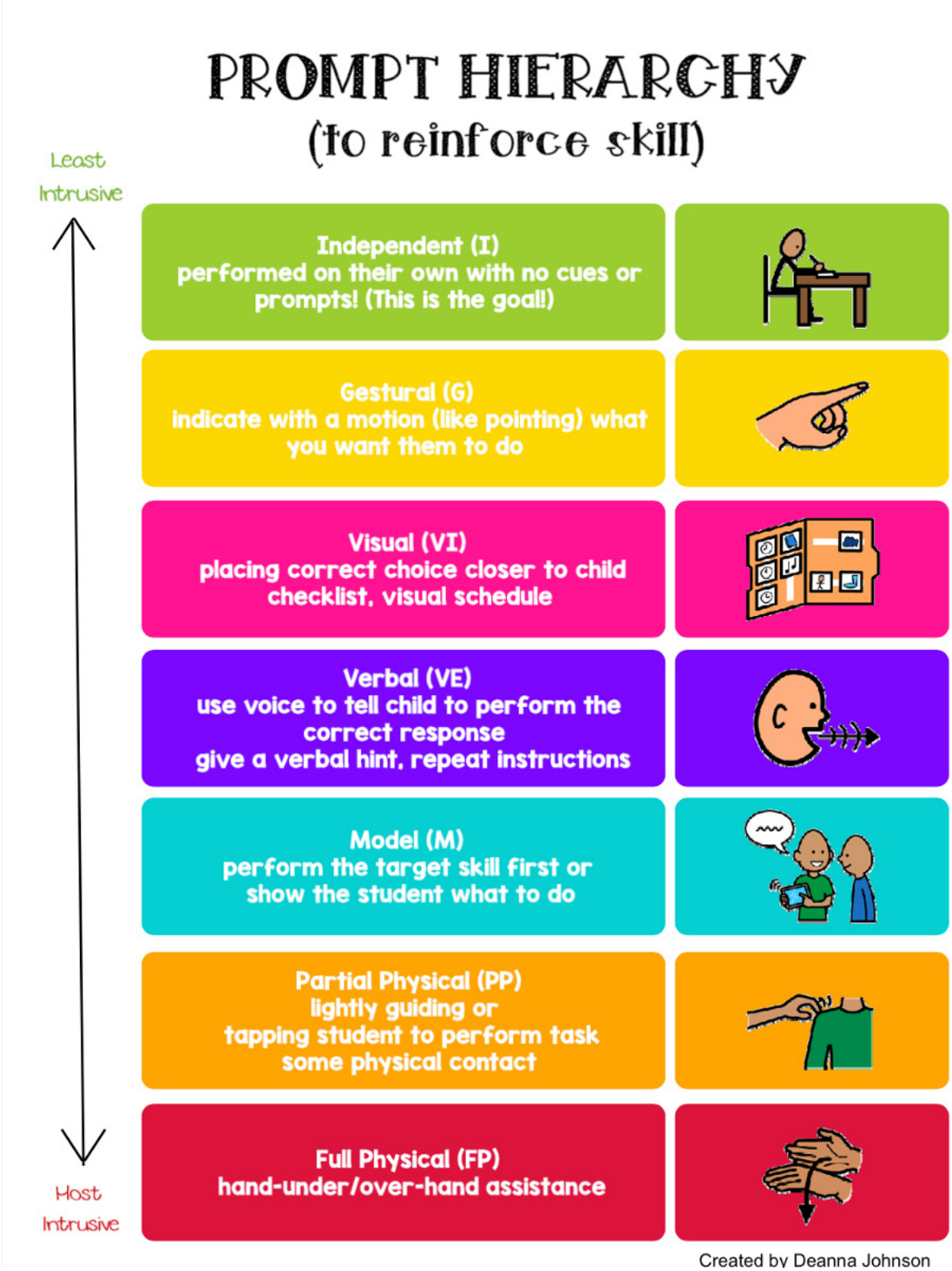
National Clearinghouse on Autism Evidence and Practice *ncaep.fpg.unc.edu*	
National Professional Development Center on ASD *autismpdc.fpg. unc.edu*	
OCALI Autism Internet Modules *autisminternetmodules.org*	
Organization for Autism Research *researchautism.org*	
PATTAN Autism Initiative ABA Supports *www.pattan.net/Disabilities/Autism/Autism-Initiative-ABA-Supports-1*	
Picture Exchange Communication System- Pyramid Educational Consulting Services *www.pecs.com* The Picture Exchange Communication System is an augmentative alternative training package that allows students and adults with autism and other communication deficits to initiate communication. This website provides information on the services, training and products offered by Pyramid Educational Consulting Services, including information on Picture Exchange Communication System.	
Sensory Integration-The Ayers Clinic *www.siglobalnetwork.org* The concept of sensory integration comes from a body of work developed by A. Jean Ayres, PhD, OTR, which assessed how sensory processing and motor planning disorders interfere with daily life function and learning. This website provides information on the research of Dr. Ayres, the services provided by the Ayers Clinic, as well as resources and information on Sensory Integration Theory.	

Appendix G | Contacts and Resources

TEACCH *www.teacch.com* University of North Carolina-Chapel Hill structured teaching program. TEACCH stands for the Treatment and Education of Autistic and Related Communication Handicapped Children.	
WV Autism Awareness Toolkit 2022 *wvde.us/wp-content/uploads/2022/03/WV-Autism-Awareness-Toolkit-2022.pdf*	

APPENDIX H

Handouts



Autism Checklist: Self-Contained Classroom

Teacher:_____ Observer:_____ Date/Time:_____

Quality Classroom Indicator	Present	Comment
Planning		
Visual supports are at the correct level of symbolic functioning, and are used to enhance predictability, facilitate transitions, and help convey expectations.		
A staff schedule showing staff assignments and student activities		
Schedules reflect a variety of learning formats for each student (ex. 1:1 instruction, group, indep.work, and social interaction/leisure)		
Curriculum reflects the core deficits of autism; activities emphasize social skills and functional communication, while maintaining age appropriate engagement and maximizing independent functioning.		
Planned opportunities for sensory opportunities.		
Student activities are related to SOL objectives, IEPs and/or aligned standards.		
Instruction		
Activities are language-based, and staff is encouraging student commenting, asking and answering questions		
Students remain actively engaged in learning opportunities		
Communication directed to students is clear and relevant, appropriate to language ability, accompanied by visual supports as needed		
Adult has student attention prior to delivering instruction. During instruction, instructional cues delivered clearly.		
Instruction pace promotes high rates of correct responding, and uses appropriate and consistent schedules of reinforcement and error correction.		
Instructional methods reflect student needs and are grounded in research-based practices		
Behavior problems are addressed by using giving the student choices, clear expectations and positive reinforcement. All staff is following a Behavior Intervention Plan as appropriate.		
Use of AAC devices, visual supports, or sign for students using these supports is encouraged and utilized across all activities and settings		
Social skills instruction is planned and supported by staff.		
Prompts are delivered based on a consistent hierarchy.		
Highly structured work systems are established to reinforce previously mastered skills.		
Classroom Environment		
Room arrangement has clearly defined visual boundaries for specific activities.		
An appropriate daily schedule is posted for each student		
Comments directed toward students follow a ratio of 7:1 instructive/positive comments to corrective comments.		
"Hands-on" contact with students preserves dignity.		
Reduction of visual stimuli as appropriate to student needs.		
Designated area within room for breaks.		
Professional Responsibilities		
Inter-staff communication is respectful of students and limited in content to classroom issues and instruction. Confidentiality of students is preserved.		
Data are collected during instructional activities for each student; data are tracked, summarized and used to make instructional decisions. (May include FBA/BIP)		
Daily communication with parents is informative, positive and non- judgmental.		

Autism Checklist: Resource and General Education Classroom

Teacher:_____ Observer:_____ Date/Time:_____

Quality Classroom Indicator	Present	Comment
Planning		
Data on student performance is collected and used to plan instruction and collaborate with IEP team members.		
Lesson plans incorporate IEP goals		
Instruction		
Each student spends most of his/her time in active learning activities.		
Classroom assistants (when present) are actively engaged with students in a manner that supports independence.		
Social skills are modeled and are taught in the context of academics (cooperative learning, partner work, peer editing)		
Skill instruction in communication and social behaviors is embedded in naturally occurring lessons and routines.		
Classroom Environment		
A daily classroom schedule is clearly posted, referred to and utilized by students.		
Integration and social opportunities with peers are present across school environments. General education students interactive positively.		
Assistive technology and or visual supports are available to support learning as needed.		
The teacher uses reinforcement and modeling to support positive behavior.		
Instructional areas are clearly defined and materials are accessible to students.		
Students with ASD are given opportunities to make choices and develop choice making skills.		
Professional Responsibilities		
Behavior plans, IEP accommodations, and BIPs are implemented as needed		
Teacher attends and contributes to IEP and other special education meetings as appropriate.		
Staff members refer to students using person-first language. They communicate with and to students in a manner that indicates respect.		
Staff maintains the confidentiality of students and families.		

TEACHING IMPLEMENTATION PLAN (TIP)

Autism Classroom News www.autismclassroomresources.com

Student:	**Case Manager / Teacher:**
Grade:	**School Year:**
Specified Times in Environments or Instruction:	**Date TIP Completed:**
Communication Method: ☐ Verbal ☐ AAC Device ☐ Sign Language ☐ Pictures Notes:	**Reinforcers**
Medical Concerns:	**Safety Concerns:**
Sensory Strategies:	
Toileting: ☐ Initiates to Go ☐ Independent ☐ Scheduled ☐ Diapers ☐ Began Schedule training	
Behavior: ☐ No concerns ☐ Behavioral Concerns ☐ Plan Developed (attach) ☐ FBA Completed ☐ FBA Underway ☐ FBA Needed	
Overall Curricula: (Attach protocol) ☐ HELP ☐ Brigance ☐ STAR ☐ ABLLS-R ☐ VB-MAPP ☐ AFFLS ☐ Unique Learning System ☐ Murdoch Program Library ☐ State Standards ☐ Other:	

Student: _____ Year: _____ Page 2

Current Reading Curriculum (include last level / lesson)
Current Math Curriculum (include last level / lesson)
Daily Schedule Used: ☐ independent ☐ Needs Prompting ☐ App ☐ Notebook ☐ Wall/Desk ☐ Group Schedule ☐ Full Day Individual Schedule ☐ Part-Day individual Schedule ☐ First-Then ☐ Written ☐ Written Cards ☐ Picture/Written Page/App ☐ Picture cards ☐ Objects
Work System: ☐ Basket System ☐ Notebook / Folder System ☐ No schedule ☐ Object Schedule ☐ Match colors schedule ☐ Match letters/number schedule ☐ List ☐ App ☐ Tasks at table ☐ Finished basket at station ☐ Travels to get tasks ☐ Travels to put tasks away # of Baskets: ☐ # of Items ☐ Duration worked ☐ minutes
Staff Training Needed:

Student: _____ Year: _____ Page 3

Notes:

Goal #	Goal / Objective	Primary Teaching Activity	Incidental / Generalization Opportunities	Instructional Method or Curriculum	Data Collection Sheet / System	Materials Needed/ Notes

Student: _____ Year: _____ Page 4

Goal #	Goal / Objective	Primary Teaching Activity	Incidental / Generalization Opportunities	Instructional Method or Curriculum	Data Collection Sheet / System	Materials Needed/ Notes

REINFORCER CHECKLIST

STUDENT: _____ AGE:_____

COMPLETED BY: _____ DATE: _____

Note N/A if:
1. The student does not like the item.
2. You do not wish an item below to be used.
3. If the item is not age or environmentally appropriate.

EDIBLE REINFORCERS:

	YES	NO
Candy:		
1. M&M's	____	____
2. jelly beans	____	____
3. licorice	____	____
4. candy cane	____	____
5. gum	____	____
6. Smarties	____	____
7. lollipops	____	____
8. chocolate	____	____
9. candy kisses	____	____
10. _____	____	____
Cereal:		
11. Cheerios	____	____
12. Cookie Crisps	____	____
13. Fruit Loops	____	____
14. Trix	____	____
15. _____	____	____
Fruit:		
16. raisins	____	____
17. apples	____	____
18. oranges	____	____
19. bananas	____	____
20. _____	____	____
Liquid:		
21. milk	____	____
22. choc. Milk	____	____
23. juice	____	____
24. soda pop	____	____
25. lemonade	____	____
26. _____	____	____
Frozen:		
27. Popsicle	____	____
28. ice cream	____	____
29. M & M.s	____	____
30. _____	____	____
Soft:		
36. cottage cheese	____	____
37. peanut butter	____	____
38. jam/jelly	____	____
39. ice cream toppings	____	____
40. _____	____	____
Others:		
41. cake	____	____
42. cup cakes	____	____
43. doughnuts	____	____
44. crackers	____	____
45. frosting	____	____
46. corn chips	____	____
47. cheese balls	____	____
48. Doritos	____	____
49. cookies	____	____
50. popcorn	____	____
51. Animal Crackers	____	____
52. Cracker Jacks	____	____
53. raw veggies	____	____
54. _____	____	____

MATERIAL REINFORCERS:

1. stopwatch	____	____
2. hand cream	____	____
3. silly putty	____	____
4. bubbles	____	____
5. combs	____	____
6. Chap Stick	____	____
7. Play Doh	____	____
8. stickers	____	____
9. perfume	____	____
10. toy instruments	____	____
11. boats to make	____	____
12. cars to make	____	____
13. puzzles	____	____

31. pudding ____ ____
32. Jell-o ____ ____
33. yogurt ____ ____
34. marshmallow ____ ____
35. cheese ____ ____

MATERIAL REINFORCERS (cont):

YES NO

19. stamps and stickers ____ ____
20. masks ____ ____
21. paper/crayons ____ ____
22. fans ____ ____
23. balloons ____ ____
24. badges ____ ____
25. bean bags ____ ____
26. hats ____ ____
27. mirrors ____ ____
28. toy games ____ ____
29. books ____ ____
30. coloring books ____ ____
31. whistles ____ ____
32. blocks ____ ____
33. paint brushes ____ ____
34. crown ____ ____
35. colored chalk ____ ____
36. _____ ____ ____

SOCIAL REINFORCERS:

1. wiggle arms ____ ____
2. blowing (i.e. face) ____ ____
3. squeeze above knees ____ ____
4. hugging ____ ____
5. shaking hands ____ ____
6. twitching noses ____ ____
7. kisses ____ ____
8. tickling ____ ____
9. winking ____ ____
10. give me (5-10) ____ ____
11. pinching cheeks ____ ____
12. rubbing noses ____ ____
13. bumble bee fingers ____ ____
14. smiling ____ ____
15. duck noises ____ ____
16. playing with lips ____ ____
17. patting
18. praising ____ ____
19. wiggling ears ____ ____
20. back scratch ____ ____
21. belly rub ____ ____
22. nodding ____ ____
23. _____ ____ ____

14. bubble gum ____ ____
15. straws ____ ____
16. powder ____ ____
17. nail polish ____ ____
18. beads ____ ____

OTHER REINFORCERS:

YES NO

1. rocking ____ ____
2. brushing hair (own or others) ____ ____
3. clapping hands ____ ____
4. carry upside down ____ ____
5. airplane rides ____ ____
6. drawing pictures ____ ____
7. run outside ____ ____
8. hide and seek ____ ____
9. piggyback rides ____ ____
10. chase ____ ____
11. paper and crayons ____ ____
12. finger plays ____ ____
13. peek-a-boo ____ ____
14. sing songs ____ ____
15. imitating kids ____ ____
16. blowing whistles ____ ____
17. New Years snakes ____ ____
18. sprinkle glitter ____ ____
19. tickles w/ objects ____ ____
20. music instruments ____ ____
21. flashlights ____ ____
22. shoulder rides ____ ____
23. run in the gym ____ ____
24. water play ____ ____
25. puppets ____ ____
26. flushing the toilet ____ ____
27. sand/dirt play ____ ____
28. trampoline ____ ____
29. dancing ____ ____
30. running on ramp ____ ____
31. free time in gym ____ ____
32. sitting on shelf ____ ____
33. bring toy from home ____ ____
34. turn lights off/on ____ ____
35. pouring liquids back and forth ____ ____
36. rolling ball on ramp ____ ____
37. play in front of mirror ____ ____
38. spread peanut butter ____ ____
39. pushing walker/cart ____ ____
40. watch TV ____ ____
41. story on teacher.s lap ____ ____

42. squeeze toothpaste ____ ____
43. playing with watch ____ ____

	YES	NO
44. games	____	____
45. being the teacher	____	____
46. talking on phone	____	____
47. markers and pens	____	____
48. draw on chalkboard	____	____
49. lunch/snack helper	____	____
50. pushing cart	____	____
51. pulling wagon	____	____
52. field trip	____	____
53. twirling in the air	____	____
54. hanging pictures	____	____
55. mom come to class	____	____
56. mom leave class	____	____
57. blanket over head	____	____
58. take their picture	____	____
59. throw things in trash	____	____
60. helping cook	____	____
61. roll down hill	____	____
62. teacher make dough	____	____
63. paint w/ cotton balls	____	____
64. climb on tractor	____	____
65. teacher.s helper	____	____
66. make picture		
w/ popcorn	____	____
w/ noodles	____	____
w/ string	____	____
67. have someone whistle	____	____
68. running errands	____	____
69. climbing in boxes	____	____
70. pushing stapler	____	____
71. playing with jewelry	____	____
72. dressing up	____	____
73. drink out of pop bottle	____	____
74. playing on mats	____	____
75. time alone to stim	____	____
76. Simon says	____	____
77. playing with money	____	____
78. climbing	____	____
79. rocking a boat	____	____
80. cutting pictures	____	____
81. playing with glue	____	____
82. tour of school	____	____

	YES	NO
88. basketball games	____	____
89. finger paint		
w/ pudding	____	____
w/ soap	____	____
w/ paint	____	____
90. blowing in bottles	____	____
91. pulling toilet paper/ towel out of holder	____	____
92. racing	____	____
93. different seat on bus	____	____
94. front seat on bus	____	____
95. wagon rides	____	____
96. thrown in the air	____	____
97. raiding refrigerator	____	____
98. push copier button	____	____
99. watering plants	____	____
100. feeding the fish	____	____
101. watching cars go by and waving	____	____
102. watch fire engines	____	____
103. walk on balance beam	___	___
104. going for walks	____	____
105. making Kool-Aid	____	____
106. wiping off tables	____	____
107. taking trash out	____	____
108. icing cupcakes	____	____
109. spraying bottles	____	____
110. watch popcorn pop	____	____
111. machines	____	____
112. opening refrigerator	____	____
113. carrying the ball	____	____
114. tape, tear, put on	____	____
115. open/close window	____	____
116. playing with tools	____	____
117. birthday parties	____	____
118. help with other kids	____	____
119. play with timer beads	___	___
120. pushing buttons	____	____
121. play with other kids	____	____
122. play with zippers and pockets	____	____
123. walk with feet on top of		

83. treasure hunt ____ ____
84. playing with cards ____ ____
85. crawling under table ____ ____
86. looking at pictures ____ ____
87. riding bicycle ____ ____
of therapist's feet ____ ____
124. blow bubbles w/ straw ___ ___
125. walking with stilts ____ ____
126. swimming ____ ____
127. listening to watches ____ ____

	YES	NO
128. listen to tape recorder	____	____
129. have a shadow show	____	____
130. play with computer	____	____
131. stringing beads	____	____
132. turn water off/on	____	____
133. sunshine and shadows	____	____
134. hinges	____	____
135. smelling spices	____	____
136. _____	____	____

PROCESSES REINFORCERS:

1. fishing game	____	____
2. train delivery	____	____
3. bean bag throw	____	____
4. dart board	____	____
5. grab bag	____	____
6. surprise box	____	____
7. spinner	____	____
8. reinforcers hidden between worksheets	____	____
9. random timer bell	____	____
10. _____	____	____

List any other items/activities/interactions your student prefers if not listed above:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

ABC Data Form Student: _____ School: _____ Observer: _____ Relationship/Position: _____

Information	Setting Events (check all that apply, if known)	Activity/Task (check all that apply)	Antecedent (What happened *immediately* before?)	Behavior/Duration (What did the student do/say? Check all that apply)	Consequence(s) Immediate & Delayed (if applicable)	Effect of Immediate Consequence on Behavior	Possible Function	Possible Related Skill Deficit
Date: Day of Week (circle): *Monday* *Tuesday* *Wednesday* *Thursday* *Friday* Time: Place: Staff Present: Approx # of Students: --- **The back of the page may be used for recording additional comments or details as needed.**	☐ Hungry / Thirsty (circle) ☐ Sad / Angry (circle) ☐ Lack of sleep ☐ Illness ☐ Physical pain ☐ Missed medication ☐ Change in routine ☐ Conflict at home ☐ Conflict at school ☐ Unfamiliar adults ☐ Unfamiliar peers ☐ Absence of familiar adults ☐ Absence of familiar peers ☐ Unusual visual stimulation ☐ Unusual auditory stimulation Other/Details:	☐ Small group ☐ Large group ☐ One-on-one ☐ Math ☐ Reading ☐ Writing ☐ Specials _____ ☐ Transition _____ ☐ Unstructured _____ Other/Details:	☐ Task explanation ☐ Lesson presentation ☐ Difficult / easy / lengthy / low-interest task (circle) ☐ Independent work ☐ Physical demand ☐ Lack of attention ☐ Feedback (academic) ☐ Feedback (behavior) ☐ Reprimand ☐ Attention peer / teacher positive / negative (circle) ☐ Request by peer / teacher (circle) Other/Details:	☐ Physical aggression staff / peers (circle) ☐ Verbal aggression staff / peers (circle) ☐ Verbal outburst ☐ Elopement (ran out of room / school) ☐ Property destruction ☐ Self-injury ☐ Self-harm threat(s) ☐ Off-task ☐ Deliberate refusal (verbal or physical) ☐ Negative self-talk ("I can't do this / I'm stupid") ☐ Out-of-seat behavior (under table, roaming room, etc) **Approx. duration:** _____ secs / mins Other/Details:	**Immediate:** ☐ Staff ignored ☐ Withdrew attention ☐ Peer attention - positive / negative (circle) ☐ Warning - public / private (circle) ☐ Reprimand - public / private (circle) ☐ Correction - public / private (circle) ☐ Response cost (e.g., loss of point/token) ☐ Verbal redirection to activity / place ☐ Physical redirection to activity / place ☐ Interrupted/blocked behavior ☐ Removed from area ☐ Others removed ☐ Required to continue task/activity ☐ Removal of task ☐ Time out: (____mins) ☐ Sent to office ☐ Physical restraint Other/Details: **Delayed:** ☐ Parent contact ☐ In-school susp. ☐ Out-of-school susp. ☐ Detention Lunch / after school (circle) ☐ Physical restraint Other/Details:	**The behavior:** ☐ Worsened *greatly* ☐ Worsened *somewhat* ☐ No effect / continued ☐ Improved *somewhat* ☐ Improved *greatly* Other/Details:	☐ Get attention (teacher/staff) ☐ Get attention (peers) ☐ Access to preferred object/item ☐ Access to preferred activity/setting ☐ Avoid/escape attention (peers) ☐ Avoid/escape attention (teacher/staff) ☐ Avoid/escape setting ☐ Avoid/escape activity ☐ Avoid/escape academic task ☐ Reduce sensory input (overstimulated) ☐ Increase sensory input (self-stimulation) Other/Details:	**Difficulty with:** ☐ Reading _____ ☐ Math _____ ☐ Writing _____ ☐ Keeping focus ☐ Transitions _____ ☐ Considering conseq. of actions (impulsive) ☐ Persisting with difficult/tedious tasks ☐ Considering different solutions to a problem ☐ Verbally expressing self/needs/wants ☐ Emotion regulation ☐ Irritability/anxiety ☐ Sensory/motor ☐ Ambiguity ☐ Inaccurate negative thoughts ☐ Social cues ☐ Shifting from original plan/idea ☐ Understanding how one's behavior affects others ☐ Basic social skills ☐ Understanding other perspectives ☐ Sense of time ☐ Deviating from routine/rules ☐ Handling unpredictability, uncertainty ☐ Seeking attention appropriately Other/Details:

ABC Observation Form

Student Name: _____ Observation Date: _____

Observer: _____ Time: _____

Activity: _____ Class Period: _____

Behavior: _____

ANTECEDENT	BEHAVIOR	CONSEQUENCE

ABC Observation Form

Student: _____ Observer: _____

Date: _____ Time: _____ Activity: _____

Context of Incident:

Antecedent:

Behavior:

Consequence:

Comments/Other Observations:

SCATTER PLOT ASSESSMENT

Student Name: _____ Starting Date: _____

☐ socially engaged ☒ low rates of social engagement ■ not socially engaged

Observer: _____

Time of day / Five minute intervals	5/1	5/2	5/3	5/4	5/5	5/8	5/9	5/10	5/11	5/12
9:00										
9:05										
9:10										
9:15										
9:20										
9:25										
9:30										
9:35										
9:40										
9:45										
9:50										
9:55										
10:00										

FUNCTIONAL BEHAVIORAL ASSESSMENT MATRIX

Observed Behaviors	*Transition*	*Large Group Lecture*	*Small Group*	*Independent Work*	*Paper-pencil*	*Worksheet/ Workbook*	*Read aloud*	*Read silently*	*Instructional game*	*Media*	*Other*
Off-task											
Out-of-seat											
Talk-out											
Non-compliant											
Other											

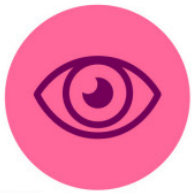
Code: ☐ = no behavior

☒ = low rates of behavior

■ = persistent behavior

MY SENSORY MENU

VISION



- ☐ Water play
- ☐ Texture ring
- ☐ Rattles
- ☐ Nature play
- ☐ Ball pit
- ☐ Textured book
- ☐ Bubbles
- ☐ Finger painting
- ☐ Sensory bins
- ☐ Water painting
- ☐ Sensory stories
- ☐ Bath paint
- ☐ Volcano experiment
- ☐ Lego
- ☐ Slime
- ☐ Cornflour bouncy balls
- ☐ Sensory Rice
- ☐ Fidget toys
- ☐ Sensory jars

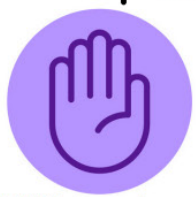
HEARING

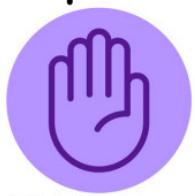
- ☐ Water play
- ☐ Rattles
- ☐ Nature play
- ☐ Sensory bins
- ☐ Sensory story
- ☐ Volcano experiment
- ☐ Sensory Rice
- ☐ Sensory jars

SMELL

- ☐ Nature play
- ☐ Massage (oils)
- ☐ Shaving foam
- ☐ Sensory bins
- ☐ Bubble baths
- ☐ Sensory story
- ☐ Baking
- ☐ Smell boxes

TOUCH





- ☐ Water play
- ☐ Texture ring
- ☐ Rattles
- ☐ Nature play
- ☐ Ball pit
- ☐ Textured book
- ☐ Massage
- ☐ Sandpit
- ☐ Shaving foam
- ☐ Gloop
- ☐ Mud play
- ☐ Finger painting
- ☐ Playdough
- ☐ Sensory bins
- ☐ Water painting
- ☐ Bubble baths
- ☐ Sensory stories
- ☐ Clay
- ☐ Baking
- ☐ Lego
- ☐ Kinetic sand
- ☐ Slime
- ☐ Paper mache
- ☐ Cornflour bouncy balls
- ☐ Sensory Rice

- ☐ Fidget toys
- ☐ Threading
- ☐ Weighted blanket
- ☐ Weighted vest
- ☐ Body sock
- ☐ Weighted stuffed puppy
- ☐ Blanket wrap
- ☐ Swaddle wrap

PROPRIOCEPTION

- ☐ Texture ring
- ☐ Ball pit
- ☐ Massage
- ☐ Swings
- ☐ Trampoline
- ☐ Fidget toys
- ☐ Weighted blanket
- ☐ Weighted vest
- ☐ Body sock
- ☐ Weighted stuffed puppy
- ☐ Blanket wrap
- ☐ Swaddle wrap

VESTIBULAR

- ☐ Water play
- ☐ Nature play
- ☐ Ball pit
- ☐ Swings
- ☐ Trampoline
- ☐ Jumping
- ☐ Dancing
- ☐ Bouncing on an exercise ball
- ☐ Wiggle cushions

TASTE

- ☐ Baking

VERYSPECIALTALES.COM

APPENDIX I
References

The following sources were used in the development of the guidance document and can be referred to throughout.

American Occupational Therapy Association (2020). Occupational therapy practice framework: Domain and process- 4th edition. *American Journal of Occupational Therapy*, 74, (2), 7412410010p1–7412410010p87. *doi.org/10.5014/ajot.2020.74S2001*

American Psychological Association (2022). DSM-5-TR (tm) Classification. American Psychiatric Association Publishing. *books.google.com/books?id=ZmejzgEACAAJ*

Baumer, N. & Frueh, J. (2021, November 3). *What is neurodiversity?* Harvard Health Publishing: Harvard Medical School. *www.health.harvard.edu/blog/what-is-neurodiversity-202111232645*

Ben-Sasson, A., Gal, E., Fluss, R., Katz-Zetler, N., & Cermak, S. A. (2019). Update of a Meta-analysis of Sensory Symptoms in ASD: A New Decade of Research. Journal of Autism and Developmental Disorders, 49(12), 4974–4996.

Benson, J. D., Beeman, E., Smitsky, D., & Provident, I. (2011). The deep pressure and proprioceptive technique (DPPT) versus nonspecific child-guided brushing: A case study. Journal of Occupational Therapy, Schools, and Early Intervention, 4, 201–214. *dx.doi.org/10.1080/19411243. 2011.629536*

Benson, J. D., Smitsky, D., Collins, A., Chippich, E., Connell, C., & Blaskowitz, M. (2022). Effect of a Sensory Activity Schedule on the On-Task Behaviors of Children with Autism Spectrum Disorder...American Occupational Therapy Association, INSPIRE Conference, March 31-April 3, 2022, San Antonio, Texas. American Journal of Occupational Therapy, 76, 1. *doi-org.wvu.idm.oclc.org/10.5014/ajot.2022.76S1-PO223*

Bestbier, L., & Williams, T. I. (2017). The Immediate Effects of Deep Pressure on Young People with Autism and Severe Intellectual Difficulties: Demonstrating Individual Differences. Occupational Therapy International, 24(1), 1–7.

Bodison, S. C., & Parham, L. D. (2018). Specific sensory techniques and sensory environmental modifications for children and youth with sensory integration difficulties: A systematic review. American Journal of Occupational Therapy, 72, 7201190040. *doi.org/10.5014/ajot.2018*

Butera, C., Ring, P., Sideris, J., Jayashankar, A., Kilroy, E., Harrison, L., Cermak, S., & Aziz, Z. L. (2020). Impact of Sensory Processing on School Performance Outcomes in High Functioning Individuals with Autism Spectrum Disorder. Mind, Brain & Education, 14(3), 243–254.

Center for Disease Control. (2022, March 9). *Treatment and intervention services for autism spectrum disorder.*

Creighton, C. (1992). The origin and evolution of activity analysis. American Journal of Occupational Therapy 46:45-48. doi:10.5014/ajot.46.1.45. *ajot.aota.org/article.aspx?articleid=1876534*.

Appendix I | References

Delprato, D. (2001). Comparisons of discrete-trial and normalized behavioral language intervention for young children with autism. *Journal of Autism and Developmental Disorders*, 31, 3, 315-325.

Department of Health and Human Services. Retrieved April 5, 2011 from website *autism-watch.org/general/nimh.shtml*.

Disabilities Association of America, June 1-11.

DiSalvo, C., and Oswald, D. (2002). Peer-mediated interventions to increase the social interaction of children with autism: Consideration of peer expectancies. *Focus on Autism and Other Developmental Disabilities*, 17, 4, 198-207.

Dunbar, S. B., Carr-Hertel, J., Lieberman, H. A., Perez, B., & Ricks, K. (2012). A pilot study comparison of sensory integration treatment and integrated preschool activities for children with autism. Internet Journal of Allied Science and Practices, 10(3), Article 6. Retrieved from *nsuworks. nova.edu/ijahsp/vol10/iss3/6/*

Facilitator's Guide for Positive Behavior Support, created for the Bureau of Instructional Support and Community Service, Florida Department of Education by the staff of the Positive Behavioral Support Project with support from the Department of Child & Family Studies' Louis de la Parte Florida Mental Health Institute University of South Florida and the Rehabilitation Research & Training Center on Positive Behavioral Support. The document is posted at: *flpbs.fmhi.usf.edu/resources_indstudents.asp*.

Fedewa, A. L., & Erwin, H. E. (2011). Stability balls and students with attention and hyperactivity concerns: Implications for on-task and in-seat behavior. American Journal of Occupational Therapy, 65, 393–399. *doi.org/10.5014/ajot. 2011.000554*

Gee, B., Thompson, K., Pierce, A., Toupin, M., & Holst, J. (2015). The effectiveness of auditory stimulation in children with autism spectrum disorders: A case-control study. *International Journal of Therapy & Rehabilitation,* 22(1), 36–46.

Goldstein, H. (2002). Communication intervention for children with autism: A review of treatment efficacy.

Goldstein, H., and Wickstrom, S. (1986). Peer intervention effects on communicative interaction among handicapped and nonhandicapped preschoolers. *Journal of Applied Behavior Analysis*, 19, 209-214.

Gray, C. (2008). The Impact of Home and School Interventions on Students with ASD. Dissertation, Washington State University.

Henry, S., and Smith Myles, B. (2007). *The Comprehensive Autism Planning System (CAPS) for Individuals with Asperger Syndrome, Autism and Related Disabilities: Integrating Best Practices Throughout the Student's Day*. Shawnee Mission, Kansas: Autism Asperger Publishing Co.

Hodgetts, S., Magill-Evans, J., & Misiaszek, J. (2011). Effects of weighted vests on classroom behavior for children with autism and cognitive impairments. Research in Autism Spectrum Disorders, 5, 495–505. *doi.org/10.1016/ j.rasd.2010.06.015*

Appendix I | References

Hyman, S.L., Levy, S.E., Myers, S.M., & AAP Council on Children with Disabilities, Section on developmental and behavioral pediatrics. (2020). Identification, evaluation, and management of children with autism spectrum disorder. Pediatrics, 145(1), e20193447.

Ismael, N., & Lawson, L. M. (2018). Relationship Between Sensory Processing and Participation in Daily Occupations for Children with Autism Spectrum Disorder: A Systematic Review of Studies That Used Dunn's Sensory Processing Framework. *AJOT: American Journal of Occupational Therapy*, 72(3).

Iwata, B., and Worsdell, A. (2005). Implications of functional analysis methodology for the design of intervention programs. *Exceptionality*, 13, 1, 25-34.

J. Heflin and R. Simpson. (1998). Interventions for children and youth with autism: Prudent choices in a world of exaggerated claims and empty promises. Part II: Legal/Policy analysis and recommendation for selecting interventions and treatments. *Focus on Autism and Other Developmental Disabilities*, 13, 4, 212-220. Copyright 1998 by PRO-ED, Inc. Reprinted with permission.

Kashefimehr, B., Kayihan, H., & Huri, M. (2018). The Effect of Sensory Integration Therapy on Occupational Performance in Children with Autism. OTJR: Occupation, Participation & Health, 38(2), 75–83. *doi-org.wvu.idm.oclc.org/10.1177/1539449217743456*

Koegel, L., Koegel, R., and Brookman, L. (2005). Child-initiated interactions that are pivotal in intervention for children with autism. In E. Hibbs and P. Jensen (Eds.), *Psychosocial Treatments for Child and Adolescent Disorders* (2nd Edition, pp. 633-657). Washington, DC: American Psychological Association.

Martin, R., & Wilkins, J. (2021). Creating visually appropriate classroom environments for students with autism spectrum disorder. Intervention in School and Clinic, 57(3), 176–181. *doi.org/10.1177/10534512211014882*

Meindl, J.N., Delgado, D., & Casey, L.B. (2020). Increasing engagement in students with autism in inclusion classrooms. Children and Youth Services Review, 111(1). *doi.org/10.1016/j.childyouth.2020.104854*

Miller-Kuhaneck, H., & Watling, R. (2018). Parental or teacher education and coaching to support function and participation of children and youth with sensory processing and sensory integration challenges: A systematic review. American Journal of Occupational Therapy, 72, 72011900030. *doi.org/10. 5014/ajot.2018.029017*

Mische Lawson, L., Foster, L., Hamner, K., & Wright, L. (2022). Exploring Effects of Sensory Garments on Participation of Children on the Autism Spectrum: A Pretest-Post test Repeated Measure Design. Occupational Therapy International, 1–8. *doi-org.wvu.idm.oclc.org/10.1155/2022/3540271*

Murdock, L. C., Dantzler, J. A., Walker, A. N., & Wood, L. B. (2014). The effect of a platform swing on the independent work behaviors of children with autism spectrum disorders. Focus on Autism and Other Developmental Disabilities, 29

Nagro, S.A., Hooks, S.D., Fraser, D.W., Cornelius, K.E. (2016). Whole-group response strategies to promote student engagement in inclusive classrooms. *Teaching Exceptional Children*, 48, 345-359.

Appendix I | References

Sattler, J. M (2014). Foundations of behavioral, social, and clinical assessment of children (6th ed.). Jerome M. Sattler, Publisher, Inc.

Schaaf, R. C., Dumont, R. L., Arbesman, M., & May-Benson, T. A. (2018). Efficacy of occupational therapy using Ayres Sensory Integration®: A systematic review. American Journal of Occupational Therapy, 72, 7201190010. *doi.org/10.5014/ajot.2018.029431*

Schaaf, R., Benevides, T., Mailloux, Z., Faller, P., Hunt, J., Hooydonk, E., Freeman, R., Leiby, B., Sendecki, J., & Kelly, D. (2014). An Intervention for Sensory Difficulties in Children with Autism: A Randomized Trial. Journal of Autism & Developmental Disorders, 44(7), 1493–1506. *doi-org.wvu.idm.oclc.org/10.1007/s10803-013-1983-8*

Schoen, S., Miller, L., & Sullivan, J. (2015). A pilot study of Integrated Listening Systems for children with sensory processing problems. Journal of Occupational Therapy, Schools, and Early Intervention, 8, 256–276. *doi.org/10.1080/19411243.2015.1055418*

Strickland-Cohen, M.K. & Simonsen, B. (January, 2022). *Function-based support*. Center on PBIS, University of Oregon. *www.pbis.org*.

Watling, R., & Hauer, S. (2015). Effectiveness of Ayres Sensory Integration® and Sensory-Based Interventions for People with Autism Spectrum Disorder: A Systematic Review. American Journal of Occupational Therapy, 69(5), p1–p12. *doi-org.wvu.idm.oclc.org/10.5014/ajot.2015.018051*

Weaver, L. L. (2015). Effectiveness of Work, Activities of Daily Living, Education, and Sleep Interventions for People with Autism Spectrum Disorder: A Systematic Review. American Journal of Occupational Therapy, 69(5), p1–p11. *doi-org.wvu.idm.oclc.org/10.5014/ajot.2015.017962*

Michele L. Blatt
West Virginia Superintendent of Schools

/WVEducation @wveducation

wvde.us