ESSENTIAL COMPONENTS OF INSTRUCTION –

PRESCHOOL THROUGH HIGH SCHOOL

CONSIDERATIONS

This section describes different components of instruction that should be addressed with students with ASD from preschool through high school. It includes an explanation of the unique learning styles and preferences of students with ASD and considerations for creating effective learning environments. This section is best used in conjunction with the remainder of the document because it offers strategies to address skills that form the foundation for learning and underlie all other areas (e.g., attention and imitation). It incorporates information from the other sections and applies it to teaching situations and presents specific techniques to address other areas. The ideas are intended to work within the general curriculum.

**Strategies and information in this section can apply not only during the school years but across the lifespan.**

DEFINITION OF “CURRICULUM”

John Dewey referred to curriculum as “… a continuous reconstruction, moving from the child’s present experience out into that represented by the organized bodies of truth that we will call studies …” (The Child and the Curriculum, pp. 11-12). Originally, proposed more than one hundred years ago, this definition remains applicable to today’s educational challenges. Building on Dewey’s main points, curriculum is defined as an organized program of instruction designed by a team of professionals that responds to the changing needs of students and supports them toward independence and lifelong learning. This definition does not refer to a specific methodology, commercial product, or author’s invention.

Numerous methods or instructional strategies and related services are specifically designed for use with students with ASD. Professionals may incorporate a variety of approaches into instruction, but it is critical that instruction is:

• Matched to the strengths and needs of the students

• Modified as students change

• Effective in supporting independence and learning

• Aligned with state adopted content standards

LEARNING STYLES OF INDIVIDUALS WITH ASD

Students with ASD have the capacity to learn a variety of concepts and skills; however, because of unique communication and sensory motor processing issues, it is critical that instruction is designed with their individual learning styles and preferences in mind. Learning styles and preferences are based upon:

**Student Strengths**: Students with ASD may exhibit varied skills (e.g., visual, memory, music). These strengths may dictate a student’s most effective mode of learning.

**Student Interests**: Students with ASD may focus on specific topics of interest. This focus may allow them to develop a unique perspective, a specific skill, or an intense depth of understanding; therefore, it is important to support and expand areas of interest and not extinguish them. Indeed, these interests can lead to meaningful leisure activities and employment outcomes.

Student Motivators: Motivators come from every person’s need to derive reward for pursuits and interactions.

Teachers through instruction, build in assumptions of successful motivators such as grades, praise, stickers, etc. It is important to identify, with the help of family and the student, the motivators that will provide incentives toward learning for a given student. Students with ASD often have unusual motivators that include completion of tasks, sensory-based stimuli, special interests, tactile-based stimuli, pace of activity, etc. Teachers need to understand and tolerate motivators, even if somewhat extraordinary, that will not inhibit the learning environment.

**Communication Style**: Students with ASD have unique communication abilities and difficulties that may make it difficult for the teacher to recognize the effectiveness of the process. The communication process can be made difficult, because professionals may assume students do not understand and then make conclusions based on student input or non-input. In traditional teaching, students must communicate back understanding to the teacher. Teachers who are most effective in the communication process use multiple strategies simultaneously such as visual, auditory, written, symbolic, etc.

**Sensory Motor Processing**: Sensory motor proficiency involves taking in information from one’s body and the environment through a variety of sensory channels, interpreting/understanding these sensations, and then developing a response to them. Sensory systems include auditory, visual, tactile, proprioceptive, vestibular, olfactory, and gustatory. Students with ASD may rely heavily on one or two sensory channels to compensate for deficits in other modalities. Preferences for specific sensory systems may, therefore, result in learning styles that are different from those of typically developing peers. For example, to be successful, students with ASD may need to pair a motor activity with learning new material such as isometric exercises paired with multiplication tables.

**Pattern of Skill Development**: The premise of instruction is to teach in a sequential pattern of skill development. Students with ASD may have highly developed skills in one area and be delayed in others. Professionals should not assume that with a highly developed skill there are not gaps in learning. Teachers may need to teach holistically rather than sequential levels. Learning need not be linear to be understood.

**Social Understanding**: This refers to the ability to read social cues, the context of those clues, and then behave/ respond accordingly. Typically, social situations are often very stressful for students with ASD. Teaching techniques that rely on social situations may cause stress because of their reliance on social relationships. Students may have an inability to participate appropriately in the context of class discussions.

TWICE EXCEPTIONAL

A subset of students with ASD are be labeled as twice exceptional. Twice-exceptional children are those children who are identified as having a disability such as ASD, Asperger’s Syndrome, ADHD, a physical disability, a sensory disability, or a specific learning disability and yet are also identified as being gifted or talented (Colorado Department of Education, 2009). These children may be gifted and talented in one or more areas of exceptionality. Possible areas of exceptionality include specific academics like mathematics, science, or social studies, leadership, creativity, general intellectual ability, and visual or performing arts (Colorado Department of Education, 2009). However, without the proper interventions, these children’s success can be greatly hindered. King (as cited in Heward, 2009) recommends that teachers support the social and emotional needs of twice-exceptional students by doing the following:

• Foster clear understanding of students’ disabilities as well as their strengths to promote self-

understanding and self-acceptance.

* Encourage students to succeed, and enlist support of parents and other teachers in this endeavor.

• Teach coping strategies to use when students become frustrated.

• If needed, encourage counseling to monitor each student’s emotions that accompany frustration and perceived failures.

• Think of these children not only as having a disability or as being gifted but as having individual needs.

• Provide support in establishing and maintaining social relationships.

• Ensure parents’ understanding of their child’s giftedness and disabilities, emphasizing the child’s potential.

• Support students with future goals and career planning; make sure students are aware of their potential and encourage them not to sell themselves short.

• Provide a mentorship with an adult who is also gifted/learning disabled.

Twice-exceptional students often receive special education services but do not receive adequate gifted services. Therefore, a dual-differentiated curriculum has been suggested as an appropriate education for twice-exceptional students. “A dual differentiated curriculum is responsive to the academic, behavioral and/or social-emotional needs of each learner” (Campanelli & Ericson, 2007, p. 88). “According to Baum, Cooper, and Neu (2001), dual differentiation creates a balance between nurturing a child’s strengths and compensating for learning deficits. They describe a dual differentiated curriculum as being centered on authentic learning experiences and authentic assessment, where students set goals, work on relevant issues and share their research with real audiences” (as cited in Campanelli & Ericson, 2007, p. 88-89).

Instructional strategies for students with ASD should be based on student learning styles and preferences, and should take into consideration and capitalize upon the individual aspects of those learning styles and preferences.

**ISSUES OF ASSESSMENT**

The purpose of assessment is to determine eligibility for special education under the Individuals with Disabilities Education Improvement Act (IDEIA) and to develop instruction appropriate for the needs of each student. Federal and state guidelines require assessment in the following domains:

• Information Provided by Parent

• General Intelligence

• Academic Skills

• Classroom-Based Evaluations and Progress in the General Curriculum

• Data from Interventions

• Communicative Status

• Vision

• Hearing

• Social Emotional Status

• Physical Examination/General Health

• Vocational/Transition (age 14 years of age and older)

• Background History

* Adapted Behavior
* Fine Motor

• Gross Motor

• Other Areas of Consideration, including Behavior Assessment, Assistive Technology Needs,

Structured Observations

In addition, assessments of students with ASD must address areas of strengths, interests, and sensory motor abilities in order to get valid information on which to base instructional strategies. Emphasis on these additional areas will facilitate the assessment process itself and provide critical information for developing the student’s educational program. Assessments, whether ongoing or part of a multifactored evaluation (MFE), must take into consideration the unique learning style and preference of the person with ASD (see section on Learning Styles and Preferences of Students with ASD). Results of assessments/ evaluations in the above areas may be obtained from standardized, norm-referenced tests, criterion-referenced assessments, curriculum-based assessments, and structured interviews. Norm-referenced tests may have limited usefulness in designing interventions to address individual academic achievement and functional performance, however. Regardless of the tools used, person(s) conducting the assessments/ evaluations must have a firm understanding of ASD in order for the results to be valid.

Elements that will help to optimize the results of the assessment/evaluation process for students with ASD include familiarity with the student, shorter test periods over multiple sessions, advance notice to student prior to testing (e.g., may provide the student with a Social StoryTM to prepare the student for testing), and sensory motor preparation for optimal level of alertness.

(For more information, reference the IDEA Partnerships Council for Exceptional Children (CEC). (2000). Making Assessment Accommodations: A Toolkit for Educators (Document #P5376).

Also reference the sections in this document on Communication, Sensory Motor Processing, Functional Analysis of Behavior and Behavior Interventions, and Community Transition.)

**ASPECTS OF A LEARNING ENVIRONMENT**

Any instruction must be unique and specific to the needs of the student. Also, instruction must include a carefully planned environment and setting that is predictable, structured, and appropriate for the sensory motor needs of the student. Structured and unstructured environments, including the general education classroom, special education classroom, specials (art, music, physical education) classrooms, cafeteria, playground, community, and home, must be engineered to support the degree and type of structure by implementing environmental accommodations and modifications that the student requires. (See sections on Communication, Sensory Motor Processing, Predictability & Structure, and Generalization of Skills.)

Learning and behavior may be enhanced by modifications in the physical space that include controlling visual or sound distractions, temperature adjustments, preferential seating, and visual organization of material, and an auditory amplifier. (See Functional Behavior Assessment and Behavioral Intervention Plans.) Evaluate the classroom structure against the student’s unique and specific needs (flexible structure, firm and consistent expectations and limits, etc.). To learn more about accommodations, check School Accommodations and Modifications: Oct 31, 2001 available from www.Fape.org/pubs/FAPE-27.pdf .

**FOCUS OF INTERVENTION – ALL AGES**

Federal and state laws require that all students have access to, and make progress in, the general curriculum. However, the instruction must be meaningful, purposeful, and age appropriate for the student. The student with ASD will have specific goals and objectives that need to be addressed in order to participate and progress in the general education curriculum.

The following areas have been found to increase the student’s ability to benefit from the educational experience and become more competent and independent adults.

**ATTENTION**

*Purpose – Increase awareness of others, develop appropriate learning processes, establish attention to critical task stimuli, and reduce over-selective attention*

Target Areas:

• Acknowledgment of external world

• Sustained attention (attending on a regular basis)

• Saliency (looking at what is important)

• Joint attention (attending with people)

• Attention shifting (flexibility in attending) event-to-event, object to object, object to person, and person to object

**IMITATION**

*Purpose – Prepare for learning complex skills, enable observational learning from peers, and build reciprocal interaction*

Target Areas:

• Prerequisite to imitative learning is that it must be purposeful and independent

• Attention to model: Imitation of movements, vocalizations, verbalizations, and gestures

**COMMUNICATION**

*Purpose – Establish verbal or augmented communication skills; enhance social interaction as an initiator and responder; enhance comprehension of events and persons in the environment; provide appropriate alternatives to challenging behaviors with one to two backup systems*

Target Areas:

• Use and comprehend nonverbal communication (gestures, gaze and facial postures)

• Use and comprehend primary vocabulary and simple sentence structures

• Use and comprehend grammatical-parts of speech

• Use and comprehend combined/multiple communicative means

• Use communicative means for a variety of reasons (request, protest, comment, repair, etc.)

• Use echolalia functionally

• Increase use of spontaneous language

• Continued vocabulary building, comprehension and use

**SOCIALIZATION**

*Purpose – Development of social competence; develop or enhance capacity for meaningful social contact with others*

Target Areas:

• Intentional and systematic introduction to social situations with the ability to initiate and respond

• Turn-taking – includes verbal, nonverbal, and activity related action.

• Adult-child, child-child, and adult-adult interactions

• Sharing

• Ability to give help and accept help

• Choice-making

• Understanding other person’s emotions and perspectives (“Theory of Mind”)

**COGNITION**

*Purpose – Enhance conceptual, problem-solving, and academic performance and executive function (flexible, strategic plan of action to solve a problem or attain a future goal)*

Target Areas:

• Utilization of multiple modes of learning (e.g., sorting, matching, classifying, problem-solving, categorizing, comparisons, ordinals, sequencing, temporal understanding, spatial understanding)

• Understanding cause/effect

• Abstract thinking

• Humor

• Applying and generalizing skills and information

**PURPOSEFUL PLAY/RECREATION/LEISURE**

*Purpose – Enhance cognitive, social and motor skills; enhance relationships between self, others, and environment, and improve appropriate use of unstructured time*

Target Areas:

• Intentional and systematic introduction of a variety of play and leisure skills

• Interaction/cooperation with peers

• Leisure including toys, games, sports, hobbies, creative arts (drama, music, writing, arts and crafts)

• Developing life long leisure/recreation skills and practices

**ESSENTIAL LIFE SKILLS**

*Purpose – Increase personal independence and create opportunities for greater community participation in all areas of life including independent living, employment, leisure /recreation, and education*

Target Areas:

• Transitioning within and between daily activities

• Functional or daily living skills such as toileting, dressing, food preparation, eating, transportation/mobility, shopping, cleaning

• Personal hygiene and health

• Safety in community

• Managing environmental stressors

• Effective communication system for basic needs

• Self-determination/ self-advocacy/ self-respect

• Respecting others’ rights and property

• Goal-oriented: Productivity and completion of task or activity

• Flexibility: Ability to accept change within schedule or task

• Generalization of skills and knowledge to other environments, people, etc.

**ADDITIONAL FOCUS AREAS - AGES 6 THROUGH 21**

In addition to the above areas, the following areas should be included in programs for students, ages 6 though 26.

**TRANSITION (See From High School to Adulthood section)**

*Purpose – Facilitate integration of the student into the community in terms of employment/career, post secondary education/ training, independent living (including leisure and recreation)*

Target Areas:

• Exploration of areas of interests, preferences, and strengths while identifying areas of need

• Identification of specific post-school goals in the areas of employment/career, postsecondary education training, and independent living based on interests and strengths

• Development of skills and knowledge for individual post-school goals

• Generalization of learned skills and knowledge to the targeted adult environments

**SEXUALITY**

*Purpose – Assist the individual to understand and express sexuality in an appropriate and safe manner (avoid being victimized)*

Target Areas:

• Acquire skills such as personal space, turn taking, reciprocity, and conversational skills that assist in the development of friendship

• Promote skills that develop and maintain different types of relationships

• Develop personal health and hygiene

• Develop understanding of concepts of “public” and “private”

• Reinforce information/skills that assist in protecting from victimization (i.e., sexual abuse)

• Understand physical changes in the body (puberty) and how to manage these changes

• Develop/identify appropriate outlets to express sexuality

• Awareness of personal safety issues related to sexuality (e.g., sexually transmitted diseases/infections and unwanted sexual advances)

• Considerations related to the decision to become sexually active

NOTE: The topic of “challenging behavior” has not been included as a Focus Area. Challenging behavior occurs due to skill deficits or an ineffective support system. Addressing challenging or interfering behaviors requires the development of functional skills as replacements. Therefore, issues related to behavior have been embedded into each focus area through targeted skill development. When behavior is a concern, the first step is to analyze the context in which the behavior occurs through the Functional Behavioral Assessment Process (see page 45 and Appendix III).

References:

Campanelli, J., & Ericson, C. (2007). *Twice exceptional guide: Preparing Ohio schools to close the achievement gap for gifted students with disabilities*. Retrieved from http://www.ode.state.oh.us

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