

INTERVENTION CATEGORIES: Definitions

Antecedent-based interventions: Includes stimulus control in which environmental modifications are used to change the conditions in the setting that prompt a learner to engage in an interfering behavior. The goal is to identify factors that are reinforcing the interfering behavior and then modify the environment or activity so that the factor no longer elicits the interfering behavior.

Cognitive behavioral intervention: Based on the belief that behavior is mediated by cognitive processes. Interventions will emphasize teaching individuals to monitor and manage their own thoughts, feelings and behaviors.

Computer-aided instruction: Includes the use of computers to teach academic skills and to promote communication and language development and skills. It includes modeling appropriate skills and behaviors and providing competent tutors.

Developmental relationship-based treatment: Involves a combination of procedures that are based on developmental theory and emphasize the importance of building social relationships.

Differential reinforcement: Involves using praise and/or other rewards for desired behaviors and appropriate communication, while ignoring inappropriate behaviors. Reinforcement can be provided: a) when the learner is not engaging in interfering behavior, b) when the learner is engaging in a specific desired behavior other than the inappropriate behavior, or c) when the learner is engaging in a behavior that is physically impossible to do while exhibiting the inappropriate behavior.

Discrete trial teaching (DTT): A one-to-one instructional approach used to teach appropriate behavior and communication skills in a planned, controlled, and systematic manner. DTT is appropriate for skills that can be taught in small repeated steps. Each trial or teaching opportunity has a definite beginning and end. The use of antecedents and consequences is carefully planned and implemented. Positive praise and/or tangible rewards are used to reinforce desired skills or behaviors.

Exercise: Involves an increase in physical exertion as a means of reducing problem behaviors or increasing appropriate behavior.

Extinction: Used to reduce or eliminate unwanted behavior that involves withdrawing or terminating the positive reinforcer that maintains an interfering behavior. This withdrawal results in the stopping or extinction of behavior. The interfering behavior is likely to increase in frequency and intensity (extinction burst) before it is extinguished as learners try to elicit the reinforcers previously provided. Often used with differential reinforcement.

Functional behavior assessment (FBA): Systematic way of determining the underlying communicative function or purpose of a behavior, so that an effective intervention plan can be developed. FBA consists of describing the interfering or problem behavior, identifying antecedent or consequent events that control the behavior, developing a hypothesis of the function of the behavior, and testing the hypothesis. Data collection is an important part of the FBA process.

Functional communication training (FCT): Systematic practice to replace inappropriate behavior or subtle communicative acts with more appropriate and effective communicative behaviors or skills. First the interfering behavior is analyzed to determine its communicative function through functional behavioral assessment, and then a replacement behavior is taught to take its place.

Imitation-based interaction: Interventions that rely on adults imitating the actions of a child.

Massage/touch therapy: Involves the provision of deep tissue stimulation.

Modeling: Interventions that rely on an adult or peer providing a demonstration of the target behavior that should result in an imitation of the target behavior by the learner. Often combined with other strategies such as prompting and reinforcement.

Music therapy: Interventions that seek to teach skills or behaviors through music.

Naturalistic intervention: Collection of practices including environmental arrangement, interaction techniques, and behavioral strategies that are used to promote appropriate communication and social skills. These practices encourage specific target behaviors based on learner's interests and build more elaborate learner behaviors that are naturally reinforcing and appropriate to the interaction.

Parent-implemented intervention: With parent-implemented intervention, parents are taught to provide individualized intervention to their child to improve/increase a wide variety of skills and/or to reduce interfering behaviors. Parents learn to implement practices in their home and/or community through a structured parent training program.

Peer-mediated instruction and intervention: Involves teaching typically developing peers ways to interact with and help children and youth with ASD acquire new behavior, communication, and social skills by increasing social opportunities within natural environments. PMII is also a useful strategy for promoting positive transitions across settings. Peers are carefully and systematically taught strategies for engaging children and youth with ASD in positive and extended social interactions in both teacher-directed and learner-initiated activities.

Picture Exchange Communication System (PECS): Developed at the Delaware Autistic Program (DAP) to teach young children to communicate in a social context using pictures. PECS has also been used to decrease inappropriate behaviors. Using PECS, learners are taught to give a picture of a desired item to a communicative partner in exchange for the item. There are six phases of PECS instruction, with each phase building on the previous phase.

Pivotal response training (PRT): Method of systematically applying the scientific principles of applied behavior analysis that builds on learner initiative and interests and is particularly effective for developing communication, language, play, and social behaviors. This practice promotes more efficient and effective intervention by enhancing four pivotal learning variables that provide the foundational skills upon which other skills are based: motivation, responding to multiple cues, self-management, and self-initiations.

Prompting: Procedures include any help given to learners to assist them in using a specific skill. Prompts are generally given by an adult or peer before or as a learner attempts to use a skill. Prompting procedures that have been shown to be effective with learners with ASD include least-to-most-prompts, simultaneous prompting, and graduated guidance and can include verbal, gestural, and model prompts.

Reinforcement: If a consequence increases the probability that a behavior will occur again, it can be said to be a reinforcer. Positive reinforcement involves offering incentives to reward behavior. An example of positive reinforcement is a token economy. Negative reinforcement involves removing an aversive stimulus to reward behavior so that learners will use the targeted skill or will not engage in interfering behaviors.

Response interruption/redirection: Used to decrease interfering behaviors, predominantly those that are repetitive, stereotypical, and/or self-injurious. RIR is particularly useful with persistent interfering behaviors that occur in the absence of other people, in a number of different settings, and during a variety of tasks. These behaviors often are not maintained by

attention or escape. Instead, they are more likely maintained by sensory reinforcement and are often resistant to intervention attempts.

Scripting: Involve developing a verbal and/or written script about a specific skill or situation which serves as a model for the child with ASD. Scripts are usually practiced repeatedly before the skill is used in the actual situation.

Self-management: Interventions that help learners learn to independently regulate their own behaviors and act appropriately in a variety of home, school, and community-based situations. With these interventions, learners with ASD are taught to discriminate between appropriate and inappropriate behaviors, accurately monitor and record their own behaviors, and reward themselves for behaving appropriately.

Sign language instruction: Involve the direct teaching of sign language as a means of communicating with other individuals in the environment.

Social narratives: Interventions that describe social situations in some detail by highlighting relevant cues and offering examples of appropriate responding. They help learners adjust to changes in routine and adapt their behaviors based on the social and physical cues of a situation, or are used to teach specific social skills, communication skills, or behaviors. Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aides.

Social skills groups: Social skills groups are used to teach individuals with autism spectrum disorders (ASD) ways to appropriately interact with typically developing peers. Social skills groups typically involve small groups of two to eight individuals with disabilities and a teacher or adult facilitator. Most social skill group meetings include instruction, role-playing or practice, and feedback to help learners with ASD acquire and practice communication, play, or social skills to promote positive interactions with peers.

Speech generating devices/VOCA

Structured work systems: An element of structured teaching that emphasizes visual supports and are used to increase and maximize independent functioning and reduce the frequent need for teacher correction and reprimand. An individual work system is defined as a visually organized space where learners independently practice skills that have been previously mastered under the direct supervision of an adult and are frequently used for academic tasks, as well as vocational tasks.

Task analysis: The process of breaking a skill into smaller, more manageable steps in order to teach the skill. Other practices, such as reinforcement, video modeling, or time delay, can be used to facilitate acquisition of the smaller steps. As smaller steps are mastered, learners become more independent in performing more complex, including physical or routine (e.g., self-care, work tasks) tasks, as well as academic, behavior, communication, play, social and transition related skills.

Time delay: Time delay focuses on fading the use of prompts during instructional activities and has been demonstrated to be effective with skills in the academic, communication, play and social domains. A brief delay is provided between the initial instruction and any additional instructions or prompts.

Video modeling: Uses video recording and display equipment to provide a visual model of the targeted behavior or skill (typically in the behavior, communication, play or social domains). Types of video modeling include basic video modeling, video self-modeling, point-of-view video modeling, and video prompting.

Visual supports: Involves any tool presented visually that supports an individual as he or she moves through the day and are applicable to many skill domains. Visual supports might include, but are not limited to, pictures, written words, objects within the environment, arrangement of the environment or visual boundaries, schedules, maps, labels, organization systems, timelines, and scripts. They are used across settings to support individuals with ASD.

OUTCOME CATEGORIES: Definitions

Social: Outcomes related to skills needed to interact with others. Examples may include (but are not limited to): initiating, eye contact, facial expression recognition, emotion recognition, empathy, body language, responding to others and taking turns in conversation. Outcome data may be recorded with observational measures or standardized assessments based on report of others.

Communication: Outcomes related to the ability to express wants, needs, choices, feelings or ideas. Examples may include (but are not limited to): language, speech, augmentative communication, sign language, manding, tacting, imitating, gestures or symbol use. Outcome data may be recorded with observational measures or standardized assessments.

Joint attention: Outcomes related to behaviors needed for sharing interests and/or experiences. Examples may include (but are not limited to): initiating and responding to eye gaze, coordinated joint looks, showing, or pointing. Outcome data are likely recorded with observational measures.

Challenging/interfering behavior: Outcomes related to decreasing or eliminating behaviors that interfere with the individual's ability to learn, especially those that cause harm to self or others. Examples may include (but are not limited to): behaviors that are destructive, self-injurious, aggressive, repetitive or maladaptive. Outcome data are likely recorded with observational measures.

School readiness behavior: Outcomes related to performance during a task that is NOT directly related to task content. Examples of school readiness may include (but are not limited to): on-task, engagement, waiting, remaining in seat or activity area, orienting to materials, self-regulation and self monitoring, and responding to instruction (e.g. latency). Outcome data are likely recorded with observational measures.

Play: Outcomes related to the use of toys or leisure materials. Examples may include (but are not limited to): symbolic/pretend/functional play, use of toys or leisure materials, development of play schemes, cooperative play with peers/adults, generalization of play behaviors, recess or playground skills, and participation in games or play activities. Outcome data are likely recorded with observational measures or standardized measures (e.g. Structured Play Assessment).

Cognitive: Outcomes related to performance on measures of intelligence, executive function, problem solving, information processing, reasoning, theory of mind, memory, creativity, or attention. Examples may include (but are not limited to): scores on IQ tests, achievement tests, early learning scales, Tower of London test, Sally Anne test, and Test of Problem

Solving. Outcome data are likely recorded with standardized measures administered to the individual with ASD.

Pre-academic/academic: Outcomes broadly related to performance on tasks typically taught and used in school settings. Examples may include (but are not limited to): matching, sorting, classification, identification of colors/shapes/etc., sequencing, reading, spelling, math, science, social studies, and writing. Outcomes may address increased accuracy and/or performance on formal or observational measures.

Motor

Adaptive/ self-help: Outcomes related to independent living skills and personal care skills. Examples may include (but are not limited to): using telephone, shopping, transportation, map skills, budgeting, cleaning, cooking, opening containers, eating, dressing, grooming, toileting, safety, and health. Outcomes may also address independent performance of these skills.

Vocational: Outcomes related to employment or employment preparation. Outcomes may relate to the hard skills required for a specific job (e.g. changing oil, cake decorating, assembly, filing); the soft skills required at an employment site (e.g. relating to customers, problem solving, time management); and/or the technical skills required (e.g. use of computers). Outcomes related to self-advocacy, self-determination, and transition planning are also included in this category.

Mental health: Outcomes related to emotional well-being. Examples may include (but are not limited to): self-esteem or self-efficacy; symptoms of anxiety, stress, or depression; symptoms of co-morbid disorders such as obsessive compulsive or bipolar disorder; phobias or other psychiatric conditions. Outcome data are likely recorded with standardized measures administered to the individual with ASD or to others (e.g. family members, teachers) reporting on the individual.