

Autism Treatments

Current Interventions in Autism – A Brief Analysis

	Lovaas	TEACCH	PECS
Background	Also known as Discrete Trial (DT), Intensive Behavior Intervention (IBI), Applied Behavior Analysis (ABA); DT was earliest form of behavior modification; initial research reported in 1987; initial intent to achieve inclusive kindergarten readiness; has “morphed” into IBI and ABA.	Stands for Treatment and Education of Autistic and related Communication-handicapped Children; over 32 years empirical data on efficacy of TEACCH approach exists; includes parents as co-therapists; recognizes need for supports from early childhood through adulthood; main focus is on autism rather than behavior.	Stands for Picture Exchange Communication System; derived from need to differentiate between <i>talking</i> and <i>communicating</i> ; combines in-depth knowledge of speech therapy with understanding of communication where student does not typically attach meaning to words and lack of understanding of communication exists; high compatibility with TEACCH.
Goals	Teach child <i>how to learn</i> by focusing on developing skills in attending, imitation, receptive/expressive language, pre-academics, and self-help.	Provide strategies that support person throughout lifespan; facilitate autonomy at all levels of functioning; can be accommodated to individual needs.	Help child <i>spontaneously</i> initiate communicative interaction; help child understand the <i>function</i> of communication; develop communicative competency.
How Implemented	Uses ABC model; every trial or task given to the child consists of; antecedent – a directive or request for child to perform an action, behavior – a response from the child that may include successful performance, non-compliance, no response, consequence – a reaction from the therapist, including a range of responses from strong positive reinforcement to faint praise to a negative “No!”, pause – to separate trials from one another (intertrial interval).	Clearly organized, structured, modified environments and activities; emphasis on visual learning modalities; uses functional contexts for teaching concepts; curriculum is individualized based on individual assessment; uses structure and predictability to promote spontaneous communication.	Recognizes that young children with autism are not strongly influenced by social rewards; training begins with functional acts that bring child into contact with rewards; begins with physically assisted exchanges and proceeds through a hierarchy of eight phases; requires initial ratio of 2:1.
Reported Outcomes	First replications of initial research reporting gains in IQ, language comprehension and expression, adaptive and social skills.	Gains in function and development; improved adaptation and increase in functional skills; learned skills generalized to other environments; North Carolina reports lowest parental stress rates and rate of requests for out-of-home placement, and highest successful employment rates.	Pyramid Educational Consultants report incoming empirical data supporting; increased communicative competency among users (children understanding the <i>function</i> of communication); increasing reports of emerging spontaneous <i>speech</i> .
Advantages of Approach	Recognizes need for 1:1 instruction; utilizes repetitions of learned responses until firmly imbedded; tends to keep child engaged for increasing periods of time; effective at eliciting verbal production in select children; is a “jump start” for many children, with best outcomes for those in mild-to-moderate range.	Dynamic model that takes advantage of and incorporates research from multiple fields; model does not remain static; anticipates and supports inclusive strategies; compatible with PECS, Floor Time, OT, PT, selected therapies; addresses sub-types of autism, using individualized assessment and approach; identifies emerging skills, with highest probability of success; modifiable to reduce stress on child and/or family.	Helps to get language started; addresses both the communicative and social deficits of autism; well-suited for pre-verbal and non-verbal children AND children with a higher Performance IQ than Verbal IQ; semantics of PECS more like spoken language than signing.
Concerns with Approach	Heavily promoted as THE approach for autism in absence of any comparative research to support claim; no differentiation for subtypes when creating curriculum; emphasizes compliance training, prompt dependence; heavy focus on behavioral approach may ignore underlying neurological aspects of autism, including issues of executive function and attention switching; may overstress child and/or family; costs reported as high as \$50,000 per child per year; prohibits equal access.	Belief that TEACCH “gives in” to autism rather than fighting it; seen by some as an exclusionary approach that segregates children with autism; does not place enough emphasis on communication and social development; independent work centers may isolate when there is a need to be with other children to develop social skills.	May suppress spoken language (evidence is to the contrary).
Errors to Avoid	Creating dependency on 1:1; overstressing child or family; interpreting all behaviors as willful rather than neurological manifestations of syndrome; ignoring sensory issues or processing difficulties; failing to recognize when it is time to move to another approach	Failing to offer sufficient training, consultancy, and follow-up training to teachers for program to be properly implemented; treating TEACCH as a single classroom approach rather than a comprehensive continuum of supports and strategies; expecting minimally trained teacher to inform and train all other personnel in TEACCH approach; failing to work collaboratively with parents.	Failing to strictly adhere to the teaching principles in Phase 1; tendency to rush through Phase 1 or to use only one trainer; providing inadequate support or follow-up for teacher after attending two-day training; training only one person in approach rather than all classroom personnel; inconsistently implementing in classroom

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	Greenspan	Inclusion	Social Stories
Background	Also known as “Floor Time,” DIR (Developmental Individual-Difference, Relationship-Based) Model; targets emotional development following developmental model; depends on informed and acute observations of child to determine current level of functioning; has child-centered focus; builds from the child; “Floor Time” is only one piece of a three-part model that also includes spontaneity along with semi-structured play, and motor and sensory play.	Initially intended for children with mental retardation and disabilities other than autism; sociological, educational, and political mandates in contrast to psychology as root source for other approaches; inclusion defined in three federal laws – PL 94-142, REL, and IDEA.	Also known as Social Scripts; developed by Carol Gray in 1991 initially to help student with autism understand rules of a game; was further developed to address understanding subtle social rules of “neurotypical” culture; addresses “Theory of Mind” deficits (the ability to take the perspective of another person).
Goals	Targets personal interactions to facilitate mastery of developmental skills; helps professionals see child as functionally integrated and connected; does not treat in separate pieces for speech development, motor development, etc.	Educate children with disabilities with NT children to the maximum extent possible; educate children with disabilities in the chronological setting they would be in if they had no disability and they lived at home; does not apply to separate educational channels except under specific circumstances.	Clarify social expectations for students with ASD; address issues from the student’s perspective; redefine social misinterpretations; provide a guide for conduct or self-management in specific social situations.
How Implemented	Teaches in interactive contexts; addresses developmental delays in <i>sensory modulation, motor planning and sequencing, and perceptual processing</i> ; usually done in 20-minute segments followed by 20-minute breaks, each segment addressing one each of above-identified delays.	Children with autism typically placed in inclusive settings with 1:1 aide; curriculum modified to accommodate to specific learning strengths and deficits; requires team approach to planning; approach may be selective inclusion (by subject matter or class), partial inclusion (1/2 day included, ½ day separate instruction), or full, radical inclusion with no exceptions.	Stories or scripts are specific to the person, addressing situations which are problematic for that individual; Social Stories typically comprised of three types of sentences; perspective, descriptive, and directive; types of sentences follow a ratio for frequency of inclusion in the Social Story; Social Story can be read TO or BY the person with autism; introduced far enough in advance of situation to allow multiple readings, but especially <i>just before</i> the situation is to occur.
Reported Outcomes	Teaches parents how to engage child in happier, more relaxed ways; hypothetically lays stronger framework for future neurological/cognitive development.	In <i>certain circumstances</i> , some children with autism can survive and even become more social in classrooms with NT peers; benefits children who cognitively match classmates.	Stabilization of behavior specific to the situation being addressed; reduction in frustration and anxiety of students; improved behavior when approach is <i>consistently implemented</i> .
Advantages of Approach	Addresses emotional development in contrast to other approaches, which tend to focus on cognitive development; avoids drilling in deficit areas, which feeds child’s frustrations and highlights inadequacies; is non-threatening approach; helps to turn child’s actions into interactions.	More opportunities for role modeling and social interaction; greater exposure to verbal communication; opportunities for peers to gain greater understanding of and tolerance for differences; greater opportunities for friendships with typically developing peers.	Developed specifically to address autistic social deficits; tailored to individual and specific needs; is time and cost efficient/flexible.
Concerns with Approach	Does not focus on specific areas for competency; no research to support efficacy for children with autism; approach based on hypotheses, not research; is a more passive approach.	<i>Automatic</i> inclusion violates spirit and letter of IDEA; opportunities for successful inclusion begin to plateau by end of third grade as work becomes more abstract and faster paced; increasing use of language-based instruction puts students with autism at great disadvantage; sensory and processing difficulties tend to be insufficiently accommodated; regular education setting not necessarily best learning environment for students with autism; teachers and students in inclusion class rooms are typically ill prepared to receive student.	Supportive data is anecdotal rather than empirical; benefit depends on skill of writer and writer’s understanding of autism, as well as writer’s ability to take an autistic perspective.
Errors to Avoid	Attempting to implement approach without training or professional oversight; taking the lead, trying to get the child to do what YOU think he should do; allowing inadequate time; attempting to implement in midst of ongoing activities for other children.	Providing insufficient training, preparation, information, and support to personnel; placing student in setting where level of auditory and visual stimulation is typically too intense; assigning student work in which cognitive demands exceed student’s ability to comprehend; depending on support of 1:1 aide, maintaining placement behaviors; focusing on academics to detriment or exclusion of functional competencies; not offering multiple opportunities to apply functional skills.	Including too many directive sentences in proportion to perspective and descriptive sentences; stating directive sentences I inflexible terms (e.g., “I will do ___” rather than “I will try to ___”); writing above the person’s cognitive developmental age; using complex language; not being specific enough in describing either the situation or the desired behavioral response.