

## Evidence Based Behavioral Interventions for Children with Autism Spectrum Disorders

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### Applied Behavior Analysis (ABA)

- A scientific approach for improving socially important behaviors.
- Baer, Wolf, & Risley (1968) 

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### Baer, Wolf, & Risley (1968)

- “Behavioral applications are hardly a new phenomenon. Analytic behavioral applications, it seems, are” (pp. 91).
- Analytic behavioral application is the process of applying sometimes tentative principles of behavior to the improvement of [socially important and] specific behaviors, and simultaneously evaluating whether or not any changes noted are indeed attributable to the process of application—and if so, to what parts of that process” (pp. 91).

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 **Baer, Wolf, & Risley (1968)  
(cont.)**

- “Applied research is constrained to look at variables which can be effective in improving the behavior under study” (pp. 91).

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 **Major Concepts & Contributions  
of ABA**

- Three-term contingency (stimulus-response-reinforcing consequence)
  - Antecedent-behavior-consequence
- Science
  - Empirical investigation
  - Direct measurement of behavior
  - Single-subject research designs (e.g. reversal, multiple baseline)
- Functional analysis
- Setting event and establishing operation
- Stimulus control
- Generalization
- Maintenance
- Shaping
- Fading
- Chaining
- Prompting
- Reinforcement contingencies

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 **ABA and Discrete Trial  
Training**

- Discrete Trial Training (DTT) (Lovaas, 1987)
  - Based on procedures of Applied Behavior Analysis (ABA)
- Importance of DTT for children with autism
  - No longer a diagnosis for institutionalization
  - Children with autism could be educated
  - Data-based and scientifically validated
- Most widely used intervention for children with autism today

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**ABA and Discrete Trial Training: Misunderstandings**

- Demand for “ABA” treatment
  - Individuals with Disabilities Education Act (IDEA) and Free Appropriate Public Education (FAPE)
  - 40 Hours/week of intervention
  - ABA and DTT used interchangeably

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**Demand for “ABA”:  
Good, Bad, & Ugly**

- Demand for “ABA”: Good
  - Evidence based interventions have generally been based on procedures of Applied Behavior Analysis (ABA)
- Demand for “ABA”: Bad
  - Intervention is unspecified
- Demand for “ABA”: Ugly
  - ABA backlash
  - Well-marketed interventions

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**ABA Interventions for Children with Autism**

*Journal of Autism and Developmental Disorders, Vol. 31, No. 3, 2001*

**Comparisons of Discrete-Trial and Normalized Behavioral Language Intervention for Young Children with Autism**

Dennis J. Delprato<sup>1</sup>

This critical review examined a series of 10 controlled studies in which traditional operant behavioral procedures were compared with more recently developed normalized interventions for teaching language to young children with autism. Many characteristics of the older treatments include highly structured direct teaching sessions of discrete trials, teacher initiation, artificial reinforcers, and response shaping. Normalized interventions consist of loosely structured sessions of indirect teaching with everyday situations, child initiation, natural reinforcers, and liberal criteria for presentation of reinforcers. The main conclusion was that in all eight studies with language criterion measures, normalized language training was more effective than discrete-trial training. Furthermore, in both studies that assessed parental affect, normalized treatment yielded more positive affect than discrete-trial training.

KEY WORDS: autism, children, behavioral intervention, discrete-trial treatment, normalized treatment, language intervention.

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**Evaluating the Evidence**

- Empirically Supported Treatments (ESTs) and Evidence-Based Practices (EBPs) (American Institute of Education Sciences [IES])
- Scientifically Based, Validated Practices
- Evidence-Based Practices and Students With Autism Spectrum Disorders

Richard L. Simpson  
Journal of Autism and Developmental Disorders (Simpson, 2005)

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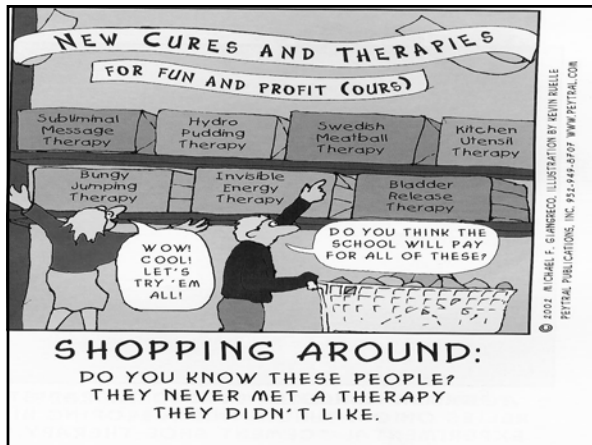
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**Critical Elements of Comprehensive Intervention Approaches**

**No evidence**  
Journal of Consulting and Clinical Psychology, 2005, Vol. 73, No. 3, 325-338

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0893-3200/05/\$12.00 DOI: 10.1037/0893-3200.73.3.325

**Individual Behavioral Profiles and Predictors of Treatment Effectiveness for Children With Autism**

Michelle R. Sherer and Laura Schreibman  
University of California, San Diego

Differential responsiveness to intervention programs suggests the inadequacy of a single treatment approach for all children with autism. One method for reducing outcome variability is to identify participant characteristics associated with different outcomes for a specific intervention. In this investigation, an analysis of archival data yielded 2 distinct behavioral profiles for responders and nonresponders to a widely used behavioral intervention, pivotal response training (PRT). In a prospective study, these profiles were used to select 6 children (3 predicted responders and 3 predicted nonresponders) who received PRT. Children with pretreatment responder profiles evidenced positive changes on a range of outcome variables. Children with pretreatment nonresponder profiles did not exhibit improvements. These results offer promise for the development of individualized treatment protocols for children with autism.

**Keywords:** autism, behavioral treatment, behavioral profiles, individualized treatment, pivotal response training

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 **Critical Elements of Comprehensive Intervention Approaches (cont.)**

- Cautions
  - Critical elements vs. eclectic programs 
  - Clear understanding of comprehensive approaches and interventions
    - Eg. Picture exchange vs. picture schedule
- Fidelity of implementation 
  - Eg. Picture Exchange Communication System (PECS)

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 **Characteristics of Autism**

- Characteristics
  - Social difficulties
  - Language difficulties
  - Restricted interests
- ADOS (typically developing child) 
- ADOS (child with autism) 

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 **Changes In Core Symptoms of Autism**

- Video example
  - Pre-intervention
  - Intervention
    - PRT




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