

## **Selected Research Supporting Applied Behavior Analysis/Verbal Behavior Interventions**

Applied Behavior Analysis/Verbal Behavior (ABA/VB) utilizes a variety of ABA intervention strategies, including discrete trial training, natural environment teaching and verbal operant training, each of which has been validated in published research. Citations to this research are listed below. ABA/VB implements these strategies in a logically cohesive way based on the behavioral analysis set out by B.F. Skinner in his book Verbal Behavior and the practical application of Skinner's analysis published by Mark Sundberg and James Partington in Teaching Language to Children With Autism or Other Developmental Disabilities. As a cohesive intervention, it is preferable to eclectic strategies.

### *Research Comparing Eclectic Interventions Unfavorably With Intensive Behavioral Interventions*

- Howard, Jane S., Coleen R. Sparkman, Howard G. Cohen, Gina Green and Harold Stanislaw (2005). A comparison of intensive behavior analytic and eclectic treatments for young children with autism. *Research in Developmental Disabilities*, 26, 359-383.
- Eikeseth, S., Smith, T., Jahr, E., & Eldevik, S. (2002). Intensive behavioral treatment at school for 4-7-year-old children with autism: A 1-year comparison controlled study. *Behavior Modification*, 49-68.
- Eikeseth, S., Smith, T., Jahr, E., & Eldevik, S. (2007) Outcome for Children with Autism Who Began Intensive Behavioral Treatment Between Ages 4 and 7. *Behavior Modification*, 31(3), 264-278.
- Zachor, Ditzia A., Esther Ben-Itzhak, Ana-Lia Rabinovich and Eli Lahat (2007). Change in autism core symptoms with intervention. *Research in Autism Spectrum Disorders*, in press.

### *Research on Discrete Trial Training (DTT)*

- Lovaas, O.I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 3-9.
- McEachin, J. J., Smith, T., & Lovaas, O. I. (1993). Long-term outcome for children with autism who received early intensive behavioral treatment. *American Journal on Mental Retardation*, 97, 359-372.
- Sallows, Glen O. and Tamlynn D. Graupner (2005). Intensive behavioral treatment for children with autism: four-year outcome and predictors. *American Journal on Mental Retardation*, 110, 417-438.



Cohen, Howard, Mila Amerine-Dickens and Tristram Smith (2006). Early Intensive Behavioral Treatment: Replication of the UCLA Model in a Community Setting. *Developmental and Behavioral Pediatrics*, 27(2), S145-S155.

For a review and discussion of other DTT research, see:

Green, G. (1996). Early behavioral intervention for autism: What does research tell us? In C. Maurice, G. Green, & S. C. Luce (Eds.), *Behavioral intervention for young children with autism* (pp. 29–44). Austin, TX: Pro-Ed.

*Research on Natural Environment Teaching  
(NET, also called milieu training and/or incidental teaching)*

Hart, B. M., & Risley, T. R. (1975). Incidental teaching of language in the preschool. *Journal of Applied Behavior Analysis*, 8, 411-420.

Hart, B., & Rogers-Warren, A. (1978). A milieu approach to teaching language. In R. L. Schiefelbusch (Ed.), *Language intervention strategies* (pp. 193-235). Baltimore: University Park Press.

Keogel, R.L., O'Dell, M.C. & Keogel, L.K. (1987). A natural language teaching approach for nonverbal autistic children. *Journal of Autism and Developmental Disorders*, 17, 187-200.

McGee, G. G., Krantz, P. J., & McClannahan, L. E. (1985). The facilitative effects of incidental teaching on preposition use by autistic children. *Journal of Applied Behavior Analysis*, 18, 17-31.

For a review and discussion of other NET research and its support for ABA/VB, see:

Cautilli, Joseph. (2005) Validation of the Verbal Behavior Package: Old Wine, New Bottle—A Reply to Carr & Firth. *The Journal of Speech-Language Pathology and Applied Behavior Analysis*, 1, 81-90.

*Research on Verbal Operant Training*

Braam, S. J., & Poling, A. (1983). Development of intraverbal behavior in mentally retarded individuals through transfer of stimulus control procedures: Classification of verbal responses. *Applied Research in Mental Retardation*, 4, 279-302.

Miguel, C. F., Carr, J. E., & Michael, J. (2002). The effects of a stimulus-stimulus pairing procedure on the vocal behavior of children diagnosed with autism. *The Analysis of Verbal Behavior*, 18, 3-13.



Sundberg, M. L., Loeb, M., Hale, L., & Eigenheer, P. (2002). Contriving establishing operations to teach mands for information. *The Analysis of Verbal Behavior*, 18, 15-29.

Williams, G., & Greer, R. D. (1993). A comparison of verbal-behavior and linguistic-communication curricula for training developmentally delayed adolescents to acquire and maintain vocal speech. *Behaviorology*, 1, 31-46.

Note: These citations represent a sampling of the published literature on verbal operant studies. Since its inception in 1982, the purpose of the journal *The Analysis of Verbal Behavior* has been to document this line of research.

