

VERBAL BEHAVIOR

CHARACTERISTICS OVERVIEW CHART

Verbal Skills	Grade Levels	Cognitive Level	Areas Addressed
<input checked="" type="checkbox"/> Nonverbal	<input checked="" type="checkbox"/> PK	<input checked="" type="checkbox"/> Classic	<input checked="" type="checkbox"/> (Pre)Academic/Cognitive/Academic
<input checked="" type="checkbox"/> Mixed	<input checked="" type="checkbox"/> Elementary	<input type="checkbox"/> High	<input type="checkbox"/> Adaptive Behavior/Daily Living
<input type="checkbox"/> Verbal	<input type="checkbox"/> Middle/High	Functioning	<input type="checkbox"/> Behavior
			<input checked="" type="checkbox"/> Communication/Speech
			<input type="checkbox"/> Social/Emotional

BRIEF INTRODUCTION

Verbal behavior or applied verbal behavior (AVB) is based on the works of B. F. Skinner (1957). AVB uses specific vocabulary, as illustrated below.

AVB Vocabulary	Brief Definition
Echoic	Vocal imitation
Imitation	Motor imitation
Mand	Request
Tact	Label
Intraverbal	Response to a statement or question
Textual	Reading a word
Spelling repertoire	Writing and spelling a word that is spoken
Receptive	Following an instruction
Receptive function feature class (RFFC)	Identifying an item when provided with a description of its appearance, use or other characteristics

Each of the above behaviors is taught separately and used for assessment. Motivation is key to the AVB approach. The following steps are necessary to identify motivators: (a) observation of or interview with the student, (b) interviews with parents and past teachers, and (c) administration of reinforcement inventories. Motivational items or activities should be those

that can be used more than once and are innately motivating. Language instruction should be enjoyable to the child, and errorless teaching procedures are recommended.

For students with limited verbal skills, it is recommended that sign language be paired with mands. The focus, according to Sundberg and Partington (1998), is not on the sign but on shaping verbalizations. Thus, signing is the “bridge” to arrive at the correct vocalization (Sundberg & Partington, 1998). Applied behavior analysis strategies are used in the instructional process.

Instruction using the verbal behavior approach is highly prescribed. For example, before teaching a tact, the student should be able to imitate some words or signs and be able to perform some independent mands. Intraverbals are introduced at the same time as receptive function feature class (RFFC) and when a student has at least 50 mands and tacts (Sundberg & Partington, 1998). Instruction typically begins with simple fill-in-the-blank responses using familiar songs and rhymes and moves to teaching a student name, address, phone number, and so forth.

BRIEF EXAMPLE

Junah’s teacher had taught him to use 60 mands and tacts reliably over time. He introduced intraverbals using Junah’s favorite cartoon character, Tigger. Concurrently, Junah began to learn receptive function feature class (RFFC) using Tigger. Since Junah was very motivated by Tigger, the lessons moved quickly.

SUMMARY

The verbal behavior approach teaches skills in a highly prescriptive manner that includes applied behavior analysis strategies paired with motivation.

RESEARCH TABLE

Number of Studies	Ages (year)	Sample Size	Area(s) Addressed	Outcome
7	3-14	26	Speech, communication	Mixed

STUDIES CITED IN RESEARCH TABLE

1. Carbone, V.J., Sweeney-Kerwin, E.J., Attanasio, V., Kasper, T. (2010). Increasing the vocal responses of children with autism and developmental disabilities using manual sign mand training and prompt delay. *Journal of Applied Behavior Analysis, 43(4)*, 705-709.
 3 boys (2 with ASD) were taught to emit a vocal request in conjunction with a previously learned manual sign when requesting an item using a prompt-delay + vocal model + shaping procedure to reinforce successive approximations of a vocal request in a multiple-baseline-across-participants design. 1 of the 2 participants with ASD showed an increase in both unprompted and prompted use of the vocal request following the introduction of the prompting and shaping procedures, while the other participant only showed a slight increase in prompted vocal requests.
2. Ingvarsson, E.T. & Hollobaugh, T. (2010). Acquisition of intraverbal behavior: Teaching children with autism to mand for answers to questions. *Journal of Applied Behavior Analysis, 43(1)*, 1-17.
 This article reports on the successful teaching of four children with ASD to request the answer to an unknown question. Echoic prompting and constant prompt delay promoting procedures were used.
3. Murphy, C. & Barnes-Holmes, D. (2010). Establishing five derived mands in three adolescent boys with autism. *Journal of Applied Behavior Analysis, 43(3)*. 537-541.
 This study reports that a match-to-sample teaching procedure using nonsense syllables as mands was effective in establishing complex requests from three 14-yr old boys adolescents with ASD.
4. Goldsmith, T. R., LeBlanc, L. A., & Sautter, R. A. (2007). Teaching intraverbal behavior to children with autism. *Research in Autism Spectrum Disorders, 1*, 1-13.
 In this study, three children with autism (ages 4, 5, and 7) were taught words using errorless learning. The children were successfully taught to name items associated with preselected categories (e.g., "What are some colors?") with limited generalization maintenance.
5. Esch, B. E., Carr, J. E., & Michael, J. (2005). Evaluating stimulus-stimulus pairing and direct reinforcement in the establishment of an echoic repertoire of children diagnosed with autism. *Analysis of Verbal Behavior, 21*, 43-58.

Three experiments were conducted with mixed results. In Experiment 1, directly reinforced echoic responses did not increase in three children with autism. Vocalizations did not increase in a follow-up experiment. Experiment 3 demonstrated that shaping increased vowel frequency for one participant.

6. Finkel, A. S., & Williams, R. L. (2001). A comparison of textual and echoic prompts on the acquisition of intraverbal behavior in a six-year-old boy with autism. *The Analysis of Verbal Behavior, 18*, 61–70.
The authors found that prompts were effective in teaching intraverbals to a 6-year-old boy with autism. The student was able to generate partial and complete sentences as a result of the instruction.
7. Partington, J. W., & Bailey, J. S. (1993). Teaching intraverbal behavior to preschool children. *Analysis of Verbal Behavior, 11*, 9–18.
In this study, four typically developing preschool children were successfully taught intraverbals. Specifically, they learned both item name and class (e.g., “pea,” “vegetable”), but with limited generalization.

REFERENCES

- Carbone, V.J., Sweeney-Kerwin, E.J., Attanasio, V., Kasper, T. (2010). Increasing the vocal responses of children with autism and developmental disabilities using manual sign mand training and prompt delay. *Journal of Applied Behavior Analysis, 43(4)*, 705-709.
- Esch, B. E., Carr, J. E., & Michael, J. (2005). Evaluating stimulus-stimulus pairing and direct reinforcement in the establishment of an echoic repertoire of children diagnosed with autism. *Analysis of Verbal Behavior, 21*, 43-58.
- Finkel, A. S., & Williams, R. L. (2001). A comparison of textual and echoic prompts on the acquisition of intraverbal behavior in a six-year-old boy with autism. *The Analysis of Verbal Behavior, 18*, 61-70.
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- Partington, J. W., & Bailey, J. S. (1993). Teaching intraverbal behavior to preschool children. *Analysis of Verbal Behavior, 11*, 9-18.

Skinner, B. F. (1957). *Verbal behavior*. Acton, MA: Copley.

Sundberg, M. L., & Partington, J. W. (1998). *Teaching language to children with autism or other developmental disabilities*. Pleasant Hill, CA: Behavior Analysts, Inc.

RESOURCES AND MATERIALS

- Verbal Behavior/Applied Verbal Behavior. Association for Science in Autism Treatment (ASAT): <http://www.asatonline.org/intervention/procedures/verbal.htm>
This site provides a brief description, a research summary and recommendations about this intervention.
- Autism Intervention Information. Institute Knosp-ABA: <http://knosp-aba.com/cms/en/home.html>
The goal of this website is to be a resource for parents; it includes links to other helpful sites.
- B. F. Skinner Foundation: <http://www.bfskinner.org/BFSkinner/Home.html>
Though non-functional at the time of this publication, this site offers a downloadable program for classroom use.

GENERAL RESOURCES

- Autism Internet Modules (AIM) www.autisminternetmodules.org. The Autism Internet Modules were developed with one aim in mind: to make comprehensive, up-to-date, and usable information on autism accessible and applicable to educators, other professionals, and families who support individuals with autism spectrum disorders (ASD). Written by experts from across the U.S., all online modules are free, and are designed to promote understanding of, respect for, and equality of persons with ASD.
- The Autism Web Course: http://cdd.unm.edu/swan/autism_course/about/index.htm. This web course was developed out of materials from the Interactive Collaborative Autism Network (ICAN). The Autism Programs at the University of New Mexico has updated and added information to this web course.
 - Characteristics
 - Assessment
 - Academic Interventions
 - Behavioral Interventions
 - Communication Interventions
 - Environmental Interventions
 - Social Interventions
 - Family Support Suggestions
- Indiana Resource Center for Autism (IRCA) <http://www.iidc.indiana.edu/irca/fmain1.html>. The Indiana Resource Center for Autism

staff's efforts are focused on providing communities, organizations, agencies, and families with the knowledge and skills to support children and adults in typical early intervention, school, community, work, and home settings.

- IRCA Articles: <http://www.iidc.indiana.edu/index.php?pageId=273>
- Texas Statewide Leadership for Autism www.txautism.net. The Texas Statewide Leadership for Autism in conjunction with the network of Texas Education Service center with a grant from the Texas Education Agency has developed a series of free online courses in autism. Please check the training page, www.txautism.net/training.html, for update lists of courses, course numbers and registration information. Current courses include the following:
 - Asperger Syndrome 101
 - Augmentative and Alternative Communication and the Autism Spectrum
 - Autism for the General Education Teacher
 - Autism 101: Top Ten Pieces to the Puzzle
 - Classroom Organization: The Power of Structure for Individuals with ASD
 - Communication: The Power of Communication for Individuals with ASD
 - Futures Planning for Students with Autism Spectrum Disorder
 - Navigating the Social Maze: Supports and Interventions for Individuals with ASD
 - Solving the Behavior Puzzle: Making Connections for Individuals with ASD