The Verbal Behavior Approach:
Teaching Children with Autism

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Autism Epidemic

- Rate of autism has skyrocketed from 1 in 10,000 in the 1970's and early 1980's to 1 in 88 today (CDC). A ten fold increase in 40 years.

- Statistics from the Virginia Department of Education (students ages 6-21)
  - 2006---6,488 students with autism
  - 2013---14,621 students with autism

Cause, Treatment, and Cure

- No known cause although most speculate an environmental trigger to those with a genetic predisposition.

- Treatment of choice is early and intensive behavioral treatment.

Autism is a cottage industry

- Just because it's published, it's in a journal or on a website its NOT EVIDENCED BASED.

- Help your parents be smart consumers and lead them to the resources necessary to making an educated decision regarding treatment options.

Intervention Options for Children with Autism

The Amazing Array of Interventions for Individuals with Autism

Acupuncture….Animal Assisted Therapy…..Anti-yeast therapy….Aqua Therapy….Art Therapy…..Auditory integration Therapy….Augmentative and Alternative Communication…… Dance movement Therapy…..Deep Pressure Therapy……Detoxification from Heavy metals…Developmental Approach….Direct Instruction…Discrete Trial Instruction…… Dolphin Therapy….Earobics….Elimination Diets…Facilitated Communication…..Fast Forward…..Fluency Training…Gentle Teaching….Greens Span's Floor Time…Holding Therapy….Immunological Therapy….Incidental Teaching…..LEAP……Music Therapy…Occupational Therapy…Patterning….PECS……Pharmacological…….Physical Exercise……Physical Therapy….Pivotal Response Training……Play Therapy…Precision Training…..Psychoanalysis….Reflexology….Relaxation Techniques……Rhythmic Entrainment Scripting……Secretin…….Sensory Integration Training……..Social Stories…..Speech Language Therapy…TEACCH….Touch Therapy……Tomatis Method….Verbal Behavior Training…….Vision Training……..Vitamin Therapy……and this list is not exhaustive!

Autism Interventions: The Jargon

Cue, S^D, Antecedent, Response,
Consequence

Instruction, Behavior, Reward

Mand, Tact, EO, Verbal Behavior,
Intraverbal, DRA, DRO, Extinction,
TEACCH, DTT, PECS, AIT, SIT, FC, RDI,
PRT

Social Stories……..

ABA as the treatment of choice

- Applied Behavior Analysis (ABA) is the only scientifically validated treatment and is recommended by the U.S. Surgeon General.

- ABA treatment became popular in the mid-1990's when Catherine Maurice, a parent of two children with autism who both "recovered" from autism using this approach, published two books detailing Lovaas type ABA therapy.

Applied Behavior Analysis (ABA)

- Definition

    "Applied behavior analysis is the science in which procedures derived from the principles of behavior are systematically applied to improve socially significant behavior."

    (Cooper, Heron, and Heward)
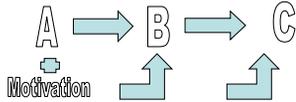
Basic Behavioral Principles

<u>Antecedent</u> - **any stimulus that happens** *before* **a behavior**

<u>Behavior</u> - **an observable and measurable act of an individual**

<u>Consequence</u> - **any stimulus that happens** *after* **a behavior**

Three (Really Four) Term Contingency

Antecedent--Behavior--Consequences

$$A \Longrightarrow B \Longrightarrow C$$

Motivation

Motivation is now seen as playing a significant role in this model (Michael)

Examples of Three Term Contingency

- "Touch nose" – Child touches nose – receives piece of cookie

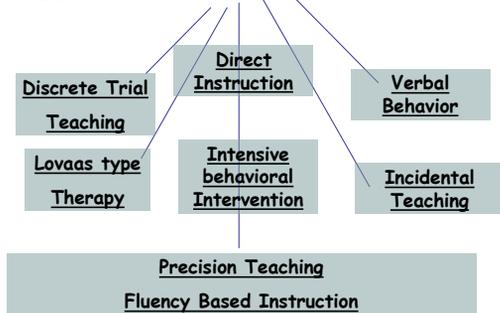- "Do Puzzle" – Child falls to floor – Demand withdrawn

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You use the principles of ABA all day long!

- ABA is used to:

  – Increase positive behaviors
    - Language, self care skills, academic skills.
  – Decrease negative behaviors
    - Tantrums, biting, kicking, crying

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Using ABA and Verbal Behavior (VB) to Increase Positive Behaviors

- Increasing language and learning skills using the principles of ABA and B.F. Skinner's Analysis of Verbal Behavior

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Applied Behavior Analysis

Discrete Trial Teaching

Direct Instruction

Verbal Behavior

Lovaas type Therapy

Intensive behavioral Intervention

Incidental Teaching

Precision Teaching
Fluency Based Instruction

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What is Verbal Behavior?

Behavior that is reinforced through the mediation of another person's behavior
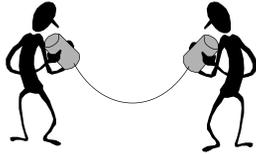
Dual Path of Applied Behavior Analysis Research

LOVAAS (UCLA)	**MICHAEL (WMU)**
ABA Research	ABA Research
Plus	*Plus*
Discrete Trial Training	Discrete Trial Training
(structure)	*Plus*
	Skinner's Analysis of
	Verbal Behavior
	(function)

Common terms for the Verbal Operants

Mand = request

Tact = label

Intraverbal = conversation, answering a question, responding when someone else talks

Echoic = repeating what someone else says

Receptive or Listener Responding = following directions

Verbal Operants

Verbal Operant	Antecedent	Behavior	Consequence
Mand	Motivative Operation (wants cookie)	Verbal behavior (says "cookie")	Direct reinforcement (gets cookie)
Tact	Sensory Stimuli (sees or smells cookie)	Verbal behavior (says "cookie")	Non-specific reinforcement (gets praised, for instance)
Intraverbal	Verbal stimulus (someone says:"What do you eat?"	Verbal behavior (says "cookie")	Non-specific reinforcement (gets praised, for instance)
Echoic	Verbal Stimulus (someone says "cookie")	Verbal behavior: repeats all or part of antecedent (says "cookie")	Non-specific reinforcement (gets praised, for instance)
Receptive (actually not a verbal operant)	Verbal stimulus (someone says "touch cooke")*	Non-verbal behavior (child touches cookie)	Non-specific reinforcement (gets praised, for instance)

Two other related skills:

Imitation: Given another person's motor action in the antecedent condition, the child performs the same action.

Match to Sample: matching activities involving either identical or non-identical items. (This is a very simplistic definition for a very critical skill area also referred to as conditional discriminations.)

Why Teaching Mands is Important

- It helps children avoid frustration in communicating their needs and wants
- It is relatively easy to do because you are using the child's own motivation as a tool
- It is a natural first step in teaching communication

The Mand
(Requesting)

All mands have one thing in common: in the antecedent condition, there is a Motivative Operation (or motivation) in place.

> A= thirst (MO)
>
> B= "I want juice"
>
> C= student gets juice

If a child does not want the item, you cannot teach them to mand for it.

Examples of contriving an MO

- Holding up an M&M within eyesight of the child
- Giving the child a bottle with a tight lid. In the bottle is his favorite toy.
- Giving the child a bowl of cereal with no spoon.
- Giving the child a toy that requires batteries but withholding the batteries
- Briefly turning on his or her favorite video.
- Giving a bit of his or her favorite snack to another child.

When Negative Behaviors
Occur During Mand Training

Do not reinforce whining/crying or other negative behaviors

Count and Mand

Child has to learn that crying will not get them anything….appropriate manding will!

Keep Number and Effort of Demands Low at First

- Gradually fade in more difficult tasks
- Avoid escape oriented behaviors: effort and demands should always be outweighed by easy responding
- Make demands low at first: deliver reinforcement much more often than you ask the child to perform

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A Baker's Dozen Intervention Tips for Children with Delays

- Thirteen tips based on the science of ABA and BF Skinner's analysis of Verbal Behavior that you can start using immediately with all children and adults with language delays and disorders

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1 – Be Positive

1. Be Positive! Use 8 positives for every negative. Don't overuse the child's name especially when saying "no" or placing a demand

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#2 Pairing

2. "Pair" yourself and the environment with reinforcement by giving the child lots of reinforcement with no effort required .

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3 Giving Directions

3.   When giving a child a direction

*   **Simplify the language**
*   **Make sure you are close enough and loud enough   for him   to hear.**
*   **Get down to child's level to get child's attention**
*   **Only give directions you can make the child do**
*   **Give the instruction only once and, if no response, prompt the child to complete the task.**
*   **Don't give the child a direction you're not willing to follow through with**

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#4 Reinforcement

4. **Look for things that reinforce the child. Set up high interest activities: bubbles, water play, balls, wind up toys to see if any of these are motivators.   Put these things out of reach so the child needs you to get them.**

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Learn How the Specific Child experiences the world and provide input the child finds reinforcing

- How does the child like to be touched?
- What types of sounds does the child enjoy?
- What types of movement does the child enjoy?
- What does the child like to look at?
- What does the child like to smell?

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#5 Mand Training

5. **Teach the child to communicate his needs and wants…first by pulling, reaching…then by using sign language, pictures, or words. Teach 3-5 signs at a time.**

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#6 Matching

6. Teach the child to match items and pictures. Label the item instead of using the command "match" or "put with same."

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7 Imitation

7. Teach imitation skills.
    – With objects/toys.
    – Gross motor….Pick 2 or 3 movements to target at the same time. Provide as much prompting as needed to ensure the child is successful.

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8 Receptive Skills

8. **Teach receptive skills:**

- **touch body parts, items or pictures**
- **pick 2 or 3 receptive skills**
- **provide as much prompting as needed to ensure the child is successful.**

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#9 Give Directions You Can Prompt

9. **Since you can't force a child to speak, do not use "say_____" if the child cannot speak or if this is a hard skill. (Say "cookie, cookie, cookie" as you deliver a small piece of cookie)**

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10 Teach Fill-ins to Songs

10. **Use music and familiar nursery rhymes…leave the last word of each line blank to see if child fills it in.**

11 Sabotage Daily Life

11. Sabotage daily life to see if child notices/indicates/or requests:

- **Give cup without juice.**
- **Cereal without spoon.**
- **Coming upstairs, do not turn off music.**
- **Spill milk…don't clean it up immediately.**
- **Go a different route in the mall.**

12 Do Not Reinforce Problem Behavior

12. **Do not respond whining, kicking, screaming and other negative behaviors.**

For problem behavior related to access to attention/tangibles:
- **Walk away, Ignore, or use the Count and Mand procedure**

For escape related problem behavior:
- **Ignore problem behavior and continue demand**

13 Prevent and Correct Errors throughout the day!

Instructor: **Points to an apple and says What is it?**
Child: "bird."
Instructor: **"What is it—apple"**
Child: echoes "apple"
Instructor: **Right, what is it?**
Child: "apple"
Instructor: **Presents 2-3 easy demands and then "what is it?"**
Child: "apple"

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Build Pre-Verbal Social-Communicative Skills

- Eye gaze/facial gaze
- Shared affect
- Joint attention to objects/activities
- Give/handing an object to you
- Pointing to/looking to objects and back to you (joint reference/shared reference)

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Some Take Home Points for Use With All Children (and Adults)

- **Pairing**
- **Manding**
- **Once the child can mand for items, ease in demands gradually**
- **Prevent and Correct Errors throughout the day**
- **Don't reinforce problem behaviors**

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Switching to an ABA/VB approach

- **Scientifically validated approach**
- **Child friendly**
- **Should see decrease in negative and increase in positive behaviors fairly quickly**
- **Data based decision making**
- **Encourages all team members to treat behaviors consistently and increase demands at the same pace.**