An Introduction to Verbal Behavior and the VB-MAPP

Presented by
Marrea Winnega, Ph.D., BCBA
Licensed Clinical Psychologist
Board Certified Behavior Analyst
mwinnega@gmail.com
December 11, 2017

Books

- The Verbal Behavior Approach by Mary Lynch Barbera
- Motivation & Reinforcement by Robert Schramm
- Verbal Behavior by B.F. Skinner

ABC Analysis/Teaching
Operant 3 Term Contingency:
Antecedent → Behavior → Consequence
Use to analyze behavior AND All teaching interactions
• Antecedent means before
• Behavior is what the person does
• Consequence means after the behavior and as a result of the behavior

Adding Motivation
A → B → C
• There is a specific concept called Motivating Operations (MO)
• This creates a Four-term contingency:
Antecedent/MO → Behavior → Consequence

Motivation
A/MO → Behavior → C
MO's momentarily alter the VALUE of the consequence and momentarily EVOKE (or abate) behaviors that have been followed by that consequence

Operant 4 Term Contingency
A/MO BC
Antecedents (signals)+Motivating Operations (evokes) → Behavior → Consequence
Antecedent is a discriminative stimulus that signals the availability of a certain consequence
For example: Evokes behaviors to access something (food, water, sleep, activity*, etc.) because have not had it for some period of time OR Abates these behavior when satiated. Other examples – becoming too warm or too cold*; engaging in behaviors to decrease pain*
Motivation

• Motivation for specific items can be altered by:
  • Creating a specific state (making thirsty)
  • Limiting access to the specific item
  • Signaling the availability of the item
• We must understand what motivates our learners
• Items our learners ask for or frequently play with
• Items can be pleasing, but not function as reinforcers

Reinforcing Consequences

➢ Reinforcers SHIFT! And that is ok.
➢ What we want or like at one moment will change, especially when we are satisfied with it or satiated
➢ Adult example: Hard day at work. Don’t want to cook. Go to favorite restaurant ($$); driving there and ordering are behaviors to get food). Then I’m full and done eating – satiated. I go home and watch a movie or my favorite television show, read a book, or call a friend. I do not eat dessert because I am full/satiated.

Reinforcing Consequences

➢ Student example 1: Student really likes chips. When he does well, he gets 3 or 4 chips at a time. He gets chips for every 3 to 5 responses.
➢ When he has eaten a bag of chips, he will be full and no longer want the chips.
➢ And now he will need a drink (being thirsty). Reinforcer shifts to preferred beverage (could be water, milk, juice or pop – whatever student likes) because of motivating operation.

Verbal Operants

Analysis of Verbal Behavior

• Basically, this approach takes into account the antecedents (As) and consequences (Cs) that surround different types verbal behavior
• Example:
  Motivation: Students “wants” juice
  Teacher/parent (antecedent): Holds the juice and may say, “What do you want?” (and juice is available)
  “Juice” = request (or mand) Juice (response)
  Reinforcer = getting juice (consequence)

Verbal Behavior

• Teacher: “What is it?” (antecedent)
• Learner: “Juice”
  “Juice” = labeled juice (response)
• Reinforcer/consequence = socially mediated, non-specific reinforcement, the child does not get the juice in this situation (this is a label or “tact”).

Topography/form of verbal behavior is the same “juice,” reinforcer is different

Verbal Behavior

Different functions of verbal behavior do not automatically generalize/transfer:

***THIS IS THE KEY ***

Essential functions:
  to request,
  label,
  answer questions,
  receive or give information.
This means: When children with autism learn a label, it does not transfer to requests
Verbal Behavior - Skinner

- Any oral and non-oral forms of communication
- Mostly maintained by social reinforcement
- Forms include: Speaking, signing, pointing, writing, gesturing, touching, Braille, texting, emailing, beeping your horn at someone to get out of your way, etc.
- Excludes: Typing on a typewriter

Verbal Operants

<table>
<thead>
<tr>
<th>A: Antecedent</th>
<th>B: Response</th>
<th>C: Consequence</th>
<th>Verbal Operant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want ball</td>
<td>“ball”</td>
<td>Receive ball</td>
<td>Request/Mand</td>
</tr>
<tr>
<td>See/feel ball</td>
<td>“ball”</td>
<td>Praise/pretzel*</td>
<td>Label/Tact</td>
</tr>
<tr>
<td>Hear “ball”</td>
<td>“ball”</td>
<td>Praise</td>
<td>Vocal Imitation/Echoic</td>
</tr>
<tr>
<td>“We play with a ___”</td>
<td>“ball”</td>
<td>Praise</td>
<td>Intraverbal</td>
</tr>
</tbody>
</table>

Verbal Operants

<table>
<thead>
<tr>
<th>A: Antecedent</th>
<th>B: Response</th>
<th>C: Consequence</th>
<th>Verbal Operant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want car</td>
<td>“car”</td>
<td>Receive car</td>
<td>Request/Mand</td>
</tr>
<tr>
<td>See/feel car</td>
<td>“car”</td>
<td>Praise/juice or light up toy*</td>
<td>Label/Tact</td>
</tr>
<tr>
<td>Hear “car”</td>
<td>“car”</td>
<td>Praise</td>
<td>Echoic (Duplic)</td>
</tr>
<tr>
<td>“We ride in a” OR “Name a vehicle” OR “Something with wheels is a”</td>
<td>“car”</td>
<td>Praise</td>
<td>Intraverbals: Function/Class/Features</td>
</tr>
</tbody>
</table>

Verbal Behavior - Additional Classifications of Language

Note: Focus on function not structure/form

- Receptive Language: Following instructions or the requests/mands of others (When told, “Touch dog,” Learner touches the picture of dog)
- Imitation/Mimetic – copying sign language
- Copying Text
- Textual – reading written words
- Writing – write words you hear spoken

Overlapping Terms

<table>
<thead>
<tr>
<th>BCBA</th>
<th>Speech/Language Pathologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mand</td>
<td>Request</td>
</tr>
<tr>
<td>Tact</td>
<td>Comment</td>
</tr>
<tr>
<td>Motivating Operations</td>
<td>Communicative Temptations</td>
</tr>
<tr>
<td>Echoic</td>
<td>Imitation</td>
</tr>
<tr>
<td>Intraverbal</td>
<td>Conversation/Exchanges</td>
</tr>
<tr>
<td>Generalization</td>
<td>Carry-over</td>
</tr>
</tbody>
</table>
An Introduction to the Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP

Information from Mark Sundberg

The VB-MAPP
- An assessment tool
- Curriculum guide
- Tracking system
- Based on the behavioral analysis of language as described by B. F. Skinner in his book *Verbal Behavior* (1957)

The VB-MAPP
- Provides criterion referenced information regarding a child’s current skills
- Can serve as a basis for the selection of educational objectives
- Provides a skills tracking system:
  - to observe and document a student’s progress in the acquisition of critical skills and
  - to identify skill areas that remain in need of further development
- Has been designed to assess a variety of language skills
- Accounts for a student’s motivation
- Accounts for the student to attend to both verbal and nonverbal stimuli
- Emphasizes generalization of skills
- Provides an extensive list of skills*

5 Components of the VB-MAPP
- VB-MAPP: Milestones Assessment
  - 170 verbal behavior milestones across 3 developmental levels (0-18 months, 18-30 months, 30-48 months) and 16 different verbal operants and related skills
- VB-MAPP: Barriers Assessment
  - 24 common learning and language barriers faced by children with autism
- VB-MAPP: Transition Assessment
  - Evaluates a child’s ability to learn in less restrictive educational environment across 18 different skills

The VB-MAPP
- Based on typical language development milestones
- Identifies milestones for a sharper focus and clearer direction
- Field test data from approximately 75 typically developing children
- Field test data from over 200 children with autism
5 Components of the VB-MAPP

- VB-MAPP: Skills Task Analysis and Tracking
  - Breakdown of the different skill areas
  - Checklist for skills tracking
- VB-MAPP: Placement and IEP Goals
  - Recommendations for program development based on the student’s VB-MAPP profile
  - Over 200 IEP objectives directly linked to the skills and barriers assessments

The Milestones Assessment

- Identifies the child’s existing language and related skills.
- Contains 170 measurable learning and language milestones that are sequenced and **BALANCED** across 3 developmental levels.
- IEP goals can match the milestones instead of individual skills

Rationale

- Typical verbal milestones help to
  - avoid focusing on only minor steps
  - avoid targeting skills for intervention that are developmentally inappropriate
- By identifying milestones, as opposed to a task analysis of individual skills, the focus can be sharper and the direction clearer.

16 Milestones Assessment

- The elementary verbal operants (e.g., echoic, mand, tact, intraverbal)
- The listener skills
- Vocal output
- Independent play
- Social skills and social play

16 Milestones Assessment

- Visual perceptual skills and matching-to-sample
- Grammatical and syntactical skills
- Group and classroom skills
- Beginning academic skills

Milestones Assessment

- The milestones are broken into 3 developmental levels:
  - Level 1: 0 – 18 months (most children with autism are here)
  - Level 2: 18 – 30 months (significant developmental changes in typical children occur during this time)
  - Level 3: 30 – 48 months (Intraverbals and conversation develop)
**Additional Information About the Levels**

- The goal is for the student to not only make progress upward – but also across areas.
- Level 1 should be filled in before really focusing on Level 2 – Achieve a BALANCE
- This ensures that foundation repertoires are developed prior to moving into higher level more complex areas.

**The VB-MAPP Barriers Assessment**

- It is important to find out what a child can do (the VB-MAPP Milestones Assessment), but also important to know what they cannot do and analyze why they cannot do it.
- It is designed to identify and score 24 learning and language acquisition barriers that might impede a student’s progress.

**Rationale**

- Absence of skills and the presence of barriers are closely related.
- Intervention program should include both skills that need to be increased and behavior or barriers that need to be decreased.
- For some students the immediate program should focus on removing a particular barrier.

**General Categories of Barriers**

1. Negative Behavior and Cooperation
2. Absent, Weak or Defective Verbal Operants
3. Social Behavior
4. Fundamental Barriers to Learning
5. Specific Behaviors that Compete with Learning
6. Physical Barriers

**Why look at the Barriers?**

- For some children the immediate focus of the intervention program is on removing a particular barrier, rather than language instruction
- The most common immediate barriers to remove involve instructional control problems, or other behavior problems
- Focus: Increase manding, cooperation and waiting; decrease problem behavior