Manding and More for Young Children:
Kick Starting Communication

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Presentation Summary

- Why is requesting (manding) important
- Applied Behavior Analysis and Verbal Behavior
- More about Manding
- Communication Camp
  - Intensive, daily sessions
  - 2-week camp

The Story of:
Why requesting is important in your life

More Learning Opportunities
Neurotypical Child | Child with Autism
---|---
1,000 learn opportunities a day | Few learn opportunities a day
Learn from their environment | Poor observational learners
Specific instruction not needed | Specific instruction necessary
Strong speaking skills | Weak speaking skills
Strong listening skills | Weak listening skills

*A child with autism has to learn at a faster rate than typical peers just to catch up.*

"Learning Opportunity" or "Learning Trial"

- A unit of learning that occurs when an adult presents a stimulus (e.g., instruction, picture, object) to a child, the child has an opportunity to actively respond, and the adult follows with either praise/reinforcer or corrective feedback. Each series of instruction, child response, adult response is considered one learning opportunity.

**Presenting Instruction**

<table>
<thead>
<tr>
<th>STIMULUS</th>
<th>RESPONSE</th>
<th>CONSEQUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction/Stimulus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Do This&quot;: Imitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;What is this&quot;: Exp language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toy on the shelf: Exp language (request)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Give me the . . .&quot;: Receptive language</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REINFORCEMENT**

*What makes the behavior happen*

*PROMPT*

*What increases the chance the behavior will happen again*

**What is this?**

The Basics of Applied Behavior Analysis (ABA)
What is ABA?

**ABA is Good Teaching**

ABA: An Evidence-based Practice

- ABA is listed as an evidence-based practice by:
  - National Standards Project (2015)
  - National Professional Development Center on ASD (2014)
  - Association for Science in Autism Treatment
  - Numerous books and articles on evidence-based practice

ABA: An Evidence-based Practice

- Discrete Trial Teaching (DTT)
- Incidental Teaching
- Verbal Behavior
- PECS
- Pivotal Response Training

Different Teaching Methods Based on ABA

ABA: Verbal Behavior

Overview of Concepts
Verbal Behavior

... is communication

... focuses on the function of language

... can also include sign language, picture systems, gestures or assistive technology

An Overview of Verbal Behavior

1957 – B. F. Skinner wrote the book *Verbal Behavior*

“Understanding why people say what they say and accounting for it is the most important thing we can study regarding the human condition”

Verbal Behavior

- Skinner wanted to know why people say what they say.
- Skinner proposed that language is behavior that is primarily caused by environmental variables such as reinforcement, motivation, extinction, and punishment.
- Verbal language is established and maintained through reinforcement.
- Reinforcement is mediated by a listener

Verbal Behavior

- A word is not defined by its form but by its functional category

- The same word has many different functions (e.g., mom)
  - Say “mom”
  - I see mom
  - I want mom
  - Where is mom?
Verbal Behavior

The "concept" of a word...

- **Mand** – to request; ask for what you want
- **Tact** – to label; say what things are
- **Intraverbal** – answer questions; verbal responses to others' verbal behavior
- **Receptive** – a non-vocal response following instructions
- **Echoic** – repeating utterances heard through vocal imitation

Verbal Operants

- **Mand** – to request; ask for what you want
- **Tact** – to label; say what things are
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- **Echoic** – repeating utterances heard through vocal imitation

Mand

- Requesting for what you want (food, drink, tickles, hug, objects, activities, etc.)
- Controlled by the individual's **motivation**

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Mand</th>
<th>Outcome/Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing outside on a hot day</td>
<td>&quot;I am thirsty&quot; or signing drink</td>
<td>Drink is provided</td>
</tr>
<tr>
<td>Given a new coloring book</td>
<td>&quot;Color&quot;</td>
<td>Crayon is provided</td>
</tr>
</tbody>
</table>

Manding

- Communicate wants and needs
- Use the student’s motivation to teach
- Student can control the environment

\[ \text{Motivation (MO)} + \text{Response} = \text{Specific Reinforcement} \]

- Wants bubbles
- Says "bubbles"
- Gets bubbles
Tact
- Naming or labeling objects, actions, experiences (what you see, hear, smell, taste, feel)
- Label is controlled by contact with something (S^D)

<table>
<thead>
<tr>
<th>Discriminative stimulus-S^D</th>
<th>Tact</th>
<th>Outcome/Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water fountain</td>
<td>“Water”</td>
<td>“Yes, that is the water fountain.”</td>
</tr>
<tr>
<td>Crayon box</td>
<td>“Colors”</td>
<td>“The box has lots of crayons!”</td>
</tr>
</tbody>
</table>

Echoic
- Repeating what you hear
- Controlled by what is heard

<table>
<thead>
<tr>
<th>Discriminative stimulus</th>
<th>Echoic</th>
<th>Outcome/Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Say “drink”</td>
<td>“Drink”</td>
<td>“That’s right!”</td>
</tr>
<tr>
<td>Say “red”</td>
<td>“Red”</td>
<td>“It is red!”</td>
</tr>
</tbody>
</table>

Intraverbal
- Conversing or answering questions
- Controlled by the verbal behavior of others

<table>
<thead>
<tr>
<th>Discriminative stimulus</th>
<th>Intraverbal</th>
<th>Outcome/Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>“What do you want to drink?”</td>
<td>“Juice”</td>
<td>“That sounds good.”</td>
</tr>
<tr>
<td>Which coloring book do you want?</td>
<td>“Train” or sign train</td>
<td>“You can have the train book.”</td>
</tr>
</tbody>
</table>
Why Manding?

In most children, manding is the first repertoire established (e.g., infant crying to request food).

Many students with ASD have not learned to effectively mand to obtain things they want or need.

Successful manding reduces behavior problems.

Why is Manding Important?

Teaching Requesting (Manding)
- Social responsivenes
  - Responsive to requests (eye contact and one-step directions)
  - Responding to initiations
- Imitation Skills
  - First year priorities and beyond

Guidelines for Teaching Manding

Top 3 Targets for Intervention

(Weiss & Zane, 2010)
Students are more likely to mand if they receive what they asked for:
- Initially, if the child asks, we give!
- As the requesting behavior becomes more established, the concept of waiting can be added.

Manding for Young Children with ASD can include Mands for:
- Desired items (e.g., “Want train”) 
- Necessary items (e.g., “I need a spoon”) 
- Assistance (e.g., “Help please”) 
- Attention (e.g., “Watch me!”) 
- Actions (e.g., “Swing me”) 
- Information (e.g., “What is it?”) 
- Negative reinforcement – removing something unwanted (e.g., “Go away”, “I need a break”)

Basic Manding

Avoid:
- Non-specific or too general (more, please, eat, toy)
- Removing aversives (finished, break, go play)
- Hard to deliver (swimming, playground, animal)
- Hard to remove (lollipop, outside)

Select for first words:
- Strong motivation
- Slow satiation
- Specific items*
- Easy to deliver
- Consumable or removable
- Known response form
- Reinforced in natural environment

*actual foods, drinks, toys, items, actions or people by name (pretzel, water, push)
Where to Begin for Requesting Training?

Preferred Items, Activities & Routines

- Short-lived reinforcers
  - Single mini M&M
  - One blow on the bubble wand
  - Spinning light for 5 seconds
  - A quick high five and a “Great job!”

Reinforcement

- Teaching Manding: Basic Strategies
  - Begin with the preferred item present
  - First opportunity: Provide a freebie while verbally labeling the item, “bubbles”!
  - Next opportunity:
    - Model the sign while verbally labeling the item, “bubbles”
    - Then physically prompt the student to sign for the item; label it again, “bubbles”
    - Provide the item and label it again, “bubbles”

Teaching Requesting Using Sign Language
Teaching Requesting with a Prompter

- The initial stages of PECS training require a silent prompter
- Children with limited attention to visual models and/or who have poor imitation skills may also require a prompter to learn signs

Prompting

- Verbal prompts
- Visual prompts
  - Model prompts
  - Picture prompts
  - Gestural prompts
  - Positional prompts
- Physical prompts
  - Blocking
  - Initiation prompts
  - Full Physical prompts
Protocol for Basic Vocal Mand Training

1. Check for motivation (Motivation operation-MO) - hold out item and see if child reaches or wants.
2. Say name of item, wait for echo and deliver item (reinforcer).
3. After several successful practice trials, fade vocal prompt.
4. When mastered with item present, move target to spontaneous mands.

Vocal Manding Example

Supernanny

Antecedent → Behavior → Consequence

Fading Prompts

Fade physical prompts to form the sign or to pick up/point to the picture:
- Fade from full physical to partial physical prompts.
- Fade from a partial physical to a time delay prompt.

Fade the model of the sign:
- At first, you model, the student imitates.
- Later, use time delay (bring up the item and wait before modeling the sign to the child).

Implementing a Mand Training Program
Steps for Setting up a Manding Program

1. Assessment and baseline (e.g. VB-MAPP)
2. Identify reinforcing items and motivation
3. Identify response form (vocal, sign, picture exchange, assistive technology)
4. Develop goals
5. “Cleanse” Environment of reinforcers
6. Provide daily instruction with multiple opportunities
7. Collect data

Approaches

1. Intensive, Daily Mand Training Sessions
   Long term, multi-step approach
2. 2-Week Communication Camp

Intensive, Daily Session Approach

Lena’s Communication Sessions

- Gaining attention
- Automatic reinforcement of echoics
- Manding for preferred items
- Manding for needed items
- Manding for help
- Reciprocal communication
Lena's Communication Sessions

- Lena high five low attention
- Lena auto rein of words
- Lena comm camp 2
- Asking for help candy
- VB MAAP

Lena's Communication Data

November to February

Lena – Social communication
Communication Camp Approach

What is Communication Camp?
- A fun, 2-week adventure where the child develops new skills that will last a lifetime
- During the 2-week communication camp, the focus is on establishing opportunities for requesting while teaching the student to initiate communication
- This student’s participation in other activities may be temporarily decreased or altered, so that communication can be emphasized

Choose Requesting Targets
Initially, try to choose 1 target from each quadrant

<table>
<thead>
<tr>
<th>Foods/Drinks/Snacks:</th>
<th>Toys with Multiple Pieces:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chips</td>
<td>Puzzles</td>
</tr>
<tr>
<td>Pretzels</td>
<td>Play-doh</td>
</tr>
<tr>
<td>Juice</td>
<td>Train tracks</td>
</tr>
<tr>
<td>Water</td>
<td>Cars</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interactive/Motor Activities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tickles</td>
</tr>
<tr>
<td>Swinging</td>
</tr>
<tr>
<td>Trampoline</td>
</tr>
<tr>
<td>“blanket slide”</td>
</tr>
<tr>
<td>Spinning in desk chair</td>
</tr>
<tr>
<td>Bouncing on therapy ball</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toys Requiring Help:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubbles</td>
</tr>
<tr>
<td>Balloons</td>
</tr>
<tr>
<td>Spinning tops, toys</td>
</tr>
</tbody>
</table>

After You’ve Chosen approximately Four Requesting Targets...
- “Cleanse” the environment. The student only receives access to these items when you are implementing mand training, or when s/he spontaneously requests the item.
### Schedule Mand Training Sessions

- Implement approximately 10 requesting opportunities per "session" across 8-10 sessions per day
  - this way the child receives 80-100 opportunities to communicate per day

### Other Considerations for Mand Training Sessions

- If the child seems bored or disinterested with any of the items you’ve selected for mand training, switch to another selected item or identify something else to replace it
  - The child **must be motivated** to communicate for the item for requesting training to be successful

### Classroom-Based Mand Training Sessions

- **4 requesting targets for this student:**
  - **bubbles, puzzle, cookie, spin**

<table>
<thead>
<tr>
<th>SCHOOL ACTIVITY</th>
<th>MAND TARGET</th>
<th>WHO WILL IMPLEMENT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathroom</td>
<td>Bubbles</td>
<td>Teacher/Parapro</td>
</tr>
<tr>
<td>Table activity</td>
<td>Puzzle</td>
<td>Parapro</td>
</tr>
<tr>
<td>Speech</td>
<td>Cookie/Spin</td>
<td>SLP</td>
</tr>
<tr>
<td>Circle</td>
<td>Bubbles/Spin</td>
<td>Parapro in hallway</td>
</tr>
<tr>
<td>Snack</td>
<td>Cookie</td>
<td>SLP/Teacher</td>
</tr>
<tr>
<td>Playtime</td>
<td>Puzzle/Spin</td>
<td>Teacher/Parapro</td>
</tr>
<tr>
<td>Motor Time</td>
<td>Spin/Puzzle</td>
<td>OT</td>
</tr>
<tr>
<td>Bathroom/Pack-up</td>
<td>Bubbles</td>
<td>Teacher/Parapro</td>
</tr>
</tbody>
</table>

### Home-Based Mand Training Sessions

- **4 requesting targets for this child:**
  - **bubbles, swing, juice, train**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>MAND TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor play</td>
<td>train (1 track/train at a time)</td>
</tr>
<tr>
<td>Outdoor play</td>
<td>Swing</td>
</tr>
<tr>
<td>Snack</td>
<td>Juice</td>
</tr>
<tr>
<td>In car waiting to pick up</td>
<td>Bubbles</td>
</tr>
<tr>
<td>Lunch</td>
<td>Juice</td>
</tr>
<tr>
<td>Kitchen clean up</td>
<td>Bubbles</td>
</tr>
<tr>
<td>Play</td>
<td>Swing or Train</td>
</tr>
<tr>
<td>Bathtime</td>
<td>Bubbles</td>
</tr>
</tbody>
</table>
Review of Setting up a Manding Program

1. Assessment and baseline (e.g. VB-MAPP)
2. Identify reinforcing items and motivation
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Questions