

Mand Training Basics

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Pennsylvania Training and Technical Assistance Network

PaTTAN's Mission

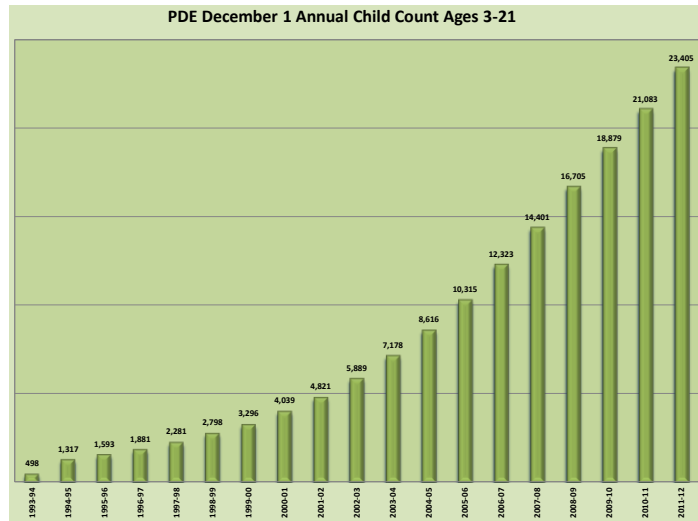
The mission of the Pennsylvania Training and Technical Assistance Network (PaTTAN) is to support the efforts and initiatives of the Bureau of Special Education, and to build the capacity of local educational agencies to serve students who receive special education services.

PDE' s Commitment to Least Restrictive Environment (LRE)

Our goal for each child is to ensure Individualized Education Program (IEP) teams begin with the general education setting with the use of Supplementary Aids and Services before considering a more restrictive environment.

The Rate at Which Children are Being Diagnosed with Autism is Increasing

- Need for quality services
- Need for services that address core deficits of autism
- Need for evidence-based treatment
- The purpose of this session will be to highlight one component of an effective treatment component for students with Autism and language impairments



What is a mand? Common terms:

- Request
- Asking for something
- A question
- Demanding
- Inquiring
- Commanding

Intro to Mand Video

Types of Mand

- Mands for :
 - items present
 - activities and actions
 - attention
 - missing items
 - items not present
 - information
 - continued conversation

Mand video Types of mands

What is a mand? The basic principle

- Want it, say it, get it.

hungry, say banana, someone gives you a banana

need to open a door, ask for key, someone gives the key

lost, ask for directions, someone gives directions

What is a mand? A more formal definition

- Verbal Behavior
 - Social
 - Requires an audience who “understands” (has been shaped to respond in specific ways)
 - Antecedent -Behavior -Consequence
- The Mand
 - Verbal behavior that directly benefits the speaker
 - Under control of motivation
 - Specifies the consequence (Reinforcer)
- Video of a mand session: Candace

Without mands, conversation could not occur

- 1. *conversant 1*: “What did you do last night? (mand for information)
 - 2. *conversant 2*: “I went with my son to see that new fantasy film.
 - 3. *conversant 1*: “Was it good?” (mand for information)
 - 4. *conversant 2*: “I liked it but my son found certain parts a bit scary.
 - 5. *conversant 1*: “Really?” (mand for more verbal behavior)
 - 6. *conversant 2*: “Yes, some of the dark magic stuff was too much, but he did like the flying wizards.”
 - 7. *conversant 1*: “I haven’t seen the movie yet.”
 - 8. *conversant 2*: “Oh, I think you should go, you seem to like that kind of stuff” (mand for action)
- And so on....

Autism Spectrum Disorders

- Developmental Disability
- Diagnosis derived from behavior
 - No brain scan or blood test
 - Assumed biological disorder
- Characterized by qualitative differences in:
 - Social communication (DSM V proposal)
 - Repetitive and stereotyped behaviors
- Wide variety of functional levels

Social Communication

- Between people
- Requires initiation of interaction
 - Approach behavior (initiation)
 - A history of people responding effectively to the initiation
 - Eye gaze and reciprocity
- A speaker and a listener

Autism and Social Communication

- Limited social approach
- Limited initiation
- Individuals with ASD may not have experienced the benefit of communication
- Limited eye gaze and attention to others
- Lack of flexible and specific communication

The Mand and Autism

- The mand requires:
 - Social approach and initiation
 - Interactions with other people as having value
 - Flexible and specific verbal responses (communication)
- The required skills directly compete with the core deficits of Autism Spectrum Disorders.

The Defective Mand

- Asking (the mand) can take many forms
 - Speaking
 - Gestures
 - Sign language
 - Picture Exchange systems
 - Various augmentative devices (I-Pads, VOCA devices)
 - Less pleasant forms:
 - Grabbing, screaming, climbing, hitting, self-injurious behavior, biting, and more

Defective Mand

- Problem behavior may serve as an effective request:
 - Inadvertent success of such behavior
 - Giving the child what they want when they scream stops the screaming
 - It also means the screaming was an effective means of getting what was wanted
 - If screaming was effective this time, it may be more likely to occur in the future

Effective Mand Training

- Can teach critical social communicative behaviors
- Can serve to reduce problem behavior

Mand Training and other types of Verbal Behavior

- Requesting is just one way we communicate
- We also talk/communicate to do things such as:
 - Label things we see, hear, and/or smell
 - To repeat things we have heard
 - To respond in words to things other people say to us
- Social communication also requires being a listener: responding to what others say to us by:
 - Following directions
 - Getting things that are named by someone else

Some Technical Terms

Tact: labeling

Echoic: repeating what has been said

Intraverbal: responding with words to things that have been said (conversation, answering questions, word associations)

Listener responding/receptive: following directions, selecting things named or otherwise behaving as a listener without speaking

Video of Verbal Operants

Motivation and the Mand

- What does it mean to want something?
- In many cases, we can consider wanting something as being related to events experienced by the child (the result of events in the environment!)

Motivation

- Food and drink
 - Deprivation, satiation and the passage of time
 - Food is valuable when you haven't eaten for some time
- Changes in conditions
 - A pen becoming valuable when one needs to write
 - Doll house furniture becomes valuable when you are given a doll house with nothing in it

Videos of motivation (oxygen, bubbles)

Motivation: Technical Effects

- Establishes Value of Reinforcer
 - Evokes Behavior
- OR
- Abolishes Value of Reinforcer
 - Abates Behavior

Mands can help develop other types of social communication

- Increases the value of speaking
- Transfer of skills from requesting to labeling or from requesting to following directions

Effective Mand Training

- Can teach critical social communicative behaviors
- Can serve to reduce problem behavior
- Can serve as a starting point for teaching various types of social communication
- Videos: teaching a vocal mand and teaching a signed mand

It is fun!

- Mands involve teaching the child to ask for what they want!
- This means that the process often involves the child's favorite activities or items

Video Mike with student

The Process of Mand Training

- Mands are easily acquired for typically developing children
- Complex process for many children
- Can be made simple
- The process can go quickly but for some children may take longer periods of time

Basic Steps

- Teach approach behavior
- Deliver wanted activities and items freely at first
- Model the response you want to teach (say it as you deliver!)
- Pause and see if the child asks (time delay)
- If necessary prompt the response
- Fade prompts

The Details

- Identify the response form
- Identify reinforcers that can be used in mand training
- Figure out how to control the reinforcer
- Pair delivery of the reinforcer with interaction with the trainer
- Model the mand form just prior to delivery
- Use time delay and prompt strategies
- Fade prompts
- Manipulate motivation in order to provide frequent opportunities to mand
- Teach mand discrimination and a broad set of mand examples
- Teach different types of mands
- Teach children to mand across many different people

Identify the response form

- Assess student skills
 - Echoic and imitation are central
- No one form is best!
- Vocal first!
- Other augmentative systems:
 - Sign language
 - Picture Exchange
 - Augmentative devices
 - Speech generating
 - Writing

Response Form Considerations

- “Topography” vs “Selection” based
- Portability
- Rate of acquisition
- Training specifics
- Complexity of use for listener
 - Audience identification and training
 - Fluent use

Identify Reinforcers that can be used in Mand Training

Reinforcer/Preference Assessment

Best Items:

- Can be delivered quickly
- Are consumable or allow only a brief period of contact
- Can be teacher controlled
- Are usually strongly motivating
- The sign or word used to mand for the item is not too hard to produce

Mand Target Selection Video

The student should readily approach the teacher to receive reinforcers.

- The “walk-up to the adult” effect
- The walk away assessment

Pair delivery of reinforcement with a model of the response form that the student will later be expected to emit. Say what you are delivering!

Saying what is delivered while it is being delivered conditions the sound of the word as a reinforcer!

Parity, automatic reinforcement, and stimulus-stimulus pairing

You will need to teach more than one mand right from the start.

Keep two to five mands active! (may vary by student)

Generalized mands can be a problem: avoid teaching *more, please, and help*. Also avoid teaching one mand that many serve to request many different things (“candy” serving as a request for many foods and activities.)

After verifying motivation and modeling the response, prompt the response as the student shows motivation.

Prompt with known skills if possible:

- *Echoic for vocal*
- *Imitation for signs*
- *Imitation for selection based responses*
- *Physical prompts when needed for sign or selection based responses*

For some mand items, an alternative procedure may be appropriate:

- If MO is strong and student is known or suspected to “know how to ask for it”;
- Use of a time delay (establish MO and then pause before delivering, if response occurs, reinforce, if no response occurs, follow prompt procedures or simply pair.)

Keeping Reinforcers Strong: Avoid Habituation

- Vary reinforcers used
- Vary the way reinforcers are delivered
- Vary schedule of reinforcers (VR)
- Stop delivery before it loses value
- Avoid using too much at any delivery

In some cases, it may be necessary to condition other items and/or activities as reinforcers.

Prompt Fading in Mand Training

Mand transfer trials can be done in two ways:

1. Within Trial Transfer: Check MO, prompt mand and after student responds, pause, wait for student to respond again and then deliver reinforcer.
2. Second Trial Transfer: Check MO, prompt mand and after student responds, deliver a little bit of reinforcer, then represent mand opportunity and use time delay. If mand is emitted, deliver more reinforcer.

Mand Transfer Trial Video

If prompts cannot be eliminated on a transfer trial, two options include:

1. Faded prompt transfer trial.
2. Repeated prompt procedure.

Mand Error Correction and Response to Scrolling

- Error responses do not contact reinforcement: remove the reinforcer
- Signal that reinforcement is not available
 - How this is done is dependent on child's history of responding when things wanted are withheld
- If necessary prompt hands to neutral position
- Pause (for 3 to 10 seconds, depending on variables like motivation, strength of extinction effects) This phase is to insure error/scroll does not contact reinforcement.
- Represent item and immediately prompt
- Provide transfer trial (if appropriate)

Mand Error Correction

- Remove Reinforcer
- Neutral Hands if necessary
- Pause
- Represent with Immediate Prompt
- Transfer

Mand Error Correction Video

Keep two kinds of data on mand training:

1. mand acquisition
2. mand frequency

Mand Data Systems Video

Mand Probe and Rate Sheet

Learner: _____ Week of: _____

ITEM	Visual Design	1-Item Spont.	Prior #Y's	Check	M	T	W	TH	F
					MO	MO	MO	MO	MO
				Was there an MO? →	No MO	No MO	No MO	No MO	No MO
				MO	MO	MO	MO	MO	
				If MO, did the child emit correct mand response? →	Y N	Y N	Y N	Y N	Y N
				MO	MO	MO	MO	MO	
				Was there an MO? →	No MO	No MO	No MO	No MO	No MO
				MO	MO	MO	MO	MO	
				If MO, did the child emit correct mand response? →	Y N	Y N	Y N	Y N	Y N
				MO	MO	MO	MO	MO	
				Was there an MO? →	No MO	No MO	No MO	No MO	No MO
				MO	MO	MO	MO	MO	
				If MO, did the child emit correct mand response? →	Y N	Y N	Y N	Y N	Y N
				MO	MO	MO	MO	MO	
				Was there an MO? →	No MO	No MO	No MO	No MO	No MO
				MO	MO	MO	MO	MO	
				If MO, did the child emit correct mand response? →	Y N	Y N	Y N	Y N	Y N
				MO	MO	MO	MO	MO	

Date	Total Manding Time/Session	Mands Prompted	Mands Unprompted	Mands Spontaneous	Mands/min		
					Prompted	Unprompted	Spontaneous

Cold probe mand trials always involve a check for motivation.

The probe involves two steps.

1. First probe for motivation
2. then probe for response.

MO/NO MO
Yes/No

Some Additional Mand Training Guidelines:

- Have a variety of reinforcers available across categories (toys, edibles, actions) that include:
 1. **Items you are targeting**
 2. **Mastered items**
 3. **Future targets**
- Make sure you run enough easy trials (known mands or free delivery)

Remember mand training does not end with teaching the child to ask for things that are immediately present or offered. Some other mand skill programs:

mands under control of MO

mands for actions

mands for attention

peer to peer mands

yes/no mands

mands for information

Remember

- Mand training is central to communication skill acquisition
- Mand training can address core deficits of Autism
- Mand training is tied to natural events and training functional skills
- It can reduce problem behavior!
- Mand training can be fun...

Thank you for your attention!

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