Verbal Behavior Milestones Assessment and Placement Program:
Overview, Administration and Programming Guidelines

Thursday, August 4, 2016

National Autism Conference
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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.

Pretest: True or False?

• The VB-MAPP is a curriculum.

Pretest: True or False?

- It is recommended to always administer the VB-MAPP assessment from the "bottom-up" (earlier milestones to later milestones).

Pretest: True or False?

- It is important to record specific student responses when administering the VB-MAPP.

Pretest: True or False?

- You should use the VB-MAPP milestones to determine when to move on to the next program.

Agenda

- Overview of operant analysis and verbal behavior
- VB-MAPP: Design and administration guidelines
- Supplemental assessment tools and tips
- Interpreting assessment results
- Organizing materials based on the VB-MAPP
- General programming considerations

OPERANT ANALYSIS AND VERBAL BEHAVIOR

A-B-C Analysis (Operant Analysis)

- A=**antecedent:** What happens before behavior
- B=**behavior:** What the individual does
- C=**consequence:** What happens after behavior

- When analyzing all teaching interactions, including social interactions, consider the **Antecedents, Behavior, and Consequences**

Operant Analysis Video

The Operant Analysis

Antecedent	Behavior	Consequence
Motivating Operation (MO) • Alters value of reinforcer • Evokes/ Abates behavior	**Response** • What student does • Observable/Measurable	**Reinforcement** • Increases future probability of behavior
Discriminative Stimulus (S^D) • Signals availability of reinforcement		**Punishment** • Decreases future probability of behavior
Prompts • Procedural use of discriminative stimuli		**Extinction** • Reinforcement no longer happens • Behavior fades

Verbal Behavior

- Skinner (1957) proposed that language is learned behavior – we are not born with prior knowledge of how to use language.

- Language involves a social interaction between speakers and listeners.

- Verbal behavior involves all of the movements of a person that are reinforced by a listener who has been trained to do so.

Form and Function of Verbal Behavior

- **Form: how the response sounds or looks**
  – For example, signing "book" is different from saying "book"
- **Function: when/ why we say what we say**
  – For example, the word "book" can be used in a variety of different ways. I can say "book:"
    - When I want a book
    - When I see a book
    - In response to someone else saying, "Book"
    - In response to someone asking, "What can you find in a library?"

Verbal Operants

- Having acquired one functional use of a word does not predict that it will be used for other functions.

- In order to teach our students to be able to use words across all their functions, we need to know the different functions of language (VERBAL OPERANTS) and understand the operant analysis of each of these.

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)

Other Relevant Operants

Operant	Antecedent	Behavior	Consequence
Listener Response	**Verbal stimulus (someone says "touch cookie")**	**Non-verbal behavior (child touches cookie)**	**Non-specific reinforcement (gets praised, for instance)**
Imitation Point to point correspondence <u>a.k.a. Mimetic</u>	**Non-verbal behavior (person performs an action, etc.)**	**Non-verbal behavior with point to point correspondence (person imitates same action)**	**Non-specific reinforcement (example: praise; 'you're right!', ''great job!' high five, pat on back, etc.)**
Match to sample	**Non-verbal behavior (presentation of stimuli)**	**Non-verbal behavior (in presence of one stimuli, a second stimuli is selected with shared properties).**	**Non-specific reinforcement (example: praise; 'you're right!', ''great job!' high five, pat on back, etc.)**

Let's Practice

As a result of:	One has a tendency to:	This is a:
Seeing a grape	Say "grape"	
Hearing a horn	Say "truck"	
Wanting a push on the swing	Say "push"	
Being told to "stand up"	Standing up	
Someone says "door"	Say "door"	
Someone says "door"	Say "keyhole"	
Smelling smoke	Say "barbeque"	
Seeing a cloud	Say "white"	

Let's Practice

As a result of:	One has a tendency to:	This is a:
Wanting to buy a book	Ask "where's my wallet?"	
Seeing banana	Say "yellow"	
Hearing "banana"	Say "yellow"	
Hearing "cowboy"	Say "boy"	
Being presented with a task	Say "later"	
Seeing teacher	Say "go away"	
Seeing teacher while getting ready for an activity	Say "can I have a marker?"	
Seeing teacher	Say "teacher"	
Hearing "teacher"	Say "teacher"	

VB-MAPP

What is the VB-MAPP?

- **Verbal Behavior Milestones Assessment and Placement Program**

- VB-MAPP provides information on a student's acquisition of verbal operants

VB-MAPP as Criterion Level Assessment

- Assessment and instruction systems are probably most effective when they are integrated and form a feedback loop

- The VB-MAPP provides a formative assessment that guides more fine grained analysis of student performance and instructional effectiveness

Program Components Fit Together

```
                    Data Systems

    Materials                      Assessments
   Organization                     VB-MAPP

 Staff Training/                  Program/Target
Treatment Fidelity                  Selection

                    Teaching
                    Procedures
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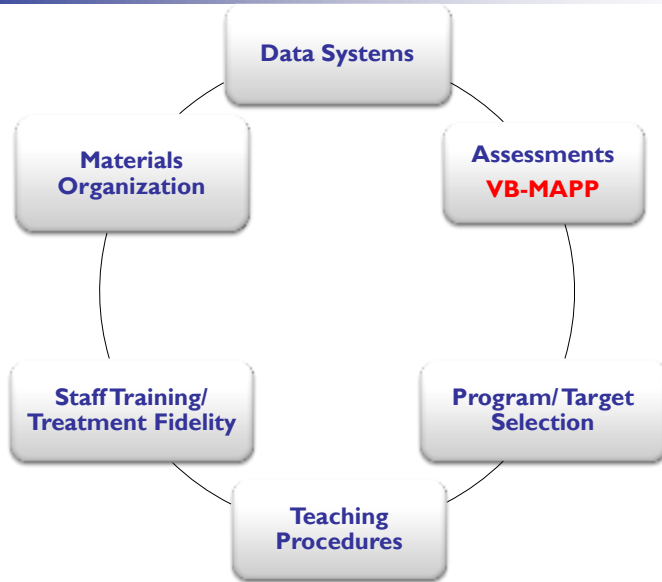
VB-MAPP Video

Why the VB-MAPP?

- Assesses acquisition of verbal operants as defined by Skinner, 1957
- Is designed to be easy and time efficient to administer
- Allows more detailed analysis of skill sets (task analysis) when needed
- Links to typical development
- Includes components that can assist in trouble shooting instruction (barriers assessment) and aid in transition to less restrictive environments (transition assessment)

VB-MAPP Overview

- Guidebook and Protocol Booklet

- 5 Components:
  - VB-MAPP Milestones Assessment
  - VB-MAPP Barriers Assessment
  - VB-MAPP Transitions Assessment
  - VB-MAPP Task Analysis and Skills Tracking
  - VB-MAPP Placement and IEP Goals (only in the guidebook).

- Resources: www.avbpress.com

Guidebook 10 Chapters

1. A Behavioral Approach to Language Assessment
2. General Administration Guidelines
3. Milestones Scoring Instructions: Level 1
4. Milestones Scoring Instructions: Level 2
5. Milestones Scoring Instructions: Level 3
6. The Barriers Assessment Scoring Instructions
7. The Transition Assessment Scoring Instructions
8. Interpreting the Level 1 Assessment: Curriculum Placement and Writing IEP Goals
9. Interpreting the Level 2 Assessment: Curriculum Placement and Writing IEP Goals
10. Interpreting the Level 3 Assessment: Curriculum Placement and Writing IEP Goals

Guidebook Highlights

- Summary of a behavioral approach to language
  - Distinction between speaker and listener
  - Form and function
  - Units of analysis (MO/Sd variables-response-consequence)
  - Distinctions between verbal operants
- Tips for tester
- Materials list
- Scoring guidelines for all sections
- Curriculum placement and IEP goal development guide

VB-MAPP Milestones Assessment

- 3 levels

- 16 milestone areas

- 170 measurable milestones

Levels Linked to Developmental Sequences

- Level 1= 0-18 months
- Level 2= 18-30 months
- Level 3= 30-48 months

- Developmental levels determined by tryout sample with typical children and calibrated with normative samples from other established language instruments. Age ranges are approximate.

Skill Area	Level 1	Level 2	Level 3
Mand	X	X	X
Tact	X	X	X
Listener Resp.	X	X	X
VP/MTS	X	X	X
Play	X	X	X
Social	X	X	X
Imitation	X	X	
Echoic	X	X	
Vocal	X		
LRFFC		X	X
IV		X	X
Group		X	X
Linguistics		X	X
Reading			X
Writing			X
Math			X
TOTAL:	9	12	13

VB-MAPP Assessment Grid

- Provides a graphic presentation of assessment results and progress between re-assessments

- Allows simultaneous display of 4 assessments at different points in time

Administering VB-MAPP Milestones

- 5 items in each domain at each level
- Each milestone scored 1, ½, or 0
- Items assessed by:
  – Direct testing (D)
  – Observation (O)
  – Either direct testing or observation (E)
  – Timed observation (TO)
- Prepare and label materials! Commercial kits are available (but not necessary).
  – See VB-MAPP Kit Contents

Milestones Assessment Scoring Guidelines

- Correct responses:
  - Instructor can reliably evoke the behavior on demand
  - Instructor specifically observes it
  - All relevant variables in place
- Errors:
  - Wrong response
  - No response in 3 seconds (not fluent)
  - Self-corrections/scrolling (unsure/guessing)
- Stop assessment if child misses 3 milestones in a row per skill area

EESA: Early Echoic Skills Assessment

Group	Points	Specific Speech Skills	Neurotypical Age	Level on VB-MAPP
1	25	Vowels, diphthongs, some early consonants	Up to 18 months	Level 1
2	30	Early consonants, 2-syllable combinations		
3	30	Early consonants, 3-syllable combinations	18-30 months	Level 2
4	10	Imitate prosodic features: Syllable stress		
5	5	Pitch, loudness, vowel duration		
Total:	100			

Administering EESA

- Can be administered by anyone, but optimally administered by SLP due to specialized training in speech sound discrimination.
- To administer:
  - Ask student to repeat each test item. Omit "say" if the child repeats the word.
  - Run up to 3 trials and score the best response if initial response is not accurate.
  - Enter X or / in the box next to each item, or leave box blank where applicable.

EESA Scoring Guidelines

- **Scoring for Groups 1-3**
  - 1 point (X): all sounds are correct
  - ½ point (/): recognizable response with incorrect consonants, missing consonants, added syllables
  - 0 points (blank): unrecognizable response, no response, incorrect vowels, or missing syllables

EESA Scoring Guidelines

- **<u>Scoring for Group 4</u>**
  - 1 point (X): emphasis on target syllables
  - ½ point (/): emphasis on non-target syllables
  - 0 points (blank): monotone/equal stress

- **<u>Scoring for Group 5</u>**
  - 1 point (X): response correct or nearly so
  - 0 points (blank): response does not closely match model

Choral Response Activity

- Identifying correct and incorrect responses.

Filling in the Milestones Grid

- Use a different color for each administration.
- Each block directly corresponds to the related milestone. If a student scored 0 on a milestone, leave the block blank.
- If a student did not master any milestones at a particular level, fill in the bubble to show that the milestones were assessed.
- Electronic version is available.
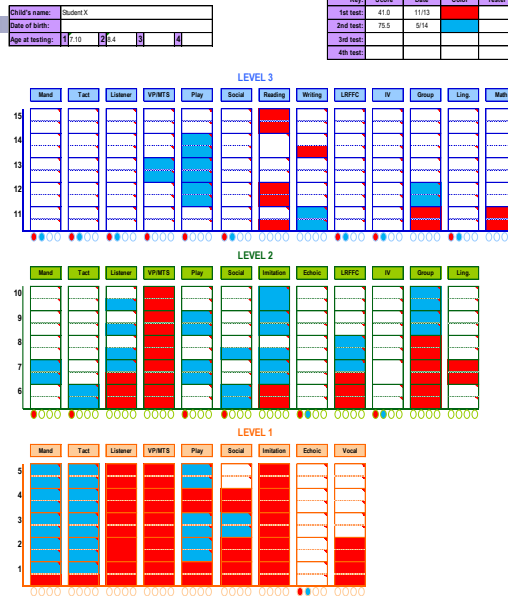
VB-MAPP Task Analysis

- Allows specification of instructional programs
  - Identifies sub-list of objectives within each Milestone

- Not a formal task analysis per se

- Provides a more detailed analysis of tasks at operant level for Milestones Assessment

VB-MAPP Task Analysis and Skills Tracking Chart: Level I (0-18 months)

VB-MAPP Barriers Assessment

- Identifies and scores 24 learning and language acquisition barriers

- Rating scale format: low scores are good scores

- Best used as an <u>initial step</u> to functional behavior assessment

24 Barriers

- Negative behavior
- Instructional control
- Absent, weak, defective mand
- Absent, weak, defective tact
- Absent, weak, defective imitation
- Absent, weak, defective echoic
- Absent, weak, defective matching to sample
- Absent weak, defective listener repertoires
- Absent, weak, defective intraverbal
- Absent, weak, defective social behavior
- Prompt dependent
- Scrolling responses
- Defective scanning skills
- Failure to make conditional discriminations
- Failure to generalize
- Weak or atypical motivators
- Response requirement weakens motivation
- Reinforcement dependent
- Self stimulation
- Articulation problems
- Obsessive-compulsive behavior
- Hyperactivity
- Failure to make eye contact or attend to people
- Sensory defensiveness

VB-MAPP Barriers Scoring Form

VB-MAPP Transition Assessment

- A guide to assist IEP teams in considering transitions to a less-restrictive environment

- Based on three areas:
  - VB-MAPP scores and academic performance
  - Learning patterns (such as generalization, variation of reinforcers, etc.)
  - Self-help, spontaneity, and self-direction

Transition Assessment Categories

Cat.	Skills		Information
1	VB-MAPP Scores and Academic Independence	•Overall VB-MAPP Milestones score •Overall VB-MAPP Barriers score •Barriers score on negative behavior and instructional control •Milestones scores on classroom routines, group skills, social behavior and play •Independent work on academic tasks	Provides guidance on how restrictive the placement needs to be
2	Learning Patterns	Generalization, variation of reinforcers, rate of skill acquisition, retention of new skills, natural learning environment, transfer to new verbal operants	Provides information on child's ability to learn new skills outside of intensive teaching
3	Self-help, Spontaneity, and Self-Direction	Adaptability to change, spontaneity, independent play skills, self-help skills	Should not bear as directly on placement but often does

VB-MAPP Transition Assessment

Rate the Child on a Scale of 1 to 5 for Each Area

1. VB-MAPP Milestones Assessment Score SCORE:

1. Scores 0 to 25 on the Milestones Assessment
2. Scores 26 to 50 on the Milestones Assessment
3. Scores 51 to 100 on the Milestones Assessment
4. Scores 101 to 135 on the Milestones Assessment
5. Scores 136 to 170 on the Milestones Assessment

2. Overall VB-MAPP Barriers Assessment Score SCORE:

1. Scores 56 to 96 on the Barriers Assessment
2. Scores 31 to 55 on the Barriers Assessment
3. Scores 21 to 30 on the Barriers Assessment
4. Scores 11 to 20 on the Barriers Assessment
5. Scores 0 to 10 on the Barriers Assessment

3. VB-MAPP Barriers Assessment Score on Negative Behaviors and Instructional Control SCORE:

1. A total score of 6 or 7 on negative behaviors and instructional control on the Barriers Assessment
2. A total score of 5 on negative behaviors and instructional control on the Barriers Assessment
3. A total score of 3 or 4 on negative behaviors and instructional control on the Barriers Assessment
4. A total score of 2 on negative behaviors and instructional control on the Barriers Assessment
5. The child has no behavioral issues, demonstrated by a score of 0 or 1 on Barriers Assessment

4. VB-MAPP Milestones Assessment Score on Classroom Routines and Group Skills SCORE:

1. Scores 2 points on classroom routines and group skills in the Milestones Assessment
2. Scores 3 to 4 points on classroom routines and group skills in the Milestones Assessment
3. Scores 5 to 7 points on classroom routines and group skills in the Milestones Assessment
4. Scores 8 to 9 points on classroom routines and group skills in the Milestones Assessment
5. Scores 10 points on the classroom routines and group skills in the Milestones Assessment

5. VB-MAPP Milestones Assessment Score on Social Behavior and Social Play SCORE:

1. Scores 2 or 3 points on social behavior and social play in the Milestones Assessment
2. Scores 4 or 5 points on social behavior and social play in the Milestones Assessment
3. Scores 6 to 9 points on social behavior and social play in the Milestones Assessment
4. Scores 10 to 12 points on social behavior and social play in the Milestones Assessment
5. Scores 13 to 15 points on social behavior and social play in the Milestones Assessment

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VB-MAPP Transition Scoring Form

Child's name:
Date of birth:
Age at testing: 1   2   3   4

Key:	Score	Date	Color	Tester
1st test				
2nd test				
3rd test				
4th test				

VB-MAPP Milestones Score | VB-MAPP Barriers Score | Negative Behaviors and Instructional Control | Classroom Routines Group Skills | Social Skills and Social Play | Independent Academic Work

Generalization | Range of Reinforcers | Rate of Skill Acquisition | Retention of New Skills | Natural Environment Learning | Transfer Without Training

Adaptability to Change | Spontaneous Behaviors | Self-Directed Leisure Time | General Self-help | Toileting Skills | Eating Skills

30 VB-MAPP Transition Scoring Form

SUPPLEMENTAL TOOLS AND TIPS

General Administration Tips

- Establish instructional control prior to administration!
  - Identify strong reinforcers
  - Pair yourself and instruction with student's positive reinforcers (conditioned positive reinforcement)

- Maintain student's reinforcement schedule while administering VB-MAPP

General Administration Tips

- If using materials (e.g., pictures/objects), make "correct" and "incorrect" piles during administration and record responses later

- Milestones can be assessed in non-sequential order (see attached description)
  - "top-down" assessment
  - "middle-up" assessment
  - "bottom-up" assessment

General Administration Tips

- VB-MAPP can be administered over multiple sessions

- Intersperse known tasks with more challenging tasks

- Mix and vary operants and tasks

- Make assessment fun!

Please Note…

- No supplemental materials to the VB-MAPP should be stand-alone documents!

- Need one VB-MAPP Protocol Booklet per student assessed.

- Generally need one VB-MAPP Guidebook per classroom/instructor.

Scoring Supplement

- Allows assessors to document student's specific responses

- Provides an appendix that contains numerous examples of different items to assess for different milestones

PENNSYLVANIA
VERBAL BEHAVIOR
PROJECT

VB-MAPP Scoring
Supplement

Student:_____

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June 2009
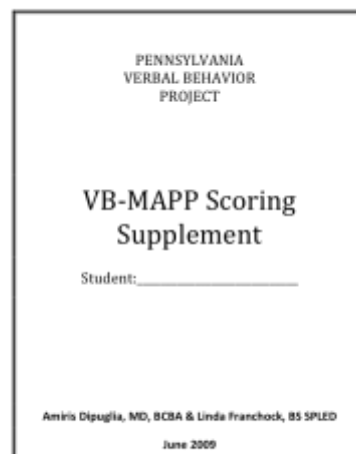
Scoring Supplement Example

		Mand				Level I
1	Emits 2 mands with echoic or imitative prompt(no physical prompts:	1.				½
		2.				1
2	Emits 4 mands w/o prompts except item and/or "What do you want?"	1.				
		2.				½
		3.				
		4.				1
3	Generalizes 6 mands across 2 people, settings, and examples.		People	Setting	Example	½
		1.				
		2.				
		3.				
		4.				
		5.				1
		6.				
4	Emits 5 mands in 1 hour (item can be present).	1.				½
		2.				
		3.				
		4.				1
		5.				
5	Emits 10 mands w/o prompts except item and/or "What do you want?"	1.				
		2.				
		3.				
		4.				
		5.				½
		6.				
		7.				
		8.				
		9.				1
		10.				

Appendix Example: Tact/LR Pictures

Animals

		T	R			T	R			T	R
161	Lion			171	Snake			181	Sheep		
162	Tiger			172	Lizard			182	Goat		
163	Elephant			173	Turtle			183	Cow		
164	Rhino			174	Spider			184	Horse		
165	Hippo			175	Frog			185	Dog		
166	Zebra			176	Fish			186	Rabbit		
167	Giraffe			177	Duck			187	Mouse		
168	Kangaroo			178	Turkey						
169	Bear			179	Chicken						
170	Alligator			180	Pig						

Vehicles

		T	R			T	R			T	R
188	Truck			195	Ambulance			202	Train		
189	Van			196	Police Car			203	Boat		
190	Jeep			197	Tow Truck			204	Ship		
191	Motorcycle			198	Truck-shipping			205	Helicopter		
192	Bus			199	Dump Truck						
193	Mail Truck			200	Bulldozer						
194	Fire Truck			201	Tractor						

Clothing

		T	R			T	R			T	R
206	Pants			212	Jacket			218	Socks		
207	Jeans			213	Sweatshirt			219	Belt		
208	Shorts			214	Swimsuit (g)			220	Hat		
209	Dress			215	Swimsuit (b)			221	Gloves		
210	Skirt			216	Underwear(b)						
211	Sweater			217	Underwear(g)						

Furniture

		T	R			T	R			T	R
222	Couch			224	Table-dining			226	Dresser		
223	Table (coffee)			225	Crib			227	Desk		

Appendix Examples: Tact/LR Body Parts and Prepositions

Body Parts	LD "Touch your __"	LD "Touch my __"	Tact "What's this?"
Arms			
Cheeks			
Chin			
Ears			
Elbow			
Eyes			
Feet			
Fingers			
Hair			
Hands			
Head			
Knee			
Legs			
Mouth			
Neck			
Nose			
Shoulders			
Teeth			
Toes			
Tummy/belly			

Prepositions	"Touch the one that is __"	"Where's the _?"		"Touch the one that is __"	"Where's the _?"
Above			Into		
Around			Near		
At			Next to		
Behind			Of		
Below			Off		
Beside			On		
Between			Out		
By			Over		
For			Through		
From			To		
In			Under		
In front of			With		

Verifying Reliability

- Pre-select 3 items per domain to compare
  - Avoid selecting items that are well-beyond the student's competency level

- Simultaneously score the selected the items
  - Do not discuss or compare results

Verifying Reliability

- Upon completion of the reliability items, enter scores from both evaluators on the score sheet

- Use the formula to calculate agreement
  - **Agreement needs to be at 90% or higher**
  - If lower levels of agreement are found, check scoring criteria, discuss, re-train, and then re-check reliability by repeating this process

Early Level 1 Learner: Supplemental Assessments

• Approach behaviors/potential reinforcers

  – What does the child approach on his/her own?
  – What events or objects does he/she stay near, approach, manipulate, or accept from instructors?
  – How often is the child approaching adults?

Early Level 1 Learner: Approach Responses

Early Level 1 Learner: Supplemental Assessments

- Context-controlled responses
  - What does the child do in the presence of different items/events?
  - How many different items/events evoke specific responses?
  - Does the child respond to items/events in predictable ways?

- Variation of Motor Behaviors
  - Range of movements

Level 1 Learner: Context-Controlled Responses

Level 1 Learner: Variation of Motor Behaviors

Variation of Motor Behaviors Across Items

Item:	Movements/Responses:	
Block	Tap	
	Slide	
Item:	Movements/Responses:	
Glue Stick	Roll	
Item:	Movements/Responses:	

Approach and Context Controlled Responses Video

Level 2 & 3 Learner:
Supplemental Assessments

- Tact items
  - Assess first
  - Probe for generalization to listener response with a sample of "known" tacts

- Tact parts of items
  - "What part?"

Level 2 & 3 Learner:
Supplemental Assessments

- Respond to objects by feature, function, & class (FFC)
  - Tact: Put target picture/item in a large field and say
    - "Tell me the one that has ____" (feature)
    - "Tell me the one that you ____ " (function)
    - "Tell me the one that is a ____" (class)
  - Tact-reversal: Hold up a picture/object and say
    - "Tell me what a _____ has…" (feature)
    - "Tell me what you do with a ____" (function)
    - "Tell me what a ____ is" (class)
  - Intraverbal/ Intraverbal-reversal

Item	T	R	Feature	T	R	Respond by Feature LR	T	TR	IV	IVR	Respond by Function	LR	T	TR	IV	IVR	Respond by Class	LR	T	TR	IV	IVR
Boat			Sail								Floats on water						Vehicle					
			Mast								Go fishing on it											
			Bow								Take ride on it											
			Stern																			
Book			Pages								Read it						Find at library					
			Bind																			
			Cover																			
			Words																			
			Pictures																			
Bowl			Round								Put cereal/soup in						Find in kitchen					
Bread			White & brown								Toast it						Food					
			Crust								Eat it											
											Make sandwich with											
Broccoli			Green								Grows in garden						Food					
											Eat it						Vegetable					
											Cook it											
Broom			Handle								Sweep with											
			Bristles								Clean floors with it											
Brush			Handle								Brush hair with											
			Bristles																			
Butterfly			Wings								Flies						Insect					
			Antennae																			
Bucket			Has a handle								Holds sand in it											
											Play at the beach with it											
Cake			Sweet								Eat at birthday parties						Food					
			Frosting/icing								Bake it						Desert					
			Has candles																			
Calendar			Months								Hang on wall											
			Days								Tells you dates											
			Dates																			
Camera			Lens								Take pictures with						Electronic					
			Buttons																			
			Batteries																			
			Strap																			
Candy			Sweet								Eat it						Food					
			Sticky															Snack					
Can Opener			Blade								Open cans with it						Things in kitchen					
			handle																			

Level 2 & 3 Learner:
Supplemental Assessments

- Intraverbal subtest

  – In-depth assessment of intraverbal skills
  – 10 sets of questions that become more complex with each set
  – Assesses if the student can respond to multiple parts of a question without rote responding

Level 2 & 3 Learner:
Intraverbal Subtest Example

Group 6 (adjectives, prepositions, adverbs)		
What do you wear on your head?		
What do you eat with?		
What animal moves real slow?		
What's above a house?		
What do you write on?		
What's in a house?		
What are some hot things?		
What grows on your head?		
What is under a boat?		
Where do you eat?		
What's under a house?		
Other:		
Other:		
Total points (10 points maximum):		

Group 7 (Multiple part questions)	Score	Write the exact response given by the child
What makes you sad?		
What animal has a long neck?		
Tell me something that is not a food.		
What helps a flower grow?		
What is something you can't wear?		
What do you do with money?		
What number is between 6 and 8?		
What's in a balloon?		
What's your last name?		
What's something that is sticky?		
Other		
Other		
Total points (10 points maximum):		

INTERPRETING ASSESSMENT RESULTS

AVOID THIS COMMON MISTAKE!

- VB-MAPP is meant as a sequenced **programming guide.** It is not meant to be matched point-to-point with instructional programs.

  - Often must program for skills within broader VB-MAPP milestones (e.g., tact parts of items)

  - Often must program for a much wider range and number of exemplars than indicated on the VB-MAPP (e.g., >10 mands for items present; generalized responding)

  - Some milestones are difficult to directly teach (e.g., spontaneous imitations)

Interpreting the VB-MAPP for Programming

1. **Identify** the general skill level of the child

2. **Analyze** performance in each relevant skill area

3. **Select Instructional Programs** that are balanced across operants and at an appropriate instructional level

Identify Skill Level

In what VB-MAPP level do most skills lie?

Analyze Performance

- What response form will the student use?

Selection of Primary Response Form

- Analyze VB-MAPP performance in echoics

Vocal	Sign
Echoic skills in Level 2 (might require vocal shaping program)	Echoic skills in Level 1 (will require a vocal shaping program)

- Do not give up on sign language too soon!
  - How long were signs tried?
  - Did you require a signed response that was too difficult? (Sign shaping)
  - Were teaching procedures implemented correctly across all instructors?

Analyze Performance

- What are the student's known items?

  - Select prompts

Selecting Prompts Video

Selecting Prompts

- Rule of Thumb: Use known skills that can be reliably evoked and that share the same topography with target skill

	Sign	Vocal
Mand	Imitation/intraverbal (for sign)	echoic/tact
Tact	imitation	echoic
Echoic	NA	earlier established skills (EESA)
Intraverbal	signed tacts/imitation	tact/echoic
Listener Responding	Imitation/match to sample	imitation/tact/echoic/ match to sample

Analyze Performance

- Does the student have enough exemplars and range of exemplars in the previous milestones to begin programming at the first gap?
  - Ex: mand items present→ mand missing items

- Does the student have all of the skills between milestones to begin programming at the first gap?

Select Instructional Programs

- Program in manding when there is a skill deficit on the VB-MAPP
- Teach mands and tacts in imitation (sign) and/or echoic (vocal) programs
- Refer to the task analysis on VB-MAPP for program selection when necessary
- Build tact skills before programming intraverbal FFCs
- Balance programs across operants
- Select relevant targets

Selecting Mand Targets

- Preference assessments

- Items for which there is consistent motivation

- Things that will be needed by the student in his/ her day-to-day life

- Items in which the response form can be prompted and emitted with reasonable accuracy

Relevant Targets

- Are valuable

- Found in day-to day life

- Tie to general education curriculum & future programming

- Facilitate social initiations and interactions

- Promote independence

Blog:
http://www.pattan.net/category/Educational%20Initiatives/Autism/blog/What_should_I_teach_An_Introduction_to_Target_Selection.html

ORGANIZATION SYSTEMS

Core Data Sheets Video

Data Systems: Skill Tracking Sheet

- **Known items ("easies")** are developed directly from Scoring Supplement and written on Skill Tracking Sheets with date introduced and date mastered.

- **Target items ("hard items")** should be relevant to the student and written on Skill Tracking Sheets with date-introduced only.

- **Future targets** should be relevant to the student and are written on Skill Tracking Sheets with no date.

Skill Tracking Sheet

- A Skill Tracking Sheet should be developed for each active program.

| Student: | | Mastery Criteria: |

Skill Tracking Sheet

Skill: **Tacts for Common Items**

	Target	Date introduced	Date Mastered
1	Cup	3-2-09	3-5-09
2	Ball	3-3-09	3-6-09
3	Book	3-5-09	3-11-09
4	Chair	3-11-09	3-17-09
5	Shirt	3-17-09	
6	Spoon	3-17-09	
7	Table	3-17-09	
8	Shoes		
9	Bowl		
10	Pants		
11	Car		
12	Apple		
13			
14			
15			
16			
17			
18			
19			
20			

Data Systems: Cumulative Graph

- A cumulative graph helps instructors visually track student rate of progress.

- In cumulative graphing, increase the dot by the number of skilled **mastered** that day.

- Develop a cumulative graph for each active program.

Cumulative Graph

Cumulative Graph for Tact of Common Items
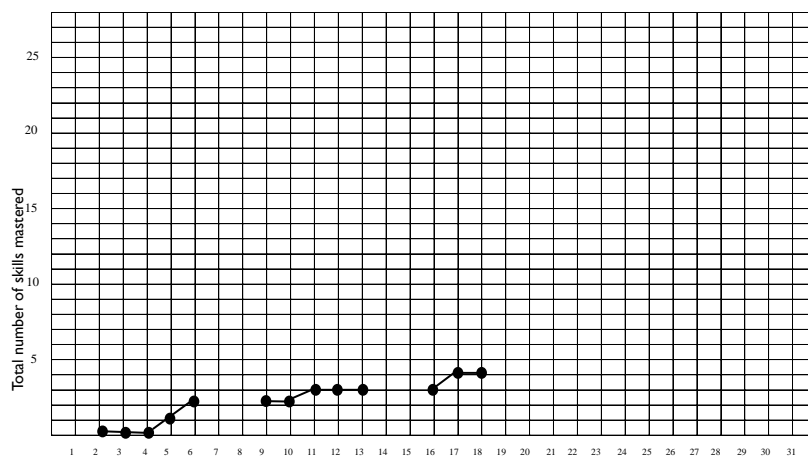
Student: _____   Month: _____

Data Systems: Cold Probe Sheet

- A place to take daily data on target skills.

	Name:				Week of:				
Weekly Probe Sheet									
	# days active	Operant	Target Skill	Previous Y	Mon	Tue	Wed	Thur	Fri
1		T	Shirt		Y N	Y N	Y N	Y N	Y N
2		T	Ball		Y N	Y N	Y N	Y N	Y N
3		T	Table		Y N	Y N	Y N	Y N	Y N
4					Y N	Y N	Y N	Y N	Y N
5					Y N	Y N	Y N	Y N	Y N
6					Y N	Y N	Y N	Y N	Y N
7					Y N	Y N	Y N	Y N	Y N
8					Y N	Y N	Y N	Y N	Y N
9					Y N	Y N	Y N	Y N	Y N
10					Y N	Y N	Y N	Y N	Y N
11					Y N	Y N	Y N	Y N	Y N
12					Y N	Y N	Y N	Y N	Y N
13					Y N	Y N	Y N	Y N	Y N
14					Y N	Y N	Y N	Y N	Y N
15					Y N	Y N	Y N	Y N	Y N
16					Y N	Y N	Y N	Y N	Y N
17					Y N	Y N	Y N	Y N	Y N
18					Y N	Y N	Y N	Y N	Y N
19					Y N	Y N	Y N	Y N	Y N
20					Y N	Y N	Y N	Y N	Y N
21					Y N	Y N	Y N	Y N	Y N
22					Y N	Y N	Y N	Y N	Y N
23					Y N	Y N	Y N	Y N	Y N
24					Y N	Y N	Y N	Y N	Y N
25					Y N	Y N	Y N	Y N	Y N
26					Y N	Y N	Y N	Y N	Y N
27					Y N	Y N	Y N	Y N	Y N
28					Y N	Y N	Y N	Y N	Y N
29					Y N	Y N	Y N	Y N	Y N
30					Y N	Y N	Y N	Y N	Y N
31					Y N	Y N	Y N	Y N	Y N
32					Y N	Y N	Y N	Y N	Y N
33					Y N	Y N	Y N	Y N	Y N
34					Y N	Y N	Y N	Y N	Y N
35					Y N	Y N	Y N	Y N	Y N

Red: receptive ID Green: Tact Yellow: Echoic Purple: Motor Imitation Blue: Intraverbal

Criteria for mastery: _____ consecutive yes*

If program change made, indicate by drawing a phase change line on the corresponding date of the applicable target.

Notes/Reminders:

Card Sort System Video

Card Sort System

3x5 cards

- Motor imitations
- Echoics
- Intraverbals
- Tacts that do not involve pictures (e.g., body parts, actions)
- LRs that do not involve pictures (e.g., body parts, directions)

Picture Cards

- Tact pictures
- LR pictures

Card Sort System

Card Sort System: "Knowns" Bins

Early Learners: Object Sort System

- Early learners must typically be taught context-controlled responses using objects rather than pictures
- Context-controlled response examples:
  - LR "Put in:" give student item with only a container on the table
  - LR "Give:" student holding item and teacher presents hand out
  - LR "Take:" teacher holds item out to student
  - "Do this:" teacher models putting item in container

Early Learner: Object Sort Poster Examples

Straw	Ball	Spoon	Crayon	Sponge
"do this" (put in cup or bowl or basket)	"Do this" Rolling ball	"do this" (put in basket)	"do this" (move here to there)	"do this" (put in basket)
"do this" (tap on desk)	"Do this" put in cup	"do this" (tap on desk)	"do this" (put in cup)	"do this" (tap on desk)
"do this" (slide on desk)	"Do this" pick up	"do this" (slide on desk)	"do this" (tap on desk)	"do this" (slide on desk)
"do this" (pick up)	"Do this" take	"do this" (pick up)	"do this" (pick up)	"do this" (pick up)
"do this" (put on book)	"Do this" touch	"do this" (touch)	"do this" (touch)	"do this" (put on book)
"do this" (touch)	"tap" (on desk)	"do this" (put on bowl)	"do this" (put on book)	"do this" (touch)
"do this" (put on book)	"touch"	"do this"(tap on cup)	"do this"(tap on cup)	"put in" (cup or bowl)
"do this"(tap on cup)	"give"	"do this" (move here to there)	"do this" (move here to there)	"put on" (book)
"do this" (move here to there)	"take"	"give"	"give"	"give"
"put in" (cup)	"put on" (book or cup)	"touch"	"touch"	"touch"
"touch"	"pick up"	"take"	"take"	"take"
"give"	"put in" (bowl)	"pick up"	"pick up"	"pick up"
"take"	"Match Ball"	"put in" (cup or bowl)	"put in" (cup or bowl)	* "Match Sponge"
"pick up"		"tap"(on desk)	"tap"(on desk)	
"tap"		"Match Spoon"	"Match Crayon"	
"Match Straw"				

Early Learner: Object Sort Bins

GENERAL PROGRAMMING CONSIDERATIONS

Imitation Programming Considerations

- Schedule adequate opportunities for imitation trials
- Sequence actions to be imitated carefully
- Plan to fade prompts
- Be sure imitative discrimination is taught
- Consistently use error correction procedures
- Provide sufficient training to establish generalized imitation repertoire
- Teach imitation to fluency
- Require clean responding (but keep in mind shaping process)
- Teach until student develops generalized and fluent imitation

Tact Programming Considerations

- Be sure student can tact objects if you move to pictures
- Teach many tacts (thousands)
- Teach sufficient exemplars for tact targets: be sure students can tact items in the natural environment
- Provide sufficient tact training opportunities
- Sequence tact instruction carefully: do not stop at tacting objects; teach tacts for actions, multiple component tacts, etc.
- Be sure controlling variables are right (that what you think is a tact is really a tact and not a mand, or in the case of prompt dependency, an echoic)

LR Programming Considerations

- See tact programming considerations

- LR discrimination: be sure you are not putting targets in the same physical location on the table

- LR discrimination: move to **messy arrays** as soon as possible

- Watch out for accidental cues! (looking at the picture for LR discriminations; accidentally modeling the action for "known" skills)

Intraverbal Programming Considerations

- DON'T START TOO EARLY! Student needs a strong tact repertoire prior to intraverbal FFC training
  – Tact items, actions, parts/features, class
- Sequence instruction carefully: start with "fun fill-ins" and personal information
- Be sure the student can respond to all of the components of a question individually as a tact. No rote responding!
  – Example: "What flies in the sky?"—tact "flying" across many items; tact many examples of "sky;" tact many things that fly

POSTTEST

Posttest: True or False?

- The VB-MAPP is a curriculum.

Posttest: True or False?

- It is recommended to always administer the VB-MAPP assessment from the "bottom-up" (earlier milestones to later milestones).

Posttest: True or False?

- It is important to record specific student responses when administering the VB-MAPP.

Posttest: True or False?

- You should use the VB-MAPP milestones to determine when to move on to the next program.

Thank You for Your Participation!

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