The VB-MAPP: Conducting the Assessment and Identifying Intervention Priorities

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### The Importance of Assessment

- Assessment (analysis) drives the intervention
- An initial assessment provides a baseline (operant skill level)
- On-going assessment provides tracking and outcome data
- On-going assessment can guide program adjustments
- The failure to conduct an adequate assessment can result in an **inappropriate and ineffective curriculum** for a child, as well as a waste of valuable teaching time and resources

# What Should be Assessed for Children with Autism?

- It is essential to identify a child's existing verbal, nonverbal, and social skills (e.g., mands, echoics, listener skills, peer initiation)
- It is also essential to identify the language, social, behavioral, and learning barriers that are preventing or slowing down skill acquisition
- Most common language assessment tools for children with autism fail to provide this necessary information (Esch, LaLonde, & Esch, 2010)
- For example, 28 out of 30 assessments fail to assess a child's mand repertoire (Esch et al, 2010), and none provide an assessment of possible barriers

# The Value of a Criterion-Referenced Assessment

- · Norm-referenced vs. criterion-referenced
- A norm-referenced tests ranks and sorts students using percentile measures relative to a large sample of peers (e.g., IQ tests, SAT, PPVT, "Bell curve")
- A criterion-referenced test provides a measure of a student's mastery of a pre-determined group of skills (e.g., math skills)
- A criterion-referenced test provides specific information as to what a student (or professional) can or cannot do in a certain domain (e.g., manding, national board medical exam, BACB exam)
- A criterion-referenced assessment provides the operant level (baseline) of a domain of skills **for an individual learner**, and can directly point to intervention needs and priorities

## A Behavioral Approach to Assessment for Children with Autism

- Basic behavioral concepts and principles allow professionals to identify and quantify learning, as well as barriers (e.g., motivation, reinforcement, stimulus control, generalization)
- A behavioral analysis of typical human development provides a frame of reference for an assessment (e.g., Bijou & Baer, 1965; Schlinger, 1996; Novak & Pelaez, 2003; Skinner, 1957)
- Skinner's (1957) analysis of verbal behavior provides a behavioral framework of language and social behavior that can be used to guide an intervention program (Sundberg & Michael, 2001)

## The Value of Skinner's Analysis of Language

- Expands and clearly delineates the traditional categories of expressive and receptive language
- "Expressive language" is expanded across the verbal operants
- echoic (motor imitation, copying-a-text)
- mand
- tact
- intraverbal
- textual
- transcriptive
- "Receptive language" is expanded to four distinct repertoires
- listener discriminations (receptive language)
- audience participation
- mediator of reinforcement
- emotional responder

# Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP

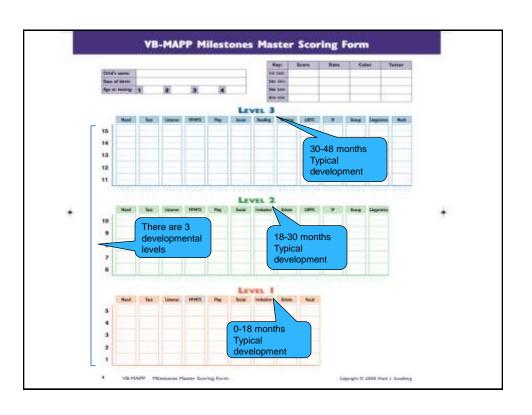
- There are five components of the VB-MAPP
- The **VB-MAPP: Milestones Assessment** measures 16 domains with 170 language, learning, and social milestones, across 3 developmental levels (0-18 months, 18-30 months, 30-48 months)
- The **VB MAPP: Barriers Assessment** examines 24 common learning and language barriers often faced by children with autism
- The VB MAPP: Transition Assessment is a summary assessment of 18 domains and can serve as a guide for planning a child's educational needs

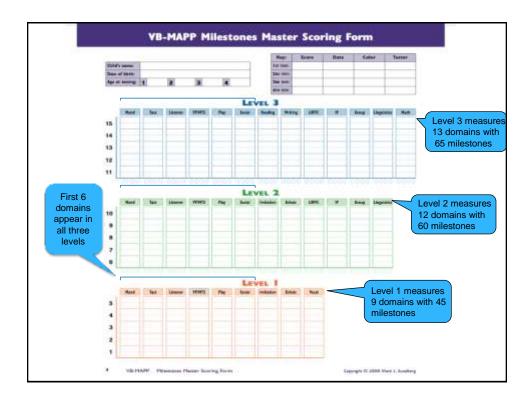
# Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP

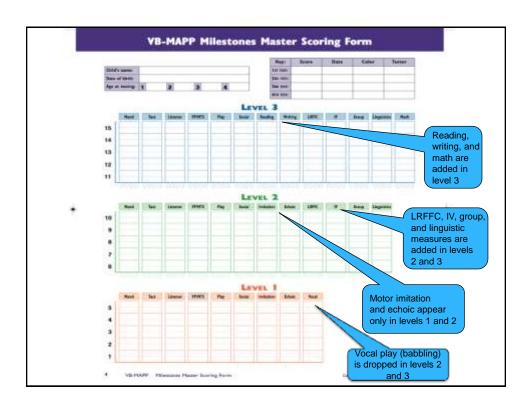
- The VB-MAPP: Supporting Skills and Task Analysis provides a checklist of hundreds of additional skills that may not warrant milestone status, but support the development of each of the domains (e.g., mands for attention, tacts of auditory stimuli)
- In addition, this section contains a task analysis of the 170 milestones, which is valuable for those progressing at a slower rate
- The VB-MAPP: Placement and IEP Goals provides recommendations for program development based on the child's VB-MAPP profile, and his specific scores on the 170 milestones and the 24 Barriers
- Also contains a bank of over 200 IEP objectives directly linked to the milestones and barriers assessments

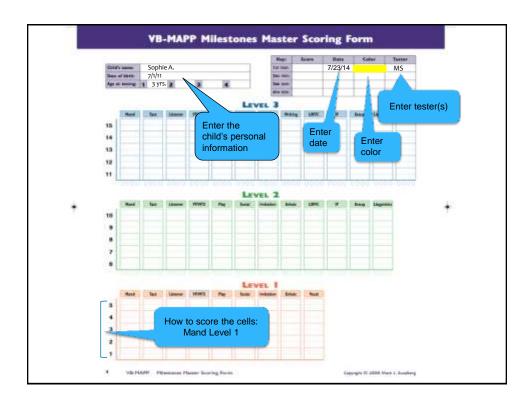
## The VB-MAPP Milestones: How to Score the Assessment

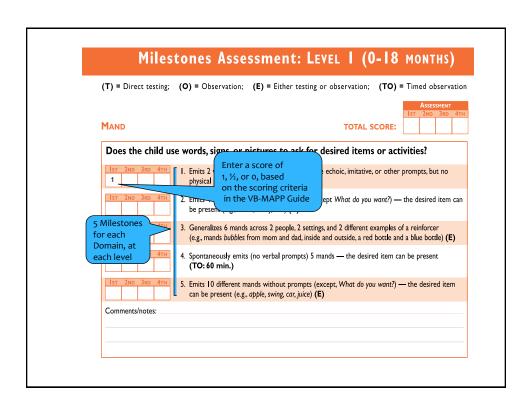
- 16 domains are presented in three developmental levels:
- The elementary verbal operants (e.g., echoic, mand, tact, intraverbal)
- The listener skills
- Vocal output
- Independent play
- Social skills and social play
- Visual perceptual skills and matching-to-sample
- Grammatical and syntactical skills
- Group and classroom skills
- Beginning academic skills



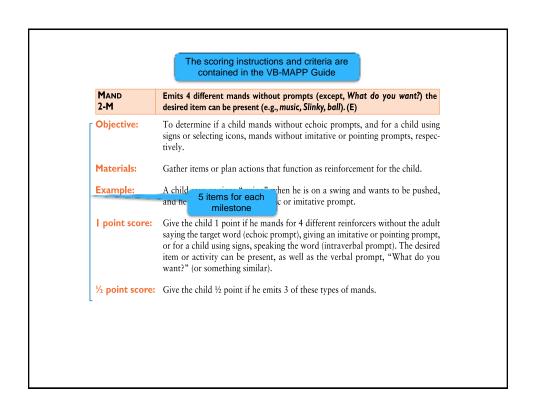


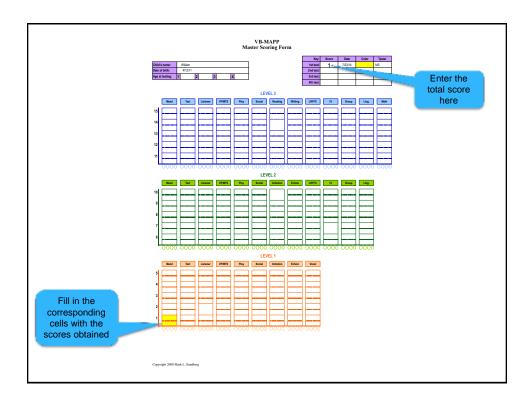


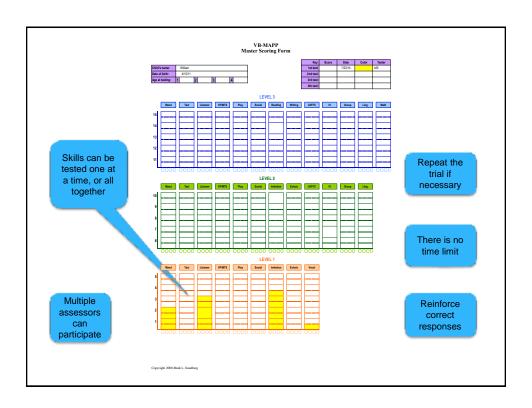


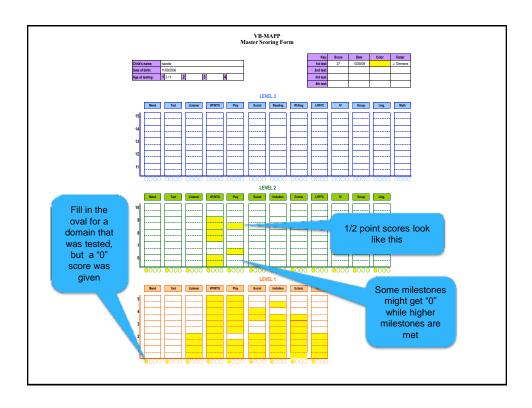


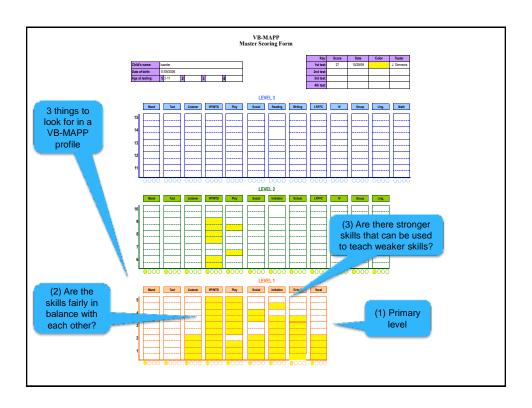
	Miles	tones Assessment: LEVEL   (0-18 MONTHS)					
	(T) = Direct testing;	(O) = Observation; (E) = Either testing or observation; (TO) = Timed observation					
Designed for 4 testing periods, but more can be added	Mand	4 ways to obtain the relevant data  TOTAL SCORE:  ASSESSMENT 1ST 2NO 3RD 4TH 41/2					
	Does the child use words, signs, or pictures to ask for desired is or activities?						
	IST 2ND 3RD 4TH	I. Emits 2 words, signs, or PECS, but ma physical prompts (e.g., cracker, book) Score here					
	IST 2ND 3RD 4TH	2. Emits 4 different mands without prombe present (e.g., music, slinky, ball) (T) — the desired item can					
	IST ND 3RD 4TH	<ol> <li>Generalizes 6 mands across 2 people, 2 settings, and 2 different examples of a reinforcer (e.g., mands bubbles from mom and dad, inside and outside, a red bottle and a blue bottle) (E)</li> </ol>					
	1 3rd 4th	4. Spontaneously emits (no verbal prompts) 5 mands — the desired item can be present (TO: 60 min.)					
	1/2   3RD 4TH	5. Emits 10 different mands without prompts (except, What do you want?) — the desired item can be present (e.g., apple, swing, car, juice) (E)					
	Comments/notes:	Add any relevant information such as specific words, or oddities such as all 10 mands are for different toy dinosaurs					



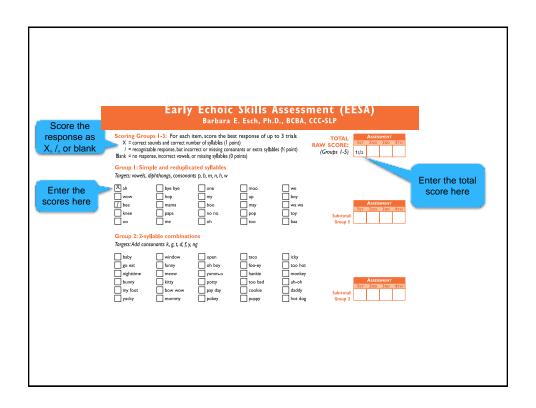


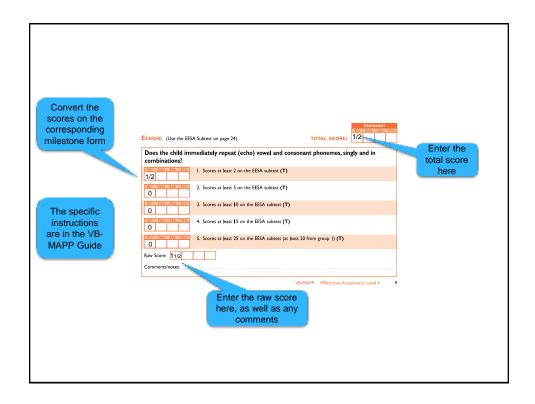


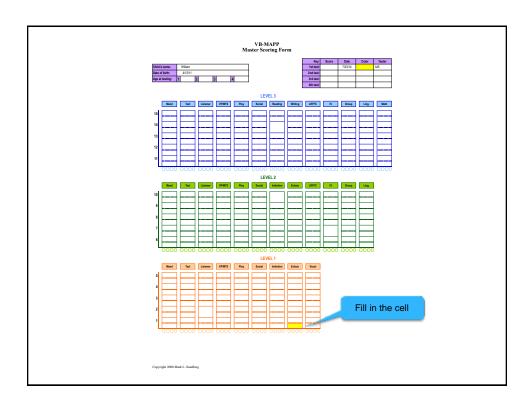




	Early			Assessme D., BCBA, CCC	nt (EESA)	
There are 5 levels and 100 possible points	B are 5  Scoring Groups I-3: For each item, score the best response of up to 3 trials  X = correct conds and correct number of spillules (1 pixel)  Assessment  RAM SCORE: Let be Job Job Life  RAM SCORE: Let be Job Job Life  AND SCORE: Let be Job Life  AND SCORE:					
The sounds are developmentally sequenced	Targets: vowels, diphthongs, contona    sh	one my boo no no no oh	moo up may pop too	we boy wa wa toy baa	ASSESSMENT  Sub-total  Group 1	
The first three levels differ by the number of syllables	buby window  go eat funny nighttime meow bunny my foot bow wow yocky mommy  Group 3:3-syllable combinate	open oh boy yumm-o potty pay day pokey	taco foo-ey hankie too bad cookie puppy	too hot monkey uh-oh daddy hot dog	ASSESSMENT   SIT   200   300   611	
The last two involve prosody and other measures	tubby toy potato banana go bye bye fee fi foe fa toggy yummy food goofy goat daddy up hey me too in a boat my big toe	do high five oh foo-ey binky boo one cookie open up peanut hat	tiny pan peek a boo teddy bear doggy bone funny king a hiccup	how many potty time glddy-up wet mitten teepee boat puppet game	ASSESSMENT	
measures	Group 4: Proceedy, appearse (Model Emphasize syllables in bold Italifes) X = emphasic on correct sylabel (j. poster) - emphasic on nowary part of journey - emphasic on nowary part publish (j. poster) Bask = noncorrect propert (p. onephasic) (j. poster) Acceptance					
	no WAY ONE bunny BOO UH-oh  Group 5: Prosody: other cont X = response correct or nearly so Blank = response does not closely mat	(I point)	TAKE it	☐ my MOM-my ☐ BUG-a-boo	Sub-total Group 4	
Picch     Edone path variation is 1-2 lines of a fundar sense   Edones continuous workle (fire truck 0.00=e.000=e.00)   Local Indiagram   Edone quiet floods sloce (beyler n. 8 YEA/YE)     Edones whitegering   Edone quiet floods sloce (beyler n. 8 YEA/YE)     Addressment						
	Duration   Susains oth for 3 seconds, echoically  24 The VB-MAPP Early Echoic Sulls Assessment (EESA)				Sub-total Group 5  Copyright © 2008 Borbara E. Esch	
	2. Strat Early Color		,			







#### 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 be aware of the problems and challenges he or she faces
- The VB-MAPP Barriers Assessment is designed to identify and score 24 different learning and language acquisition barriers
- Many of these barriers are identified in the DSM-5 (inflexible routines, repetitive behaviors, deficits in social communication, sensory defensiveness, fixated interests)
- Once a specific barrier has been identified, a more detailed descriptive and/or functional analysis of that problem is required
- An **individualized functional or descriptive analysis** will be necessary to determine the nature of the problem, and what intervention program might be appropriate for the child

#### The VB-MAPP Barriers Assessment

- There are several different types of barriers that can affect learning and language development
- Strong and persistent **negative behaviors** that impede teaching and learning (e.g., non-compliance, tantrums, aggression, SIB)
- **Verbal operants** or related skills that are absent, weak, or in some way impaired (e.g., echolalia, rote intraverbals, "mands" that are really tacts)
- **Social behavior** and the speaker-listener dyad can also become impaired for a variety of reasons (e.g., limited motivation for social interaction, impaired mands, impaired listener skills)

#### The VB-MAPP Barriers Assessment

- **Fundamental barriers to learning** that must be analyzed and ameliorated (e.g., the failure to generalize, weak motivators, prompt dependency)
- **Specific behaviors** that can compete with teaching (e.g., self-stimulation, hyperactive behavior, or sensory defensiveness)
- Problems related to **physical, medical, or biological barriers** that must be accounted for in some way (e.g., articulation or motor imitation errors may be due to physical limitations, matching errors may be due to visual limitations, listener errors may be related to hearing problems, poor performance may be due to illness, sleep deprivation, severe allergies, medication changes, pain, etc.)

#### The VB-MAPP Barriers Assessment

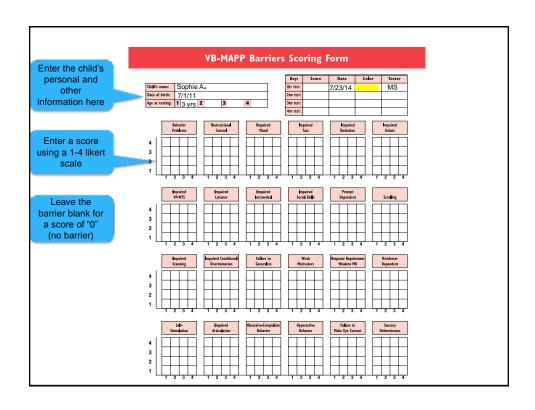
- 24 Common Learning and Language Acquisition Barriers
- Behavior problems
- Instructional control (escape/avoidance)
- Impaired mand
- Impaired tact
- Impaired motor imitation
- Impaired echoic (e.g., echolalia)
- Impaired matching-to-sample
- Impaired listener repertoires (e.g., LD, LRFFC)

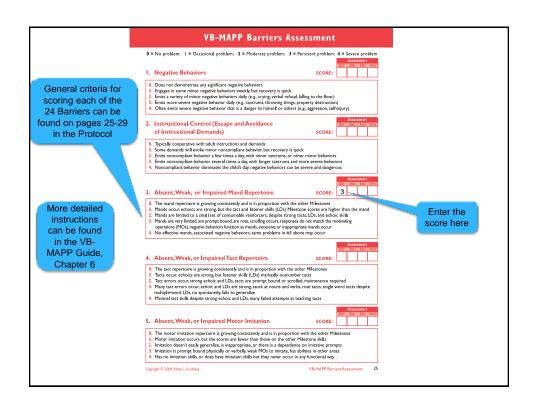
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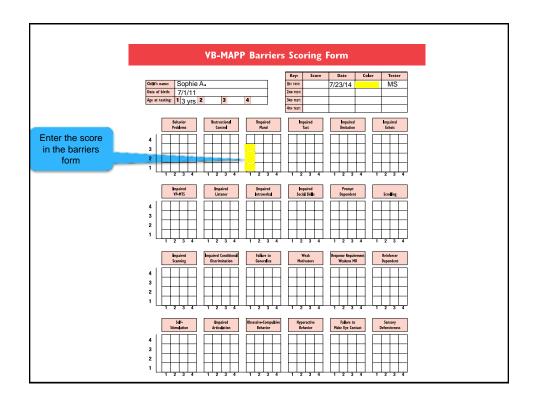
- Common Learning and Language Acquisition Barriers
- Impaired intraverbal
- Impaired social skills
- Prompt dependency, long latencies
- Scrolling responses
- Impaired scanning skills
- Failure to make conditional discriminations (CDs)
- Failure to generalize
- Weak or atypical MOs

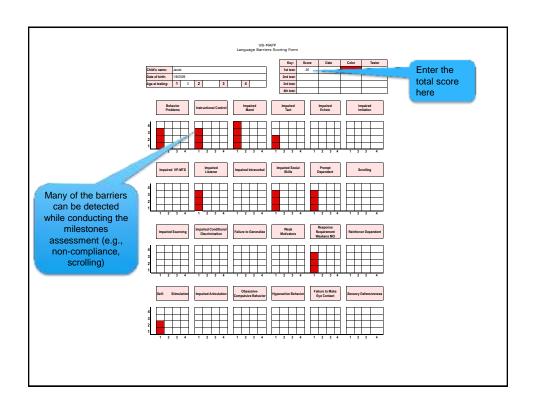
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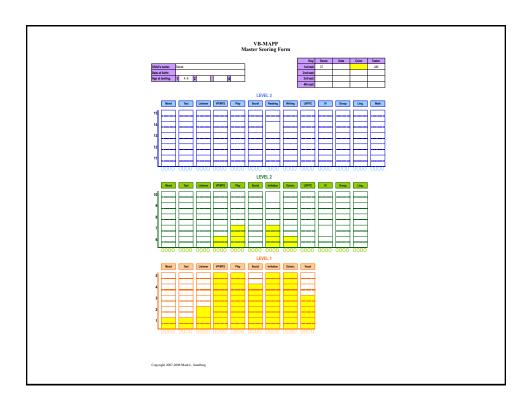
- Common Learning and Language Acquisition Barriers
- Response requirements weakens the MO
- Reinforcer dependent
- Self-stimulation
- Articulation problems
- Obsessive-compulsive behavior
- Hyperactivity
- Failure to make eye contact
- Sensory defensiveness

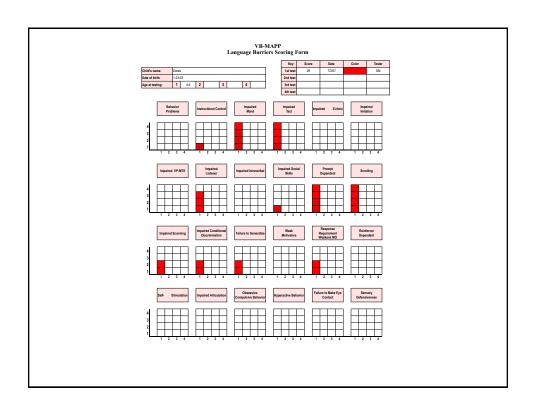


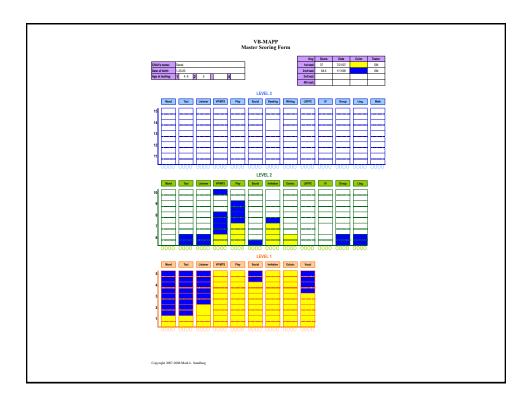


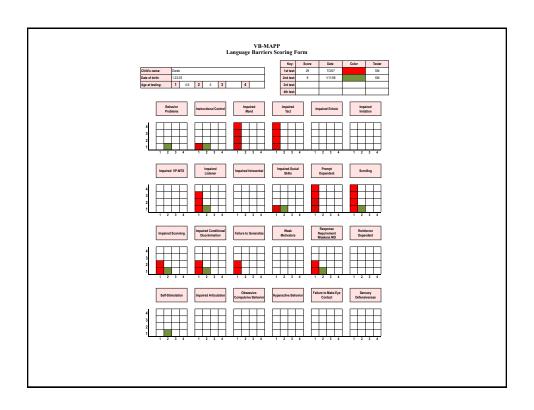






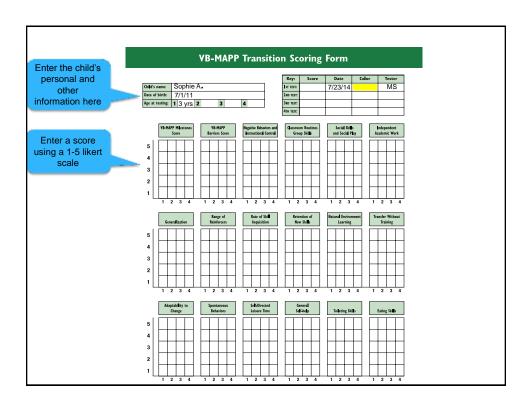




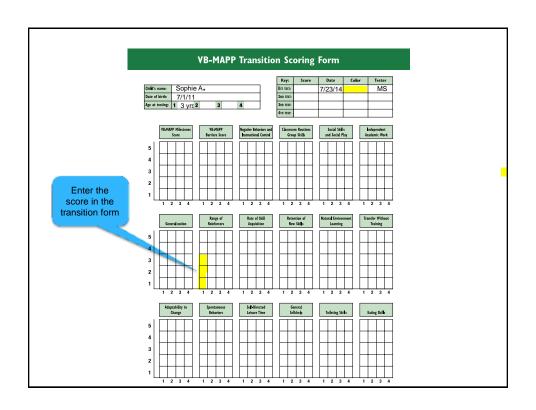


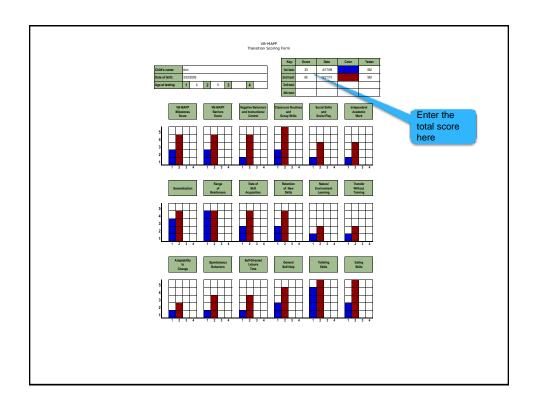
#### The VB-MAPP Transition Assessment

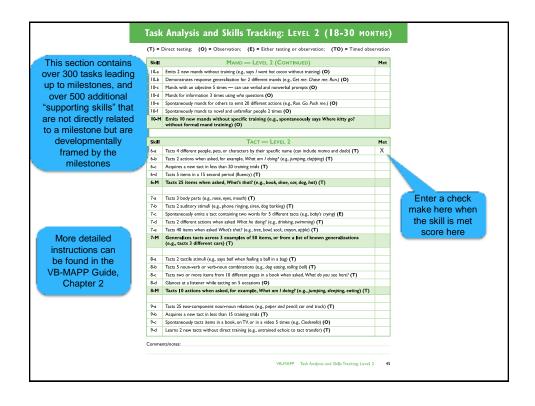
- A common goal for many educators and parents of children with special needs is to integrate the child into a mainstream setting
- There are many different levels of integration and the Transition Assessment was designed to identify the skills that increase the probability that a child will be successful in a less restrictive setting
- No single skill will be a good determiner of success, but a collective body of skills can help educators and parents make decisions
- The VB-MAPP Transition Assessment provides a tool to help determine if a child has the necessary prerequisite skills to learn in a less restrictive classroom environment
- There are 18 skill areas on the Transition Assessment

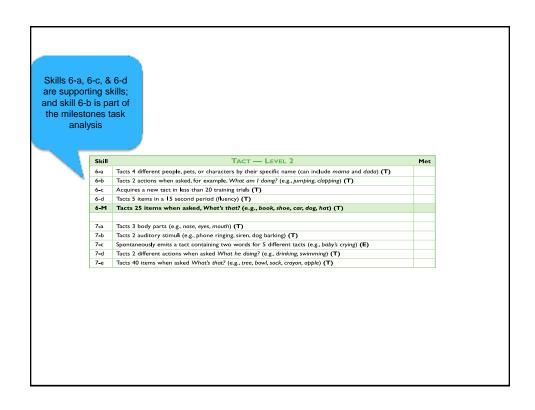


	VB-MAPP Transition Assessment						
'	Rate the Child on a Scale of I to 5 for Each Area						
	6. Works Independently on Academic Tasks SCORE:						
General criteria for scoring each of the 18 transition items can be found on pages 31-34 in the Protocol	Works independently on academic tasks for at least 30 seconds with no more than I adult prompt     Works independently on academic tasks for at least. Inhurse with no more than I adult prompt     Works independently on academic tasks for at least. Inhurse without adult prompting to stup on task     Works independently on academic tasks for at least 5 minutes without adult prompting to stup on task     Works independently on academic tasks for at least 5 minutes without adult prompting to stup on task     Works independently on academic tasks for at least 10 minutes without adult prompting to stay on task						
	7. Generalization of Skills Across Time, Settings, Behaviors, Materials, and People SCORE:  Assessment 1s 200 100 101 SCORE:  Behaviors Materials and People SCORE:						
	Generalizes a few new skills to different people and across time, but not easily across materials     Generalize to new materials, but only after exestive generalization (multiple exemplar) training     Demonstrates spontaneous stimulus generalization in the natural environment on IO occasions     Demonstrates spontaneous response generalization in the natural environment on IO occasions     Consistently demonstrates both stimulus and response generalization on the first or second trial						
	8. Range of Items and Events that Function as Reinforcers SCORE:						
More detailed instructions can be found in the VB-	Reinforcers are frequent and mainly edibles. Iliquids, and physical contact (unlearned motivators)     Reinforcers are tangells, essency, or manipulative such as tops, cause-and-effect objects, music, dolls     Reinforcers are social (e.g., attention), peer mediated (e.g., games), related to specific places (e.g., parks, stores), and less frequentii it is these learned reinforcers that are mainly used for teaching     Reinforcers are intermitteets, social, automatic, and involve a wider range of items and activities     Reinforcers are intermitteets, social, age approprise, varied, and involve verbal information and change frequently						
MAPP Guide, Chapter 7	9. Rate of Acquisition of New Skills SCORE:						
	Typically requires two or more weeks of training sessions and hundreds of trails to acquire a new skill     Requires at least one week of training sessions and 100 or more trails to acquire a new target skill     Acquires several new target skills a week averaging less than 50 training trails     Consistently acquires new target skills a week averaging less than 50 training trails     Consistently acquires new target skills always averaging less than 50 training trails     Consistently acquires new target skills daily averaging 5 trails or less						
	10. Retention of New Skills SCORE:						
	Retains a new skill for at least 10 minutes after it has been scored as correct in a teaching session Retains a new skill for at least 1 hour after it has been scored as correct in a teaching session Retains a new skill for 24 hours after it has been scored as correct with 5 or less maintenance trials Retains acquired skills for 24 hours after it has been scored as correct with 5 or less maintenance trials Typically retains acquired skills for at least 1 week without maintenance trials						
	32 VB-MAPP Transition Assessment						







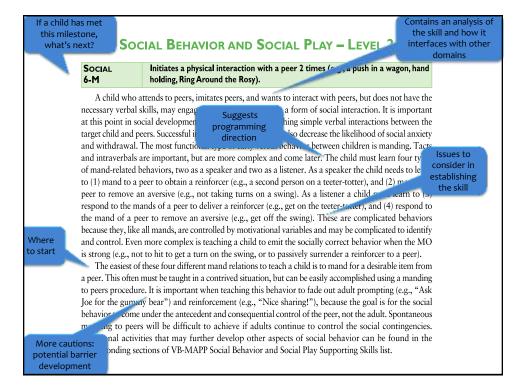






#### The VB-MAPP Placement and IEP Goals

- The placement section (VB-MAPP Guide, chapters 8-10) contains an interpretation and suggestions for programming for all 170 milestones
- It also contains over 200 template IEP goals covering all 170 milestones

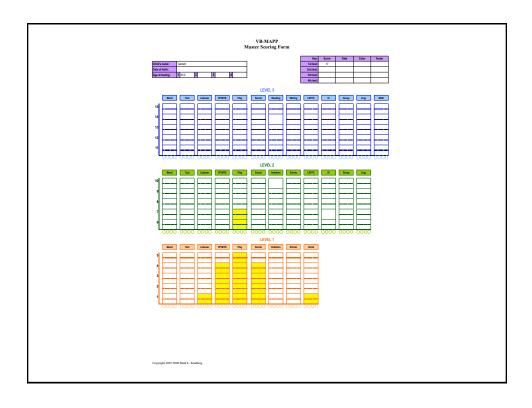


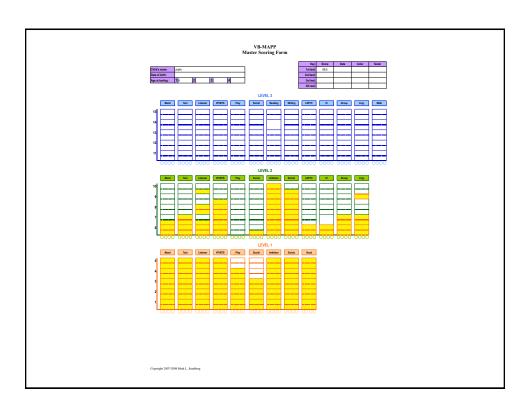
A bank of possible IEP goals are provided for each group of 5 milestones

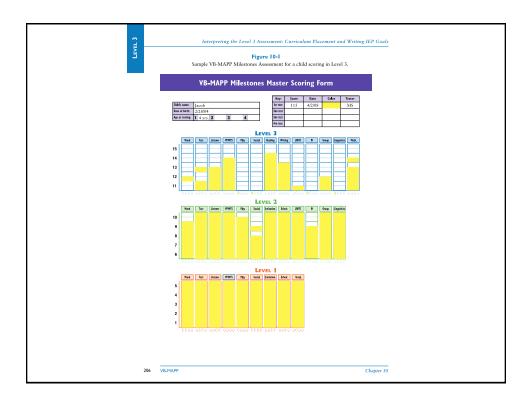
Suggested IEP Goals for Social Behavior and Social Play: Level 2 (select only 1 or 2 goals and modify them as appropriate for the individual child).

- The child will spontaneously mand to peers at least 25 times per day.
- The child will spontaneously respond to the mands from peers 25 times in a single day.
- The child will engage in cooperative, constructive, or physical play activities with peers lasting at least 5 minutes.
- The child will spontaneously mand to peers using questions, directions, instructions, etc. (e.g., "What's that?" "Where is your lunch?" "Come on, get your bike") at least an average of 25 times per day.
- The child will take turns and share reinforcers with peers without prompts at least 5 times in a day.

All 200 IEP goals can be downloaded in one Word file at www.avbpress.com/downloads







## Conclusions

- Behavior analysis has much to offer autism assessment and treatment
- Skinner's analysis of verbal behavior is a powerful tool
- Assessment is essential for an effective and efficient intervention program
- The VB-MAPP can provide important direction for any style of intervention program

## Conclusions

- Skinner (1978) stated
- "Verbal Behavior...will, I believe, prove to be my most important work" (p. 122)