

Strategies to Increase Beginner Classroom Participation Skills:

Decreasing Problem Behavior with an FBA: The Assessment



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Three Objectives Today

Upon completion of ***Decreasing Problem Behavior: How to Begin*** participants will:

- Identify the need for a behavior reduction plan and construct a behavioral definition
- Complete a functional behavioral assessment (indirect and direct assessments and functional analysis)
- Identify the various reinforcing variables that maintain challenging behavior and how to successfully implement neutral redirection



First, What is a Problem Behavior?

Hanley, Iwata, & McCord (2003) define

“problem behaviors” as

Behavioral excesses that are socially significant,

- Affect others and the surrounding environment
- Typically of sufficient intensity or frequency that the safety of the person engaging in the behavior or others around is threatened
- Hinder the ability of the person or others to acquire new skills
- Lead to restrictive living arrangements



Review of Behavior

Motivation **A**ntecedent → **B**ehavior ← **C**onsequence

What happens well before the behavior occurs

What happens right before the behavior occurs

The target behavior of interest

What happens right after the behavior occurs

How to Select Behaviors for Reduction

- Does this behavior present as a **danger** to the person or to others?
- How often does this behavior occur?
- Will changing this behavior reduce negative or unwanted attention from others?
- Will changing this behavior provide more learning opportunities?
- How likely is the behavior to change?
- How much will it cost to change this behavior?



More Than **One** Problem Behavior

Prioritize:

1. Which one is the **most intrusive**?

- Impacting learning opportunities
- Decreases reinforcement opportunities

1. Which one happens more often?

2. Which one can we work on first to get an immediate change?



Functions vs. Topography

“The topography of a behavior often reveals little useful information about the conditions that account for it. Identifying the conditions that account for a behavior, on the other hand, suggests what conditions need to be altered to change the behavior.”

Cooper, Heron, & Heward, 2007



Defining the Problem Behavior

- Objective, observable, measurable, & without emotion
- Complete, so that anyone knows what the behavior is and what it is not

Observer is not guessing during the observation

- **Function:** define the behavior by the purpose that it serves

Hitting and spitting both to get out of a demand

- **Topography:** define the behavior by what it looks like

Hitting: striking another person with an open or closed fist, not tapping or gently placing a hand on another



Functional Behavioral Assessment

- **“Functional Behavioral Assessment”** (FBA) enables a hypothesis about the relations among specific types of environmental events and behaviors.
- An FBA is designed to obtain information about the purpose of the target behavior (the function a behavior serves for a person).”

Cooper, Heron, & Heward, 2007



Why do we behave the way we do?

To get something: **Positive Reinforcement**

- Social Positive Reinforcement (Attention)
- Tangible Reinforcement
- Automatic Positive Reinforcement

To get out of something: **Negative Reinforcement**

- Social Negative Reinforcement (Escape/Avoidance)
- Automatic Negative Reinforcement



Three Components of Functional Behavioral Assessment

- Indirect Assessments
- Descriptive Assessments
- Functional (**Experimental**) Analysis



Indirect Assessments

- **Motivation Assessment Scale (MAS)**

(Durand & Crimmins, 1992)

- A questionnaire that is designed to identify the maintaining the environmental variables that control the frequency of the target behavior

Provides a Likert scale to determine the frequency in the different conditions

- Behavioral functions that are assessed:
Sensory, Escape, Attention, Tangible

MAS

Motivation Assessment Scale

1986 V. Mark Durand, Ph.D.

Name _____ Rater _____

Date _____

Behavior Description

Setting Description

Instructions: The Motivation Assessment Scale is a questionnaire designed to identify those situations in which an individual is likely to behavior in certain ways. From this information, more informed decisions can be made concerning the selection of appropriate reinforcers and treatments. To complete the MAS, select one behavior that is of particular interest. It is important that you identify the behavior very specifically. "Aggressive", for example, is not as good a description as "hits his sister". Once you have specified the behavior to be rated, read each question carefully and circle the one number that best describes your observations of this behavior.

0=Never, 1=Almost Never, 2=Seldom, 3=Half the Time, 4=Usually,

5=Almost Always, 6=Always

Questions	Answers
1. Would the behavior occur continuously, over and over, if this person were left alone for long periods of time? (For example, several hours)	0 1 2 3 4 5 6
2. Does the behavior occur following a request to perform a difficult task?	0 1 2 3 4 5 6
3. Does the behavior seem to occur in response to you talking to other persons in the room?	0 1 2 3 4 5 6
4. Does the behavior ever occur to get a toy, food, or activity that this person has been told that he or she can't have?	0 1 2 3 4 5 6
5. Would the behavior occur repeatedly, in the same way, for very long periods of time, if no one were around? (For example, rocking back and forth for over an hour.)	0 1 2 3 4 5 6
6. Does the behavior occur when any request is made of this person?	0 1 2 3 4 5 6
7. Does the behavior occur whenever you stop attending to this person?	0 1 2 3 4 5 6
8. Does the behavior occur when you take away a favorite toy, food, or activity?	0 1 2 3 4 5 6
9. Does it appear to you that this person enjoys performing the behavior? (It feels, tastes, looks, smells, and/or sounds pleasing.)	0 1 2 3 4 5 6
10. Does this person seem to do the behavior to upset or annoy you when you are trying to get him or her to do what you ask?	0 1 2 3 4 5 6
11. Does this person seem to do the behavior to upset or annoy you when you are not paying attention to him or her? (For example, if you are sitting in a separate room, interacting with another person.)	0 1 2 3 4 5 6
12. Does the behavior stop occurring shortly after you give this person the toy, food, or activity he or she has requested?	0 1 2 3 4 5 6
13. When the behavior is occurring, does this person seem calm and unaware of anything else going on around him or her?	0 1 2 3 4 5 6
14. Does the behavior stop occurring shortly after (one to five minutes) you stop working or making demands of this person?	0 1 2 3 4 5 6
15. Does this person seem to do the behavior to get you to spend some time with him or her?	0 1 2 3 4 5 6
16. Does the behavior seem to occur when this person has been told that he or she can't do something he or she had wanted to do?	0 1 2 3 4 5 6

MAS

	Sensory	Escape	Attention	Tangible
1. _____	2. _____	3. _____	4. _____	
5. _____	6. _____	7. _____	8. _____	
9. _____	10. _____	11. _____	12. _____	
13. _____	14. _____	15. _____	16. _____	
Total Score =	_____	_____	_____	_____
Mean Score = <i>(divide the total score by 4)</i>	_____	_____	_____	_____
Relative Ranking <i>(high score to low score)</i>	_____	_____	_____	_____

If there is a tie for the highest score or if the means of the top two categories are within .25 to .50 points (and you have clearly specified the behaviour and setting), then both are considered as influences that may be causing the problem behaviour to continue.



Indirect Assessments

- **Functional Analysis Screening Tool (FAST)**
(Iwata & DeLeon, 1996)
- Scale that identifies the environmental factors that influence problem behavior
- Also provide a narrative survey for the interviewee to provide additional information
Situations in which the behavior is most likely and least likely to occur, antecedent identification
- Behavioral functions that are assessed:
Attention/Preferred Items, Escape, Sensory Stimulation & Pain Attenuation

FAST

Functional Analysis Screening Tool

Client: _____ Date: _____

Informant: _____ Interviewer: _____

To the Interviewer: The FAST identifies environmental and physical factors that may influence problem behaviors. It should be used only for screening purposes as part of a comprehensive functional analysis of the behavior. Administer the FAST to several individuals who interact with the client frequently. Then use the results as a guide for conducting a series of direct observations in different situations to verify behavioral functions and to identify other factors that may influence the problem behavior.

To the Informant: Complete the sections below. Then read each question carefully and answer it by circling "Yes" or "No". If you are uncertain about an answer, circle "N/A".

Informant-Client Relationship

1. Indicate your relationship to the client: Parent Instructor Therapist Parapro Residential Staff Other
2. How long have you known the client? _____ years _____ months
3. Do you interact with client daily? Yes No
4. In what situations do you usually interact with the client?
 Meals Academic training Leisure activities
 Work or vocational training Self care
 Other _____

Problem Behavior Information

1. Problem behavior (check and describe):
 Aggression: _____
 Self-injury: _____
 Stereotypy: _____
 Property destruction: _____
 Disruptive behavior: _____
2.

Frequency:
<input type="checkbox"/> Hourly <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Less
3.

Severity:
<input type="checkbox"/> mild: disruptive but little risk to property or health
<input type="checkbox"/> moderate: property damage or minor injury
<input type="checkbox"/> severe: significant threat to health or safety
4. Situations in which the problem behavior is **most likely**:
Days/Times: _____
Settings/Activities: _____
Persons present: _____
5. Situations in which the problem behavior is **least likely**:
Days/Times: _____
Settings/Activities: _____
Persons present: _____
6. What is usually happening to the client right **before** the problem behavior occurs?
7. What usually happens to the client right **after** the problem behavior occurs?
8. How do you handle the behavior when it occurs?

9. Comments:

1. Does the client usually engage in the problem behavior when he/she is being ignored or when caregivers are paying attention to someone else?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
2. Does the client usually engage in the problem behavior when requests for preferred activities (games, snacks) are denied or when these items are taken away?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
3. When the problem behavior occurs, do you or other caregivers usually try to calm the client down or try to engage the client in preferred activities?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
4. Is the client usually well behaved when he/she is getting lots of attention or when preferred items or activities are freely available?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
5. Is the client resistant when asked to perform a task or to participate in group activities?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
6. Does the client usually engage in the problem behavior when asked to perform a task or to participate in group activities?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
7. When the problem behavior occurs, is the client usually given a break from tasks?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
8. Is the client usually well behaved when he/she is not required to do anything?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
9. Does the problem behavior seem to be a "ritual" or habit, repeatedly occurring the same way?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
10. Does the client usually engage in the problem behavior even when no one is around or watching?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
11. Does the client prefer engaging in the problem behavior over other types of leisure activities?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
12. Does the problem behavior appear to provide some sort of sensory stimulation?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
13. Does the client usually engage in the problem behavior more often when he/she is ill?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
14. Is the problem behavior cyclical, occurring at high rates for several days and then stopping?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
15. Does the client have recurrent painful conditions such as ear infections or allergies? If so, please list: _____				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
16. If the client is experiencing physical problems, and these are treated, does the problem behavior usually go away?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Scoring Summary - Circle the number from above of each question answered "Yes".

Items circled "Yes"	Total	Potential Source of Reinforcement
1 2 3 4		Attention/Preferred Items [Social]
5 6 7 8		Escape [Social]
9 10 11 12		Sensory Stimulation [Automatic]
13 14 15 16		Pain Attenuation [Automatic]

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Indirect Assessments

- **Questions About Behavioral Function (QABF)**
(Paclawskyj, Malson, Rush, Smalls & Vollmer, 2000)
- A questionnaire that is designed to identify the maintaining the environmental variables that control the frequency of the target behavior

Provides a Likert scale to determine the frequency in different conditions

- Behavioral functions that are assessed:
Attention, Escape, Sensory Stimulation, Physical (pain) & Tangible

QABF

QUESTIONS ABOUT BEHAVIORAL FUNCTION (QABF)

Psolawsky et al (2000)

Rate how often the student demonstrates the behaviors in situations where they might occur. Be sure to rate how often each behavior occurs, not what you think a good answer would be.

X = Doesn't apply 0 = Never 1 = Rarely 2 = Some 3 = Often

Score	Number	Behavior			
	1.	Engages in the behavior to get attention.			
	2.	Engages in the behavior to escape work or learning situations.			
	3.	Engages in the behavior as a form of "self-stimulation".			
	4.	Engages in the behavior because he/she is in pain.			
	5.	Engages in the behavior to get access to items such as preferred toys, food, or beverages.			
	6.	Engages in the behavior because he/she likes to be reprimanded.			
	7.	Engages in the behavior when asked to do something (get dressed, brush teeth, work, etc.			
	8.	Engages in the behavior even if he/she thinks no one is in the room.			
	9.	Engages in the behavior more frequently when he/she is ill.			
	10.	Engages in the behavior when you take something away from him/her.			
	11.	Engages in the behavior to draw attention to himself/herself.			
	12.	Engages in the behavior when he/she does not want to do something.			
	13.	Engages in the behavior because there is nothing else to do.			
	14.	Engages in the behavior when there is something bothering him/her physically.			
	15.	Engages in the behavior when you have something that he/she wants.			
	16.	Engages in the behavior to try to get a reaction from you.			
	17.	Engages in the behavior to try to get people to leave him/her alone.			
	18.	Engages in the behavior in a highly repetitive manner, ignoring his/her surroundings.			
	19.	Engages in the behavior because he/she is physically uncomfortable.			
	20.	Engages in the behavior when a peer has something that he/she wants.			
	21.	Does he/she seem to be saying, "come see me" or "look at me" when engaging in the behavior?			
	22.	Does he/she seem to be saying, "leave me alone" or "stop asking me to do this" when engaging in the behavior?			
	23.	Does he/she seem to enjoy the behavior, even if no one is around?			
	24.	Does the behavior seem to indicate to you that he/she is not feeling well?			
	25.	Does he/she seem to be saying, "give me that (toy, food, item)" when engaging in the behavior?			
	Attention	Escape	Non-social	Physical	Tangible
	1. Attention	2. Escape	3. Self-stim	4. In pain	5. Access to items
	6. Reprimand	7. Do something	8. Thinks alone	9. When ill	10. Takes away
	11. Draws	12. Not do	13. Nothing to do	14. Physical problem	15. You have
	16. Reaction	17. Alone	18. Repetitive	19. Uncomfortable	20. Peer has
	21. "Come see"	22. "Leave alone"	23. Enjoy by self	24. Not feeling well	25. "Give me that"
	Total	Total	Total	Total	Total



Indirect Assessments

- **Advantages:**

Easy and fast to conduct
Information is gathered by those familiar with the person

- **Disadvantages:**

Little reliability when conducted alone



Descriptive Assessments

- ABC Chart
- ABC Coding
- Scatter plot

All methods involve direct observation



ABC Chart

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Antecedent Behavior Consequence (ABC Chart)

Instructor	Date/Time	Antecedent	Behavior	Consequence	Intensity/ Duration	Notes

Results of ABC Recording

Antecedent	Behavior	Consequence
Instructor presents worksheet task ("Do worksheet")	Child rips up worksheet	Instructor removes task demand



Results of ABC Recording

Antecedent	Behavior	Consequence
Child is sitting at table, looking at camera; instructor is not interacting with child	Child swears	“Let’s use nice words” (attention)
Instructor asks child a question	Child answers instructor, while engaging in kicking behavior	Instructor praises child’s response & “Let’s not kick”
Instructor provides a vocal cue to child to indicate the next task will be presented soon	Child spits on table	Instructor calls attention to spitting behavior



Results of ABC Recording

Braden ABC

Antecedent	Behavior	Consequence
Instructor delivers command to child ("Get your PECS book", paired with gestured cue)	Child begins to protest (stomping feet), emitting high-pitched vocalization, and aggresses toward instructor (hitting, shoving)	Instructor does not follow through with transition, provides child access to swing ("Okay, you can have it")



Hypotheses

Setting Events

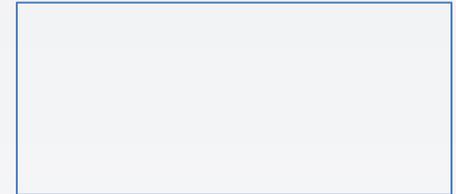
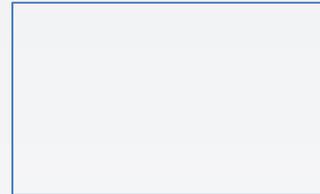
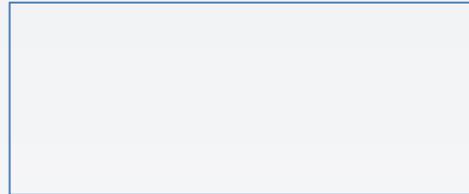
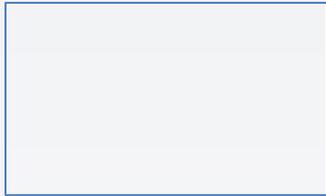
Antecedents



Behavior



Consequence



**Analyze the data that you have collected over *repeated* observations to determine the maintaining variables
Create statements to provide yourself a visual analysis**

ABC Coding

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Modified Antecedent Behavior Consequence (ABC Chart)



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Name of Student:

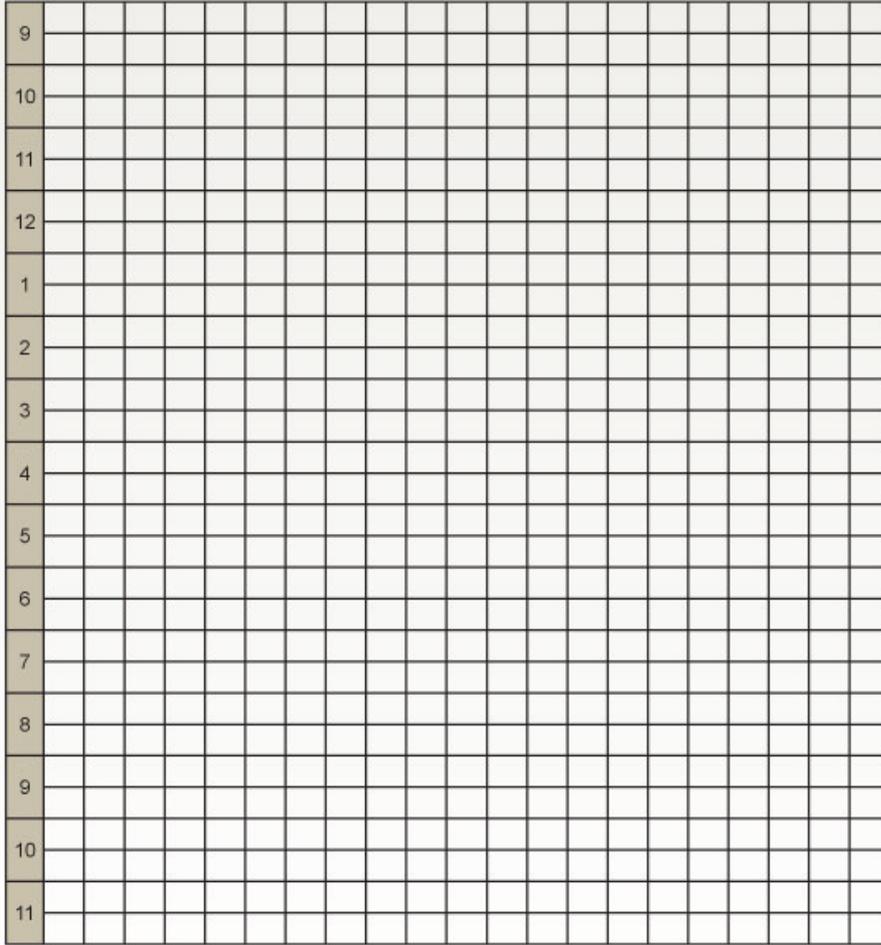
E-mail: contact@special-learning.com

	Antecedent:	Behavior:	Consequence:
Instructor: <input type="text"/> Date: <input type="text"/> Time: <input type="text"/>	Activity ended: <input type="text"/> No attention provided: <input type="text"/> Command given: <input type="text"/> Engaged in preferred activity: <input type="text"/> Item removed: <input type="text"/> Task presented: <input type="text"/> Transition to new activity: <input type="text"/>	Check all that apply: Tantrum <input type="text"/> Aggression toward other <input type="text"/> Property destruction <input type="text"/> Aggression toward self <input type="text"/> Duration: <input type="text"/>	Neutral redirection to complete task presented: <input type="text"/> Planned ignoring Item removed from consumer Attention is provided Item is provided to consumer Neutral redirection to new task presented: <input type="text"/>
Instructor: <input type="text"/> Date: <input type="text"/> Time: <input type="text"/>	Activity ended: <input type="text"/> No attention provided: <input type="text"/> Command given: <input type="text"/> Engaged in preferred activity: <input type="text"/> Item removed: <input type="text"/> Task presented: <input type="text"/> Transition to new activity: <input type="text"/>	Check all that apply: Tantrum <input type="text"/> Aggression toward other <input type="text"/> Property destruction <input type="text"/> Aggression toward self <input type="text"/> Duration: <input type="text"/>	Neutral redirection to complete task presented: <input type="text"/> Planned ignoring Item removed from consumer Attention is provided Item is provided to consumer Neutral redirection to new task presented: <input type="text"/>
Instructor: <input type="text"/> Date: <input type="text"/> Time: <input type="text"/>	Activity ended: <input type="text"/> No attention provided: <input type="text"/> Command given: <input type="text"/> Engaged in preferred activity: <input type="text"/> Item removed: <input type="text"/> Task presented: <input type="text"/> Transition to new activity: <input type="text"/>	Check all that apply: Tantrum <input type="text"/> Aggression toward other <input type="text"/> Property destruction <input type="text"/> Aggression toward self <input type="text"/> Duration: <input type="text"/>	Neutral redirection to complete task presented: <input type="text"/> Planned ignoring Item removed from consumer Attention is provided Item is provided to consumer Neutral redirection to new task presented: <input type="text"/>

Scatter Plot Form

Student _____ Starting date: _____

Time of the day(30 min. intervals)



Successive days

Scatterplot

Descriptive Assessment

Advantages:

- Represent contingencies in the person's natural routine
- Can be easy to implement if the observer is trained well
- Data can be used to formulate a hypothesis of the maintaining variable(s)

This can be further tested with a Functional Analysis

Disadvantages:

- Can produce unreliable data
- Can over-estimate the attention variable

Functional (**Experimental**) Analysis (FA)

Functional Analysis of Behavior:

Thompson & Iwata (2007) explains the general characteristics as:

- Direct & quantitative observation of Behavior
- Conditions of observation are controlled
- Comparison between test and control conditions



Functional Analysis Conditions

- Attention
- Demand
- Alone
- Access to Tangible
- Play (Control)
 - *During all conditions the designated consequence was delivered every time the problem behavior occurred*
 - *All sessions last a minimum of 10 minutes*
 - *Order of conditions are randomized*



Attention

- **The** adult maintains a distance of three to six feet from the participant and pretends to be occupied with paperwork.
- When the participant engages in the target behavior, the adult approaches the participant, places a hand on the child's back and gave a verbal reprimand that represents what might typically happen
(e.g. *“Stop doing that.”*; *“You shouldn't do that because you are going to hurt yourself”*).
- When the behavior is not occurring, the adult does not engage in social attention.



Demand

- The participant is assigned a predetermined task that is determined to be challenging, but within their intellectually ability
- Verbal instructions and modeling of the task are provided at the beginning of the session.
- When the participant engages in the target behavior, the task is removed for **30 seconds** and the adult said, *“Time to take a break.”*
- Following a 30 second break, the task and demand are presented again.



Alone

- The participant is directed to stay in the assigned area.
- The environment is void of materials
- The observer observes from outside of the environment



Access to Tangible

- The participant is presented with a preferred item
Previously determined by an interview or assessment
- The item is removed after a set interval of 30 seconds
- The adult maintains a distance of **three to six feet** from the participant.
- Upon demonstration of the target behavior the adult presents the participant with the preferred item and says *“Now it’s your turn with the (item)”*
- After **30 seconds**, the preferred item is removed again with the statement *“Now it’s my turn with the (item)”*

Play (Control)

- The **play condition** is used as a control for the other four conditions.
- During free play, the participant has access to preferred toys, neutral activities and the adult provides positive attention in a continuous, non-contingent rate of 30 seconds.
- No instructional demands are placed on the participant.



Cost-Benefits of Conducting an FA

- An **FA** provides a clear demonstration of functional relationships
- Provides a clear foundation for treatment development

But;

- There is **potential risk** (self injury)
- The procedures are complex



Review of Behavioral Functions

To get something: **Positive Reinforcement**

- Social Positive Reinforcement (Attention)
- Tangible Reinforcement
- Automatic Positive Reinforcement

To get out of something: **Negative Reinforcement**

- Social Negative Reinforcement (Escape/Avoidance)
- Automatic Negative Reinforcement



*Now it is your turn to identify the
function of the behavior*

Neutral Redirection

Redirecting a child to engage in an appropriate behavior

- Back to the original task
- To an appropriate task
- When not already engaged in a task
- To request appropriately
- To play appropriately

It is important to maintain a neutral facial expression and refrain from talking and looking at the child



FBA Summary

4 - Step Process

1. Gather information from the indirect and descriptive assessments.
2. Interpret the information and formulate a description and hypothesis.
3. Test the hypothesis with a functional analysis.
4. Develop an intervention based on the function of the problem behavior.



Indirect Functional Assessment Resources

Interviews

- Functional Assessment Interview
(O'Neal, et al., 1997)

Questionnaires

- Behavioral Diagnosis and Treatment Information Form *(Bailey & Pyles, 1989)*
- Stimulus Control Checklist
(Rolinder & Van Houten, 1993)

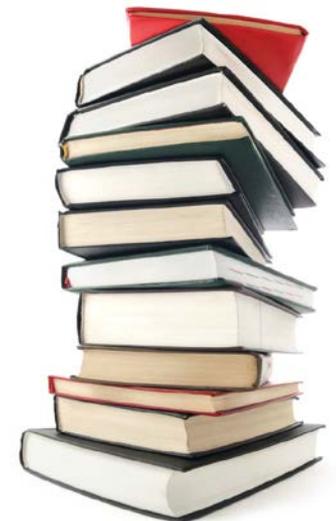
Behavior Rating Scale

- Motivation Assessment Scale
(Durand & Crimmins, 1988)



References

- Carr, E. (1997). The Motivation of Self-Injurious Behavior: A Review of Some Hypotheses. *Psychological Bulletin*, 84, 800-816.
- Cooper, J.O., Heron, T.E., & Heward, W.L. (2007). *Applied Behavior Analysis*. Columbus, Ohio: Pearson.
- Hagopian, L., Wilson, L. & Wilder, D. (2001) Assessment and treatment of problem behavior maintained by escape from, attention and access to tangible items. *Journal of Applied Behavior Analysis*, 34, 229–232
- Hanley, G.P., Iwata, B.A., & McCord, B.E. (2003). Functional analysis of problem behavior: A review. *Journal of Applied Behavior Analysis*, 36, 147-185.
- Horner, R. H. (1994). Functional assessment: contributions and further directives. *Journal of Applied Behavior Analysis*, 279, 401-404.
- Horner, R. H. (2000). Positive behavior support. *Focus on Autism and other Developmental Disabilities*, 15, 97 – 105.
- Horner, R.H. & Carr, E.G. (1997). Behavioral support for students with severe disabilities: Functional assessment and comprehensive intervention. *Journal of Special Education*, 31, 84-104.
- Iwata, B. (1987) Negative reinforcement in applied behavior analysis: an emerging technology. *Journal of Applied Behavior Analysis*, 209, 361-378.



References

- Iwata, B. A., & DeLeon, I. G. (1995). The functional analysis screening tool (FAST). Unpublished manuscript, University of Florida.
- Iwata, B., Pace, G., Dorsey, M., Zarcone, J., Vollmer, T., Smith, R., Rodgers, T., Lerman, D., Shore, B., Mazaleski, J., Goh, H., Cowdery, G., Kalsher, M., McCosh, K., & Wills, K. (1994). The function of self-injurious behavior: an experimental-epidemiological analysis. *Journal of Applied Behavior Analysis*, 27, 215-240.
- Lafasakis, M. & Sturney, P. (2007). Training on parent implementation of discrete trial teaching: effects on generalization of parent teaching and child correct responding. *Journal of Applied Behavior Analysis*, 40, 685-689.
- Paclawskyi, T. R., Matson, J. L., Rush, K. S., Smalls, Y. & Vollmer, T. R. (2000). Questions about behavioral function (QABF): A behavioral checklist for functional assessment of aberrant behavior. [*Research in Developmental Disabilities*, 21, 223–229.](#)
- Smith, R. & Iwata, B. (1997). Antecedent influences on behavior disorders. *Journal of Applied Behavior Analysis*, 30, 343–375.
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, C. M., Scott, T., Liaupsin, C., Sailor, W., Turnbull, A. P., Turnbull, H. R., III, Wickham, D., Reuf, M., & Wilcox, B. (2000). Applying positive behavioral support and functional behavioral assessment in schools. *Journal of Positive Behavioral Interventions*, 2, 131-143.

