

# Registered Behavior Technician Study Guide



## About this Study Guide

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4	- Measurement	5
	A-01 Reviewing data	5
	A-2 Continuous Measurement Procedures	5
	Frequency vs. Rate Data Collection	6
	Duration	7
	Latency	8
	Interresponse Time (IRT)	8
	When to Use Continuous Measurement	8
	A-3 Discontinuous Measurement	9
	Partial Interval	10
	Whole Interval	12
	Momentary Time Sampling	12
	When to Use Discontinuous Measurement	14
	A-4 - Permanent Product	14
	A-5 - Data and Graphs	15
	Level	15
	Trend	16
	Variability	17
	A-6 - Describe Behavior and the Environment	18
	Guidelines	18
3	- Assessment	19
	B-1 Preference Assessment	19
	Free Operant Preference Assessment	19
	Single Stimulus Preference Assessment	20
	Paired Stimulus Preference Assessment	21
	Multiple Stimulus without Replacement Preference Assessment	22
	Multiple Stimulus with Replacement Preference Assessment	22
	R-2 Functional Assessment Procedures	73



B-3 Functional Assessments	24
Indirect Assessment	24
Step for Conducting an FBA	25
Direct Assessment	25
C - Skill Acquisition	28
C-1 Skill Acquisition Plan	28
C-2 Session Preparation	30
C-3 Contingencies of Reinforcement	30
Conditioned vs Unconditioned	31
Continuous vs Intermittent Reinforcement	31
Schedules of Reinforcement and Punishment	32
C-4 Discrete Trial Teaching	34
C-5 Naturalistic Teaching Procedures	35
C-6 Task Analysis	36
C-7 Discrimination Training	38
C-8 Stimulus Control Transfer	39
C-9 Prompt and Prompt Fading	39
C-10 Generalization and Maintenance	41
C-11 Shaping Procedures	42
C-12 Token Economy	42
D - Behavior Reduction	43
D-1 Identify the Essential Components of a Behavior Reduction Plan	43
D-2 Functions of Behavior	44
D-3 Interventions based on Antecedents	45
D-4 Differential Reinforcement	45
D-5 Extinction Procedures	46
D-6 Crisis/Emergency Procedures	47
E - Documentation and Reporting	47
E-1 - Effectively Communicate	48
E-2 - Seek Clinical Direction	48
E-3 - Report on Variables	49
E-4 - Objective Session Notes	49
E-5 - Comply with Applicable Legal Requirements	50
F - Professional Conduct and Scope of Practice	50



F-1 - Describe Role of RBT	51
F-2 - Respond Appropriately to Feedback	53
F-3 - Communicate with Stakeholders	54
F-4 - Maintain Professional Boundaries	56
F-5 - Maintain Client Dignity	57



## A - Measurement

## A-01 Reviewing data

A	-1
Prepare for data collection	<ul> <li>Review data from the last session</li> <li>Determine targets to be run in upcoming session based on the data review</li> <li>Gather materials needed for upcoming session</li> <li>Set up for the session</li> </ul>

Data collection is a critical job aspect for an RBT. Data collection is used to make program decisions for each client. Missing data or errors in data collection could result in uninformed program changes, which ultimately could cause harm to your client. Make sure you are always knowledgeable about your client's data for each target in the program and set up a session environment that results in reliable, accurate data collection. Some companies use digital or online data collection tools, while others may only use paper to collect data. As an RBT, you should be aware of all data collection methods that can be used at your place of employment.

### **A-2 Continuous Measurement Procedures**

A-2					
Implement continuous measurement procedures	<ul> <li>Frequency</li> <li>Rate</li> <li>Duration</li> <li>Latency</li> <li>Interresponse time</li> </ul>				

Continuous measurement procedures are used to measure all instances of a behavior. When an RBT is implementing a continuous measurement procedure, they are watching the client and recording every time the behavior occurs.

The following table provides an overview of continuous measurement procedures.

Procedure	Definition	Example
Frequency	A count for each time the behavior occurs. Frequency is best to use when the	Robin hit her head 4 times. The frequency would be 4. The RBT "counts" how many times Robin hit



	observation length (e.g. therapy session) is consistently the same.	her head.		
Rate	Ratio of count per observation period. Not to be confused with frequency. It is expressed as a total number of frequencies divided by the time period. Rate is usually used when the observation length, or session, is not consistently the same.	Robin hit her head 4 times the first hour and 2 times the second hour. The rate would be 3 times per hour.		
Duration Total length of time a behavior occurs.		Robin screamed for 4 minutes when she was denied access to her toy.		
Latency	The amount of time from the onset of the stimulus to the start of the response	The teacher handed out a worksheet facedown. She instructed the students to turn the paper over and begin working. Charlie waited 15 seconds before he turned the paper over to work. The latency would be 15 seconds.		
Interresponse Time	The amount of time between responses.	A personal trainer is working with Sue. When working on push-ups, Sue waits 10 seconds between push-ups. The interresponse time is 10 seconds.		

## Frequency vs. Rate Data Collection

Frequency and rate both count the occurrence of behavior; however, the data are calculated differently. When collecting data for rate, the data will include frequency as well. The following table provides an overview of how to collect data for each procedure.

Date	Client:	Target Behavior			Obs	servation	n Interval:
4/2/2020	ML Tapping index finger on table Interval: 2 minutes Total time: 10 minu Number of trials: 3		Tapping index finger on table		ninutes		
	1	2	3	4		5	Total
Trial 1	5	4	8	5		7	29
Trial 2	7	5	8	9		6	35



Trial 3	4	4	9	7	4	25
	Total for 10-minute interval				89	

The data in the chart above show the number of times (frequency) the client tapped her index finger on the table during each interval. The client tapped her finger 5 times in the first interval of Trial 1. At the end of the Trial 1, the client had tapped her finger 29 times (frequency) in 10 minutes, or 2.9 taps/min (rate). For the entire 30-minute duration, the client tapped her finger 89 times (frequency), or 2.96 taps/minute.

#### **Duration**

Duration is another continuous measurement procedure used to measure the amount of time a behavior occurs. Duration records instances of behavior that occur too frequently to count or when a behavior is continuous. How duration data is recorded depends on the definition of the behavior. The following table provides an overview of how duration is recorded.

Duration Example			
Target Behavior	Taps finger for 10 seconds pauses for 2 seconds, taps finger for 15 seconds, pauses for 4 seconds		

<b>Behavior Definition</b>	Duration data	Rationale
Marge taps her index finger on the table with no more than a <b>3</b> second pause	27 seconds	The behavior is recorded as: 10 seconds tap, 2 seconds pause, 15 seconds tap, 4 seconds pause. The duration for the behavior would be 27 seconds
Marge taps her index finger on the table with no more than a 5-second pause	31 seconds	The behavior is recorded as: 10 seconds tap, 2 seconds pause, 15 seconds tap, 4 seconds pause. The duration for the behavior would be 31 because there was not pause more than 5 seconds

Duration provides more information on the occurrence of a behavior that is more than a few seconds long. For example, you may take frequency data on tantrums. If your client exhibits 2 tantrums during a 2-hour session, this information does not provide an accurate account of the behavior. Adding duration provides more information about the behavior. Use



the same example of 2 tantrums during a 2-hour session. When duration is used in conjunction with frequency, the first tantrum lasting 15 minutes and second tantrum lasting 35 minutes is very different from the first tantrum lasting 45 seconds and the second tantrum lasting 25 seconds.

#### Latency

Latency is used to determine the amount of time between the presentation of a stimulus and a response. Latency can be used to increase or decrease behavior. The following table provides an overview of how to collect latency data.

Latency Example					
Data Collection	Latency	Rationale			
Jorge starts walking 30 seconds after the crosswalk signal changes to walk.	30 seconds	Jorge starts walking 30 seconds after the signal changes. This long latency could cause safety issues for crossing the street. To address safety concerns, the latency is reduced to 5 or less seconds.			

### **Interresponse Time (IRT)**

Interresponse time is used to determine the amount of time between the presentation of two consecutive responses. Interresponse can be used to increase or decrease behavior. The following table provides an overview of how to collect Interresponse time data.

Interresponse Time Example					
Data Collection	IRT	Rationale			
Sara puts food in her mouth before she has completed chewing and swallowing what is already in her mouth. This behavior results in her mouth being overfull, as well as several instances of choking. The BCBA determines that Sara puts food in her mouth on an average of every 10 seconds.	10 seconds	Sara's IRT for taking bites is very short and results in safety issues. To address these safety concerns the IRT between bites will be increased to allow more time to chew and swallow.			

#### When to Use Continuous Measurement



Procedure	Use when:
Frequency	<ul> <li>The observation length is consistent from day to day</li> <li>The behavior is discrete and short in duration</li> </ul>
Rate	<ul> <li>The observation length varies from day to day</li> <li>The behavior lasts for more than a few seconds</li> </ul>
Duration	<ul> <li>There is a clear beginning and end to the behavior</li> <li>The length of the behavior is a concern</li> <li>Behavior occurs at a high frequency</li> </ul>
Latency	<ul> <li>There is a clear beginning and end to the behavior</li> <li>It is important to know the "time to respond"</li> </ul>
Interresponse Time	<ul> <li>There is a clear pause between two consecutive responses</li> <li>Determining if a behavior should be counted as more than one instance</li> </ul>

#### **A-3 Discontinuous Measurement**

Α	-3
Implement discontinuous measurement procedures	<ul><li>Partial interval</li><li>Whole interval</li><li>Momentary time sampling</li></ul>

Discontinuous measurement procedures are used to measure a sample of a behavior during an observation period. Continuous measurement procedures record every occurrence of a behavior; discontinuous measure is used if a behavior occurs during or at the end of a specified interval. When using discontinuous measurement procedures you are estimating the occurrence of a behavior, rather than record exact measurements. Data is recorded as either the behavior occurring or not occurring; it does not record the number of times the behavior occurs.

A stopwatch, clock, or wristwatch is needed to keep track of the time intervals.

The following table provides an overview of discontinuous measurement time sampling procedures.

Procedure Definition Example	Procedure	Definition	Example
------------------------------	-----------	------------	---------



Partial interval	A time sampling procedure in which a behavior is recorded if it occurs at least once in during the defined interval.	The RBT is taking data on picking fingers during a 5-minute interval. At the 3-minute mark, the client exhibits the behavior for 10 seconds. The interval is marked as the behavior occurring.
Whole interval	A time sampling procedure in which a behavior is recorded only if it occurs during the entire defined interval.	The RBT is taking data on picking fingers during a 5-minute interval. At the 3-minute mark, the client exhibits the behavior for 10 seconds. The interval is marked as the behavior not occurring because the behavior did not occur during the entire interval.
Momentary time sampling	A time sampling procedure in which the behavior is recorded if it occurs at the end of a defined interval.	The RBT is taking data on picking fingers during a 5-minute interval. At the 3- minute mark, the client exhibits the behavior. The interval is marked as the behavior not occurring because the behavior did not occur at the end of the interval.

#### **Partial Interval**

Partial interval recording is used to measure behaviors that happen so quickly that they are hard to catch. A time period is broken into intervals. The RBT records if the behavior occurred at least one during the interval and the data is entered as a percentage. The following table provides an overview of how to record partial interval data.

Partial Interval Example						
Date	Client:	Target Behavior			Observat	ion Interval
4/2/2020	ML	Eye blii	Eye blinks		Interval: 2 minutes Total time: 10 minutes	
1		2	3	4	5	Total
Х		+	+	X	Х	40%

In the table above, the behavior only occurred in intervals 2 and 3. The number of intervals in which the behaviors occurred is divided by the number of intervals to determine the percentage. There are a total of 5 intervals. The behavior occurred in two intervals.  $\frac{2}{5}$ =40%.



Partial interval recording tends to overestimate the occurrence of the behavior. Use the example from the table in which the behavior occurred 40% of the time. Based on the percentage, you would conclude that the behavior occurred for 4 minutes; however, this is not the case. When collecting partial interval data, the behavior is recorded as happening even if the behavior occurred for a short duration. In this example, the behavior could have occurred between 2 second - 4 minutes.



#### Whole Interval

Whole interval is used to measure behaviors that occur for the entire interval. This procedure requires undivided attention for the RBT. A time period is broken into intervals. The RBT records if the behavior occurs during the entire interval and the overall data is entered as a percentage. The following table provides an overview of how to partial interval data.

Whole Interval Example							
Date	Client:		Target Behavior		Observation Interval:		
4/2/2020	ML	Hummi work				nterval: 2 minutes otal time: 10 minutes	
1		2	3 4 5		Total		
+		+	Х	Х	+	60%	

Whole interval recording tends to underestimate the occurrence of the behavior. Use the example from the table in which the behavior occurred 60% of the time. Based on the percentage, you would conclude that the behavior occurred for 6 minutes; however, this is not the case. When collecting whole interval data, the behavior is recorded as happening only if the behavior during the entire interval. In this example, the behavior is marked as occurring during intervals 1,2, and 5. This data reflects that the behavior occurred for at least 6 minutes. Even if the behavior occurred for 30 seconds in interval 3 and 1 minute in interval 4, the intervals are marked as not occurring.

### **Momentary Time Sampling**

Momentary time sampling is used to measure behaviors that occur at the end of an interval. A time period is broken into intervals. The RBT records if the behavior occurs only at the end of the interval and the overall data for the time period is entered as a percentage.



The following table provides an overview of how to record momentary time sampling.

	Momentary Time Sampling Example						
Da	ate	Client	::	Target Behavior		Observation Interval:	
4/2/2	2020	ML	Hummi work	Humming behavior during seat work		Interval: 2 minutes Total time: 10 minutes	
	1		2	2 3 4		5	Total
	Χ		Х	Х	+	+	40%

Momentary time sampling tends to underestimate and overestimate the occurrence of the behavior. Use the example from the table in which the behavior occurred 40% of the time. Based on the percentage, you would conclude that the behavior occurred for 4 minutes; however, this is not the case. When collecting momentary time sampling interval data, the behavior is recorded as happening only if the behavior occurred at the end of the interval. In this example, the behavior is marked as occurring during intervals 4 and 5. This data reflects that the behavior could have occurred for at least 4 minutes. Even if the behavior occurred at the beginning of the interval for 45 seconds, the interval is still marked as not occurring because it did not occur at the end of the interval. This scoring would underestimate the behavior. If the behavior occurred for only the last 5 seconds of interval 5, it would be marked as occurring because it occurred at the end of the interval. This scoring overestimates the behavior.



#### When to Use Discontinuous Measurement

Procedure	Use when:
Partial interval	<ul> <li>The behavior happens quickly</li> <li>The behavior does not last long</li> <li>You want to decrease behavior</li> <li>It is not possible to observe continuously</li> </ul>
Whole interval	<ul> <li>The behavior is not easily counted</li> <li>The behavior does not have a clear beginning and end</li> <li>The behavior occurs at a high frequency</li> <li>You want to increase a behavior</li> </ul>
Momentary Time Sampling	<ul> <li>The behavior is not easily counted</li> <li>The behavior does not have a clear beginning and end</li> <li>It is not possible to observe continuously</li> </ul>

#### **A-4 - Permanent Product**

Α	-4
Implement Permanent Product Recording Procedures	Permanent product

A permanent product is the result of an individual's behavior. A permanent product might be a written essay, a math test, making dinner, or washing clothes. Permanent products are examined to determine if a task has been completed. Direct observation of a behavior is not required with implementing permanent product procedures because the permanent product indicates that the behavior occurred.

The following table provides examples of using permanent product procedure.

Behavior Task	Permanent Product
Using the microwave to make a snack	A microwave bag of popcorn
80% accuracy on math test	Grade of 80 or above on math test
Clear out the dishwasher	Empty dishwasher



## A-5 - Data and Graphs

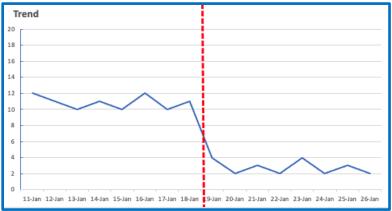
	<b>4-5</b>
Enter data and update graphs	<ul><li>Level</li><li>Trend</li><li>Variability</li></ul>

Data for targets are gathered each session. The data are put into a graph for a visual examination of the client's progress. The success, failure or stagnation of a target can be determined from the graph. Graphs are examined to determine the following:

- Level- the position of data on the Y axis
- Trend- the direction in which that data is moving
- Variability- the relationship between the data points on the graph

#### Level

Identify the lowest data point and the highest data point to determine the level of a graph. Use the graph below to determine the lowest and highest date points.



Look to the left of the red line. The data points to the left show a level of between 10-12. The data points to the right show a level between 2-4. There is a change in level between the two sides of the graph. The left side is a level of high rates of responding and the right side is a level of low rates of responding.



#### **Trend**

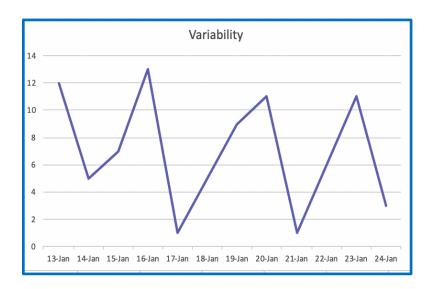
Trend relates to the overall direction of the data on the graph. Trend can be increasing, decreasing, or no trend. The following graph provides a visual of the three types of trend lines.





#### **Variability**

Variability is determined by comparing data points to other data points on the graph. Variability results in the inability to determine if an intervention is working because the data points do not show consistency in trend or level. The following graph provides a visual of a graph with variability.



Data and graphs are critical to understand and interrupt to make clinical decisions about a client's program. Graphs can be generated by using tools such as Microsoft Excel, Google Sheets, or using a third-party software provider.



#### A-6 - Describe Behavior and the Environment

A	-6
Describe behavior and environment in observable and measurable terms.	<ul><li>Observable</li><li>Measurable</li></ul>

The terms used to describe a behavior should define the behavior precisely. Defining the behavior in these terms provides a therapist with the ability to observe the target behavior. Once it has been observed, the therapist can then measure the behavior by taking data.

The following table provides an example of a definition.

Туре	Description	Rationale
Example	Twilla slaps herself on the side of the head using an open palm as a function of escape when she is presented with non-preferred tasks.	In this example, the target behavior is slapping. It has been defined as using an open palm and hitting on the side of the head, and only occurs with non-preferred tasks.
		With this definition, a new therapist on Twilla's case would be able to observe and measure this behavior.
Non- Example	Twilla hit herself when she was given work.	In this example, the target behavior is hitting; however, it is unknown if she uses a closed fist, open palm, as well as where she is hitting herself. The antecedent is also unknown.
		With this definition, a new therapist on Twilla's case would not be able to observe and measure this behavior.

## **Guidelines**

When describing behaviors make sure to use:

- Objective terms, not subjective or opinions such as bad behavior, mean behavior, or out of control
- Use the function of the behavior when possible
- Use the antecedent behavior, if known



#### **B** - Assessment

#### **B-1 Preference Assessment**

B-1				
Conduct preference assessments	<ul> <li>Free operant</li> <li>Single choice</li> <li>Paired choice</li> <li>Multiple with replacement</li> <li>Multiple without replacement</li> </ul>			

Preference assessments are conducted to determine items that could be used as reinforcers during a session. The word "could" is used because you will not know if the item is reinforcing until you are running the program. The following list provides an overview of preference assessments:

- Free operant preference assessment
- Single stimulus preference assessment
- Multiple stimulus with replacement
- Multiple stimulus without replacement

#### **Free Operant Preference Assessment**

In a free operant preference assessment, the client can freely engage with the selected items in the room. The therapist monitors the client and logs the item(s) with which the client engages and the duration of the engagement. The items are then placed in order based on the total duration.



The item with the longest duration is the most preferred, and the item with the shortest duration is the least preferred.

#### Example

Myra is starting to work with Grover, a 5-year-old boy with autism. Myra is conducting a free operant preference assessment with Grover. Myra takes Grover to a therapy room that has the following 5 items in the room: a toy car, a toy piano, play doh, bubbles, and a puzzle. Myra watches Grover engages with the toys for 15 minutes. Myra logs the following data:

Item	Engagement
car	1st engagement: 3 minutes 6th engagement: 3 minutes Total: 6 minutes
puzzle	2nd engagement: 2 minutes
Play doh	3rd engagement: 1 minutes
bubbles	4th engagement: 1 minutes 7th engagement: 3 minutes Total: 4 minutes
piano	5th engagement: 2 minutes

Based on this data, the items are ranked as follows from most preferred to least preferred:

- 1. Car
- 2. Bubbles
- 3. Puzzle and piano
- 4. Play doh

## **Single Stimulus Preference Assessment**

A single stimulus preference assessment is conducted when a client cannot select between highly preferred and low-preferred items. This assessment can be conducted at a table or on the floor. To run this assessment, choose the items and present them one at a time. Record the duration of the engagement.



Continue this process until all items have been presented. If the client does not engage, mark this a no approach.

Example					
Trial	Item Name	Approach	Engagement (mm:ss)		
1	Play-Doh	<b>Yes</b> No	1:53		
2	school bus	<b>Yes</b> No	2:21		
3	ball	Yes <b>No</b>	0:00		
4	toy piano	<b>Yes</b> No	0:45		
5	stacking toy	<b>Yes</b> No	1:23		

Based on this data, the items are ranked as follows from most preferred to least preferred:

- 1. School bus
- 2. Play doh
- 3. Stacking toy
- 4. Piano
- 5. ball

#### **Paired Stimulus Preference Assessment**

A paired stimulus assessment is conducted at a table or floor area by placing two items in front of the client and the client is asked to select an object. When an item is selected, the client is allowed to engage with the item for 10-30 seconds before it is removed. The assessment is discontinued after all items have been paired or when the client does not respond to three consecutive paired stimuli presentations.

Example					
Trial	Trial Item Item Selection			Preference Hierarchy	
1	Α	В	A selected <b>0</b> times	Highest preferred item: C	
2	С	Α	B selected 2 times	Moderately preferred items: <b>B</b> and <b>D</b>	
3	А	D	C selected <b>3</b> times	Lowest preferred item: A	
4	В	С	D selected 1 times		
5	D	В			
6	С	D			



## Multiple Stimulus without Replacement Preference Assessment

A multiple stimulus preference assessment is conducted at a table or floor area with the client by placing all the times in front of the client. Ask the client to "Pick one" Allow the client to engage with the item for 5-30 seconds before removing the item. While the client is engaging with the item, move the leftmost item to the rightmost position to assist in detecting bias. Repeat the trials until no items are left.

This process is completed several times with the client to determine the preference of the items. If the trials all resulted in the same selection, the preference is as follows:

- 1. C
- 2. A
- 3. B
- 4. E
- 5. D

Example		
Trial	Trial Item Selected Placement of Item	
1	С	A B C D E
2	А	B D E A
3	В	D E B
4	E	E D
5	D	D

## Multiple Stimulus with Replacement Preference Assessment

A multiple stimulus with replacement preferences assessment is conducted at a table or floor area with the client by placing 3-4 items in front of the client. Prompt the client to "pick one" and allow the client to engage with the selected item for 5-30 seconds before removing the item. While the client is engaging with the item, replace the unselected items with new items. Place the selected item back in with the items to be selected. Repeat the process until all items have been presented at least two times, or when the client refuses to make a selection.

The following table provides an overview of a multiple stimulus with replacement preference assessment.



	<b>Example</b>					
Trial	al Placement of Item		f Item	Items Selected	Preference Hierarchy	
1	А	В	С	Item A: 0 times	Highest preferred item: B	
2	С	D	В	Item B: 2 times	Moderately preferred item: C	
3	А	В	D	Item C: 3 times	Lowest preferred items:	
4	Е	А	В	Item D: 0 times	A, D, and E	
5	С	В	Е	Item E: 0 times		

Based on this data, the items are ranked as follows from most preferred to least preferred:

- 1. C
- 2. B
- 3. A, D, and E

### **B-2 Functional Assessment Procedures**

В	-2
Assist with functional assessment procedures	<ul><li>Curriculum-based</li><li>Developmental</li><li>Social skills</li></ul>

Each client is different. The assessments used for each client is different depending on the needs of the individual. To assess an individual, a BCBA may use observations, surveys, questionnaires, interviews, and assessment tools. These tools can be curriculum-based, developmental, or social skills based. The type used depends on the individual's needs.



The following table provides an overview of the different types of assessments. Note that some assessments may overlap categories and touch on all three areas.

Assessments				
Туре	Description	Assessments		
Curriculum-based	<ul> <li>Assessment of taught skills</li> <li>Can focus on academics such as math, writing, or reading</li> </ul>	DIBELS		
Developmental	<ul> <li>Focuses on developmental milestones</li> <li>Focuses on age- and grade- level skills</li> </ul>	<ul> <li>Vineland Adaptive Scales</li> <li>Adaptive Behavior     Assessment Scale</li> <li>VB-MAPP</li> <li>ABLLS</li> </ul>		
Social skills	Focuses on age- and grade- level social skills	????		

### **B-3 Functional Assessments**

В-3			
Assist with functional behavior assessment procedures	<ul><li>Indirect</li><li>Descriptive</li><li>Functional analysis</li></ul>		

#### **Indirect Assessment**

An indirect functional behavior assessment (FBA) is a process in which the client is not directly observed. Instead, the BCBA may use:

- Existing behavioral data
- Checklists
- Rating scales
- Interviews
- Surveys



The BCBA may request this information from the school, teachers, other therapists, and caregivers. This information is used to determine the context in which the behavior occurs and the function of the behavior. The information from an indirect FBA is typically not sufficient to formulate a functional hypothesis.

An FBA is conducted to gather information about when and where a challenging behavior occurs, as well as why the behavior occurs. An FBA helps the BCBA determine the function of the behavior based on the antecedent and consequences. There are two types of FBA processes: indirect and direct. The results of both FBA processes include:

- Operationally defined target behaviors
- Antecedents for target behaviors
- Function of the target behaviors
- Replacements for target behaviors

## **Step for Conducting an FBA**

The following list provides the 5 steps for conducting an FBA.

- 1. Identify the problem
- 2. Collect information to determine the function
- 3. Form a hypothesis
- 4. Plan an intervention
- 5. Evaluate the plan

#### **Direct Assessment**

A direct FBA is a process in which the client is observed in the natural environment and data is recorded. The data is then used to determine the antecedent for the behavior and the function of the behavior. The data are used to develop an operational definition for the target behavior. The following table provides an overview of descriptive measures that a BCBA may use when conducting a direct assessment.



Descriptive Measure	Description	Example		
ABC event recording	Allows the BCBA to identify the antecedent and consequence for a behavior. The information can be used to determine	Antecedent	Behavior	Consequence
		Mom asked Charlie to clean his room	Charlie fell to the floor and cried	Charlie did not have to clean his room
	the function of the behavior.			
Antecedent manipulation	Identifying triggers for target behaviors and altering the environment before a behavior occurs	Using the ABC data above: Antecedent manipulation: Mom tells Charlie to first clean his room, then he can play his video game an extra 10 minutes Behavior: Charlie cleans his room Consequence: Charlie gets to play his video game an extra 10 minutes		
Functional Analysis	Called an "FA". This procedure involves manipulating events and recording data to determine the function of a behavior.	By manipulating events, the BCBA can determine if the behavior is a function of attention, escape, access, or self-stimulation.		

An FA manipulates events to determine the function of a behavior. The following text and table provide more information on conducting an FA on a fictitious client.

Max is a 10-year-old boy who lives with his mom and dad in San Diego, CA. Max exhibits tantrum behaviors when he hears loud noises. The BCBA working with Max observes his behavior and documents the following:

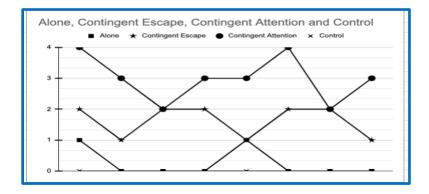
Antecedent	Behavior	Consequence
Max is in the living room when a loud noise occurs in the kitchen	Max looks toward the kitchen then returns to his game	Max is allowed to continue his game
Max is in the living room with mom when her phone rings	Max looks at mom and exhibits tantrum behaviors	Mom rushes to Max to make sure he is OK
Max is playing in the garage when a box falls on the floor	Max gasps and looks at the box, then continues playing	Max plays for the next 15 minutes.



The BCBA concluded that the behavior may function as attention. A FA is conducted to determine the function of the tantrum behavior.

	Conducting an FA			
	Attention	Escape	Sensory	Play
Description	(30 min) play a loud sound and provide attention when Max has a tantrum	(30 min) play a loud sound and allow Max to escape the task he is working on	(30 min) Max sits in the room. Play a loud sound and record if Max becomes upset or has tantrum behaviors	(30 min) Provide Max with a variety of reinforcing activities/items. Document is Max exhibits tantrums when a loud noise occurs while he is playing.
Data over 8 sessions	24 tantrums	14 tantrums	2 tantrums	2 tantrums

The data from the FA are graphed below in an alternating treatment design. Based on the graph below it can be concluded that the function of the tantrum behavior is attention. The tantrum behavior during the Contingent Attention phase occurred at a greater frequency than the other conditions.





## **C - Skill Acquisition**

C-1			
Skills Acquisition	<ul> <li>Identify the essential components of a skills acquisition plan</li> <li>Prepare for session as required by skill acquisition plan</li> <li>Use contingencies of reinforcement</li> <li>Implement discrete-trial teaching procedures</li> <li>Implement naturalistic teaching procedures</li> <li>Implement task analyzed training procedures</li> <li>Use discrimination training procedures</li> <li>Implement stimulus control transfer procedures</li> <li>Implement prompt and prompt fading procedures</li> <li>Implement generalization and maintenance procedures</li> <li>Implement shaping procedures</li> <li>Implement token economy</li> </ul>		

## **C-1 Skill Acquisition Plan**

C-1		
Identify the essential components of a well written skills acquisition plan	<ul> <li>Skill definition</li> <li>Baseline measurement</li> <li>Clear goals</li> <li>Description of the procedures</li> <li>Reactive strategies</li> <li>Data collection and graphing</li> <li>Plan review</li> <li>Maintenance and termination</li> </ul>	

A skill acquisition plan is written by a supervisor or another BCBA. You are responsible for understanding and performing the items listed above. The following sections will provide more detail on each item.



Skill Acquisition Plan Details		
Skill definition	The definition of the skill acquisition plan is created when the plan is created. It is your responsibility as an RBT to review and understand the definition of the plan.	
Baseline measurement	You are responsible for recording behaviors prior to the intervention to determine the present level of the behaviors. This procedure creates a baseline measurement. The behavior during/after intervention can be compared to the behavior before intervention to determine if the intervention is successful.	
Clear goals	Goals are critical to a skill acquisition plan. The plan contains measurable goals that are clear and concise. By being measurable, all individuals involved in the client's progress can easily determine when a goal has been met.	
Detailed description	Each goal contains a description. The description must be written in a manner that any therapist (RBT, BCcBA, or BCBA) can take over an existing plan and implement it with fidelity. As an RBT it is your responsibility to ask questions about descriptions that may be vague, unclear, or missing from the plan.	
Reactive strategies	Each plan contains goals that address maladaptive behaviors. The plan contains information on how to punish or extinguish these behaviors, as well as the replacement behavior.	
Data collection and graphing	Companies vary on how data is collected. Some companies use paper, others use online programs for data collection. The plan provides information on how the data will be collected, organized, and displayed.	
Plan review	The minimum amount of supervision set by the BACB is 5% of the hours spent with clients and at least twice a month. During the supervision visits, the BCBA will review and update the plan.	
Maintenance and Termination	When a client has met all goals or it is determined that the client's level of functioning is commensurate with the age, termination should be discussed.	



## **C-2 Session Preparation**

C-2		
Prepare for the sessions as required by the skill acquisition plan	<ul> <li>Read the plan</li> <li>Review</li> <li>Client communication</li> <li>Implement</li> </ul>	

Preparing for a session can be simple and easy to implement, or it can be complex and require practice to implement. The BCBA creates the plan for you to implement with the client. When a new plan is created it is recommended that you:

- Gain access to the plan so that you are able to read it before seeing the client
- Practice the interventions listed in the plan to ensure you can run them in the session
- Make note of any areas of the plan about which you have questions
- Set an appointment with your supervision/BCBA to review the plan and obtain clarification on the questions you have about the plan
- Discuss with the supervisor who/how/when the plan is reviewed with the caregivers and/or client
- Make any job aids that may help you run the session
- Obtain all the materials that are needed to run the plan
- Make sure to include data sheets or devices for data collection
- Implement the plan during client sessions

If you have questions during the session, make notes of the questions and follow up with your supervisor after the session. Do not wait until the next supervision.

## **C-3 Contingencies of Reinforcement**

C	-3
Use contingencies of reinforcement	<ul> <li>Unconditioned reinforcement</li> <li>Conditioned reinforcement</li> <li>Unconditioned punishment</li> <li>Conditioned punishment</li> <li>Continuous vs. intermittent reinforcement</li> <li>Schedules of reinforcement and punishment</li> </ul>



#### **Conditioned vs Unconditioned**

Reinforcement or punishment can be conditioned or unconditioned. The difference between the two is: unlearned vs learned. The following table provides more information on the differences between conditioned reinforcements and punishment, as well as conditioned reinforcement and punishment.

	Conditioned vs. Unconditioned		
Unconditioned reinforcement	Reinforcement that is unlearned. These items are things that are needed to live. For example, water, sleep, and food. An individual does not need to "learn" that these items are reinforcement.		
Conditioned reinforcement	Reinforcement that is learned. An individual is not reinforced with a conditioned reinforcer until the item is paired with something that is reinforcing. For example, if someone from a remote village is given a debit card, that card does not function as reinforcement. When the debit card is paired with the ability to gain access to items, the debit card gains reinforcing properties.		
Unconditioned punishment	Punishment that is unlearned. For example, if someone touches a hot stove, he/she immediately removes their finger/hand from the stove. The behavior of touching the stove will most likely decrease. Examples of unconditioned punishment include pain, excessive heat or cold, and loud sounds.		
Conditioned punishment	Punishment that must be learned The item does not possess punishing qualities until the item is paired with something that is punishing. For example, you set a special ringtone on your phone for your mean boss. This way you always know when your boss calls. Everytime your boss calls it never goes well and ends with your boss yelling at you. No matter what you do. After a few calls, your boss's ringtone will be paired with the unproductive talks. When you hear the ringtone, you stop picking up the phone because you don't want to hear the boss yell at you. The ringtone is now conditioned punishment.		

#### **Continuous vs Intermittent Reinforcement**

Reinforcement can be delivered every time a behavior occurs, or it can be delivered for every other response, every three responses, etc..... The difference between continuous and



intermittent is when the reinforcement is delivered. The table below provides an overview of these types of reinforcement.

	Continuous vs Intermittent Reinforcement		
Continuous reinforcement	Reinforcement is delivered for every occurrence of the behavior		
Intermittent reinforcement	Reinforcement that is not given for each instance of the behavior. Intermittent can be delivered on schedules of reinforcement.		

#### Schedules of Reinforcement and Punishment

Schedules of reinforcement and punishment are categorized by two dimensions:

- Fixed vs. Variable how often the reinforcement or punishment is delivered
  - A fixed schedule has a set number of responses to occur before reinforcement or punishment is delivered.
  - A variable schedule has a varied number of responses required before reinforcement or punishment is delivered.
- Ratio vs. Interval on what type of schedule is the reinforcement delivered
  - Ratio indicates the number of responses needed before reinforcement or punishment is delivered.
  - Interval indicates the amount of time that must pass before reinforcement or punishment is delivered.

The following table provides an overview of the four types of reinforcement and punishment schedules.



	Schedules of Reinforcement and Punishment		
Fixed Ratio	<ul> <li>Reinforcement or punishment is delivered on a fixed number of responses</li> <li>Provides a high steady rate of responding with a post reinforcement pause</li> </ul>		
Fixed Interval	<ul> <li>Reinforcement is delivered for the first response after the duration of time has passed since the last correct response</li> <li>Provides an increasing rate of responding at the end of the interval with a post reinforcement pause</li> </ul>		
Variable Ratio	<ul> <li>A variable number of responses are required before reinforcement is provided</li> <li>Provides a high, steady rate of responding</li> <li>The required number of responses varies between responses; however, the average of the response must equal the variable amount</li> </ul>		
Variable Interval	<ul> <li>A variable length of time is required before reinforcement is provided</li> <li>Provides a high, steady rate of responding</li> <li>The required length of time varies between responses; however, the average of the response must equal the variable length of time</li> </ul>		



	Example of Schedules of Reinforcement and Punishment
Fixed Ratio	You want to increase the amount of math problems that a student completes during math. The student is offered 1 minute of recess for every five problems he completes. This is an FR5 schedule Five problems must be completed before reinforcement is provided.
Fixed Interval	A student is completing a reading assignment. The student is able to read; however, she asks for help sounding out words as a function of attention. The teacher has been directed to provide assistance every 5 minutes. This is a fixed interval.
Variable Ratio	While working on homework, your child becomes distracted easily. You offer a piece of candy for an average of every 3 problems. The child receives a piece of candy after 2 problems, 4 problems, and 3 problems. This is a VR3 schedule. The child is reinforced for an average of every 3 responses. The child does not know when the reinforcement will be delivered; therefore, the child will likely complete problems at a consistent rate.
Variable Interval	While working on homework, your child becomes distracted easily. You offer a piece of candy for an average of every 2 minutes. The child receives a piece of candy after 2 minutes, 4 minutes, and 1 minutes, and 2 minutes, 1 minute. This is a VI2 schedule. The child is reinforced for at an average of every 2 minutes. The child does not know when the reinforcement will be delivered; therefore, the child will likely complete problems at a consistent rate.

## **C-4 Discrete Trial Teaching**

C-4	
Implement discrete-trial teaching procedures	A discrete trial is comprised of three components:  1. Instruction 2. Response (or lack of response) 3. Consequence

Discrete Trial Teaching (DTT) is a procedure that:

- Is used for teaching early skills
- Involves specific procedures



The process for conducting a discrete-trial teaching is comprised of the following five parts:

- 1. Therapist presents a stimulus to invoke a response from the client
- 2. Therapist waits a predetermined length of time for the client to respond. Prompting may be needed for the correct response
- 3. Therapist provide reinforcement for the correct response
- 4. Therapist uses a procedure for correcting incorrect responses, as well as extinguishing incorrect responses
- 5. Therapist provide an inter-trial between the end of one trial and the beginning of the next trial

## **C-5 Naturalistic Teaching Procedures**

C-5		
Implement naturalistic teaching procedures	Using the natural environment to direct client sessions	

Naturalistic teaching, or natural environment training (NET), is a branch of ABA that uses the natural environment to facilitate learning. An NET setting can be any environment: therapy room, child's home, playground, or grocery store. NET can take place in any environment and is child-led. The child's interests are used to run the session.

When using naturalistic teaching, you must be aware of satiation and deprivation. The following table provides an overview of satiation and deprivation.

Satiation and Deprivation			
Term	Definition	Example	
Satiation	<ul> <li>Being satisfied and reaching full gratification</li> <li>Value of reinforcers is reduced</li> </ul>	The therapist uses the trampoline at the client's home as a reinforcer during the session. One afternoon the therapist rewards the client with the trampoline; however, the client has no desire to jump on the trampoline. When asked, the mom tells the therapist that the child just left a trampoline park with her cousins. The client is satiated and the trampoline does not have a reinforcing value today.	



Deprivation	access to an item  • Value of	The therapist knows the child loves strawberries. The therapist asks mom to not allow Kaite to have strawberries before therapy. When she arrives, the therapist asks mom to place strawberries in a bowl. The child sees the strawberries and uses this opportunity to request for items.
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## **C-6 Task Analysis**

C-6		
Implement task analysis training procedures	Break down complex skills into smaller steps	

When a skill consists of multiple steps, the skill can be difficult to learn. This skill can be broken down into smaller steps. An individual can learn the small steps of the task, and chain the steps together to complete the overall task. To determine the steps, you can:

- Observe someone completing the task and document the steps
- Employ the assistance of a subject-matter expert to determine the steps in the task
- Complete the task by yourself and document the steps

After the individual steps are learned, chaining is used to link the steps together to complete the complex behavior. The following table provides an overview of chaining procedures that can be used.

Chaining Procedures		Example
Forward chaining	The steps of a task analysis are taught from the first step to the last step. The first step serves as reinforcement for the next step.  The first step is taught until mastery. Then the next step is taught; always beginning with step 1.  This type of chaining is best used when the beginning steps are easier to complete than the later steps.	<ol> <li>How to Mail a Letter</li> <li>Place a stamp on the upper right corner of the envelope.</li> <li>Walk the letter to the mailbox.</li> <li>Open the mailbox and place the letter inside.</li> <li>Close the mailbox.</li> <li>Raise the flag on the mailbox</li> <li>The client completes step 1 independently while the therapist completes steps 2-5.</li> <li>The client completes Steps 1-2</li> </ol>



		<ul> <li>independently while the therapist completes steps 3-5.</li> <li>The process continues until the client can complete all steps independently.</li> </ul>
Cl	naining Procedures	Example
Backward chaining	The task steps are taught in order; however, the client will complete the last step independently. When the last step has been mastered, the client is given the last two steps to complete independently.	<ol> <li>How to Mail a Letter</li> <li>Place a stamp on the upper right corner of the envelope.</li> <li>Walk the letter to the mailbox.</li> <li>Open the mailbox and place the letter inside.</li> <li>Close the mailbox.</li> <li>Raise the flag on the mailbox</li> <li>The therapist completes steps 1-4 while the client completes step 5 independently</li> <li>The therapist completes steps 1-3 while the client completes steps 4-5 independently</li> <li>The therapist completes steps 3-5 independently</li> <li>The therapist completes steps 2-5 independently</li> <li>The therapist completes steps 1-5 independently</li> <li>The client completes steps 1-5 independently</li> </ol>
Total Task Chaining	A chaining procedure that uses prompting to complete all steps of the chain. This procedure is a prompt fading procedure.	How to Mail a Letter  1. Place a stamp on the upper right corner of the envelope. 2. Walk the letter to the mailbox. 3. Open the mailbox and place the letter inside. 4. Close the mailbox. 5. Raise the flag on the mailbox  Therapist prompts the client as needed to complete all the steps of the task analysis.



# **C-7 Discrimination Training**

	C-7
Use discrimination training procedure	<ul><li>Stimulus discrimination</li><li>Response discrimination</li></ul>

Although only stimulus and response discrimination are listed above, there are two other concepts of generalization and discriminations. The following table provides a overview of all four types of discrimination and generalization.

Discrimination and Generalization			
Туре	Description	Example	
Stimulus generalization	Occurs when a specific behavior is evoked by similar stimuli	A child says "doggie" when she sees the family pet, a beagle to which mom responds "Yes, that is our doggie". Mom takes her for a walk. The child sees a Golden Retriever on the walk and says "doggie". Mom responds with "yes, that is a doggie".	
Response generalization	Occurs when functionally equivalent unlearned responses are evoked by the same stimuli	As a child you were taught to greet people by saying "Hello, how are you?" As you got older you changed the phrase used to greet someone based on who you are greeting. The greeting can be "Hello", "Hi", "What's up", "How's it going". All of these are different responses based on similar stimuli.	
Stimulus discrimination	Occurs when an individual can distinguish between one stimulus and another similar stimulus.	A child is learning colors. The child is reinforced when identifying the color red. When another color is shown, and the child responds "red," no reinforcement is provided. The child learns to discriminate "red" from the other colors through the learning process.	
	Discrimination and Generalization		
Туре	Description	Example	



Response discrimination	Occurs when some responses are reinforced while others are not	Your friend from London has moved to Florida and is very excited to go out and explore. You and your friend are out at dinner. Your friend says she needs to wash her hands - she needs to find the loo. When she walks to the back of the restaurant she sees the sign "restroom" and enters to wash her hands.
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#### **C-8 Stimulus Control Transfer**

C-8		
Implement stimulus control transfer procedures	When a behavior evoked by on Sd comes under the control of a different Sd	

Stimulus control refers to the "control" a stimulus has over the occurrence or nonoccurrence of a behavior. The following scenario provides an example of stimulus control.

Example	Stimulus Control
A group of girls are talking and laughing as they walk up the steps. When the first girl opens the door to the library, all of the girls begin to whisper and stop laughing.	The library has stimulus control over the vocal behavior of the girls.

Stimulus control occurs every day in our day-to-day lives. During a session, the therapist may transfer control from the site of cards on the table to the question asked by the therapist.

# **C-9 Prompt and Prompt Fading**

C-9		
Implement prompt and prompt fading procedures	<ul><li>Response prompts</li><li>Stimulus prompts</li></ul>	

Prompts are broken into two categories: response prompts and stimulus prompts. The following table provides an overview of response prompts.



Response Prompts		
Prompt	Description	
Modeling	The task is performed by a therapist to provide a visual demonstration of the task. The model provides learners with imitation skills to attempt to perform the task based on what was learned from the demonstration.	
Physical guidance	The therapist provides partial or full physical guidance "as needed" to assist with the completion of the task.	
Verbal prompting	The therapist uses spoken words, signs, and pictures to prompt the client to complete the task. This is the most commonly used prompting.	

When prompting is used, prompt fading must also be implemented to remove prompting and allow the individual to complete the task without assistance. The following table provides an overview of the types of prompt fading techniques.

Prompt Fading		
Prompt	Description	
Most-to-least	The greatest amount of prompting at the beginning and slowly fade the prompting until the individual is able to complete the task independently. This type of prompting is associated with errorless learning and with the highest level of completion.	
Least-to-most	The type of prompt fading is used with a fixed time interval.  The task is presented to the individual with a fixed time interval in which to respond. If the correct response is provided during the time interval, reinforcement is provided. If no response, or incorrect response is provided, the trial is represented with the least invasive prompt.	
Graduated guidance	Graduated guidance is used with physical prompts. In this type of prompt fading, physical prompting is faded immediately to no physical contact with the client. For example, when prompting to "clap hands", the therapist can physically prompt hand-over-hand and immediately fade to wrists, forearms, and then elbows.	



This type of prompt fading involves increasing the time between the stimulus presentation and the response prompt. For example, a stimulus is presented with a response prompt. The time delay between the presented stimulus and the response increases to 1 second. Reinforcement is provided for a correct response, and incorrect responses are corrected.
a correct response, and incorrect responses are corrected.

# **C-10 Generalization and Maintenance**

C-10		
Implement generalization and maintenance procedures	<ul><li>Stimulus generalization</li><li>Response generalization</li><li>Maintenance</li></ul>	

In C-07 stimulus and response generalization was mentioned. More information on generalization is provided in this section.

Generalization is needed for an individual to be able to use what is learned during sessions - in a particular environment or for a particular stimulus - in different environments and settings.

Generalization		
Stimulus generalization	The same response from a stimulus that shares similar features to the original stimulus.	Example: Molly is taught that her pet, a great dane, is a dog. When she is on a walk with her mother, she sees a dachshund and says "dog".
Response generalization	A different, yet similar, response in the presence of a similar stimuli.	When you greet your mom you may say "hi" or "hello". When you greet your friends you may say "What's up" or "Hey".

Maintenance is the last step for a target behavior in an intervention. Maintenance is the continued reinforcement of a behavior and should be considered from the beginning. If continued reinforcement for a behavior is not maintained, there is a potential for the behavior to return. Support in the natural environment is necessary for the individual to maintain replacement behaviors. Plan for maintenance by creating goals that will support the natural environment.



### **C-11 Shaping Procedures**

C-11		
Implement shaping procedures	<ul><li>Shaping</li><li>Limitations</li></ul>	

Shaping uses differential reinforcement to create new behaviors by providing reinforcement for successive close approximations of the target behavior.

The following are limitation of shaping:

- Shaping can be time consuming if the individual requires many approximations of the target behavior; each instance of the behavior is reinforced. The results from shaping procedures can vary over the implementation of the procedure.
- The therapist must monitor the individual closely to notice slight changes in their behavior in order to reinforce the next approximation.
- The therapist can reinforce unwanted behaviors if the shaping procedure is not implemented correctly.

# C-12 Token Economy

C-12	
Implement a token economy	<ul><li>Characteristics</li><li>Implementation</li><li>Fading</li></ul>

Token economies are used as a reinforcement procedure. Individuals earn tokens by completing tasks or displaying desired behaviors. The tokens are exchanged for an item/event that the individual wants. To implement a token economy correctly, the therapist must:

- Determine the desired behaviors
- Create a reinforcement schedule for token delivery
- Determine how many tokens are needed to exchange tokens for backup reinforcement
- Provide a backup reinforcer that can be exchanged for the tokens

Token economies consist of two stages: implementation and fading. The following table provides an overview of each stage.



Token Economy		
Implementation	<ul> <li>The beginning of the procedure</li> <li>Tokens are given often as reinforcement (continuous reinforcement)</li> <li>Tokens are paired with verbal praise</li> </ul>	
Fading	<ul> <li>The individual knows how the token economy works</li> <li>The interval between tokens is increased slowly</li> <li>The number of token required for the backup reinforcer is increased</li> <li>Backup reinforcers are change to items/activities that occur in the individual's natural environment</li> </ul>	

# **D** - Behavior Reduction

Behavior reduction	<ul> <li>Identify components of a behavior reduction plan</li> <li>Describe common functions of behavior</li> <li>Implement interventions based on modification of antecedents</li> <li>Implement differential reinforcement procedures</li> <li>Implement extinction procedures</li> </ul>

# D-1 Identify the Essential Components of a Behavior Reduction Plan

D-1	
Behavior reduction plan	<ul><li>Must contain replacement behavior(s)</li><li>Uses positive reinforcement</li></ul>

A behavior reduction plan must contain replacement behavior(s) for maladaptive behavior(s). In ABA, positive reinforcement is used to increase the occurrences of the replacement behaviors. Punishment is used only if all other options do not work.



#### **D-2 Functions of Behavior**

D-2	
Describe common functions of behavior	<ul><li>Attention</li><li>Escape/avoidance</li><li>Sensory</li><li>Tangible (access)</li></ul>

The function of a behavior is "why" someone does something. All behavior has consequences that either reinforce (increase) or punish (decrease) the behavior. The are four functions of behavior:

- 1. Sensory
- 2. Escape
- 3. Attention
- 4. Tangible (access)

These functions are used in ABA to determine what is maintaining a behavior and the intervention that can be used to increase or decrease a behavior. The BCBA uses ABC data to determine the function of a behavior. The following are examples of each function.

	Functions of Behavior
Sensory	<ul> <li>Watching TV because it is enjoyable</li> <li>Standing in a hot shower because it feels great</li> <li>Tapping your fingers when you are nervous</li> </ul>
Escape	<ul> <li>Teacher puts a worksheet on the desk and the student complains of a stomachache and goes to the clinic</li> <li>Parent puts the child to bed and the child says she is thirsty to gets out of bed for a drink</li> <li>You take medicine to relieve your headache</li> </ul>
Attention	<ul> <li>One child starts crying when the mom snuggles with her other child.</li> <li>Jackie bought a new dress to wear for her anniversary for her husband to compliment her on the dress</li> <li>Your dog runs to the door when you arrive so you can pet her.</li> </ul>
Tangible (access)	<ul> <li>The child begs his parents for the PS5 until they buy it for him</li> <li>The child cries at the checkout counter for candy</li> <li>You pay your phone bill to have access to call/text your friends</li> </ul>



#### **D-3 Interventions based on Antecedents**

D-3	
Implement interventions based on the modification of antecedents such as motivating/establishing operations and discriminative stimulus	<ul><li>Motivating/establishing operations</li><li>Discriminative stimulus</li></ul>

To implement an intervention based on motivating/establishing operations and discriminative stimulus, you must first understand the difference between the two.

Motivating operations increase or decrease the power of a reinforcer in value. Motivating operations can be thought of in terms of satiation and deprivation. If someone is deprived of X, then X is more reinforcing. If someone is satiated with X, then X will be less reinforcing. A discriminative stimulus indicates that reinforcement is, or may be, available.

Example: You are using cookies as a reinforcer. The cookies are always kept in a blue jar. You sit down to work with your client and you place the blue jar on the table. Your client had a big ice cream cone before he came in. When working with your client, he does not seem to be motivated by the cookies. In this example, the blue jar is a discriminative stimulus that indicates reinforcement of cookies is available. The client had ice cream before he came to work with you. The client is satiated, and therefore the availability of cookies is less reinforcing then it would have been had he not had the ice cream before he came in.

These paragraphs can be summarized as follows:

- Motivating operations depend on deprivation and satiation
- Discriminative stimuli a signal that reinforcement is available

### **D-4 Differential Reinforcement**

D-4		
Implement differential reinforcement procedures	<ul> <li>Differential reinforcement of other behaviors (DRO)</li> <li>Differential reinforcement of alternative behaviors (DRA)</li> <li>Differential reinforcement of incompatible behaviors (DRI)</li> </ul>	



There are several differential reinforcement procedures. The procedures targeted for the RBT exam are DRO, DRA, and DRI. The following table provides an overview of each procedure.

Procedure	Definition	How to Use
DRO Goal is to eliminate a behavior	The target behavior is not reinforced, while <b>other</b> behaviors are reinforced	The client is reinforced when s/he does not engage in the target behavior. The client is reinforced for each interval in which s/he does not call out in class.
DRA Goal is to eliminate a behavior	The target behavior is not reinforced, while the <b>alternate</b> replacement behavior is reinforced	The client is reinforced when s/he does not engage in the target behavior. Any other functional alternative behavior is reinforced.
DRI Goal is to substitute a behavior for the target behavior	DRI is the same procedure as DRA, except DRI reinforces a replacement behavior that cannot be performed at the same time	The client is reinforced when s/he engages in the incompatible behavior. An incompatible behavior is one that cannot be performed at the same time as the target behavior. The student walking around the classroom is reinforced by the teacher when she sits. The student cannot sit and walk at the same time.

# **D-5 Extinction Procedures**

D-5	
Implement extinction procedures	<ul><li>Extinction</li><li>Extinction burst</li><li>Resistance to extinction</li></ul>



Extinction is a procedure in which reinforcement that was previously given to a behavior is withheld - no longer provided. If the behavior is no longer reinforced, the behavior will decrease over time. To implement an extinction procedure properly, the function of the behavior must be determined. Once the function is determined, you can appropriately implement an extinction procedure. This procedure may include ignoring behaviors that are attention seeking, eliminating escape behavior by blocking or following with a demand, removing access to items, or blocking sensory seeking behaviors.

An extinction burst occurs when the target behavior increases in frequency/duration/intensity after the procedure has been implemented. An extinction burst means that the behavior will get worse before it gets better. It is common for parents/teachers to stop a procedure when an extinction burst happens. The parents/teachers do not believe the procedure is "working", while the client is only exhibiting "more" of the behavior to receive the reinforcement that has been withheld for the behavior.

Resistance to extinction occurs when a behavior continues over a period of time when no reinforcement is provided. In resistance to extensions, the behavior occurs at lower rates than before the procedure was implemented and does not have an extinction burst. When intermittent schedules of reinforcement, thinned schedules and variable schedules are used there may be a greater resistance to extinction.

# **D-6 Crisis/Emergency Procedures**

D-6	
Implement crisis/emergency procedures according to protocol	Crisis/emergency procedures

When a client exhibits self-injurious behaviors or harm to others has been observed, a crisis/emergency plan is created. A crisis/emergency plan should be discussed with the team and caregivers to ensure everyone is aware of the tasks that are involved in the plan, as well as addressing all contingencies. The plan may include physical redirection or restraint, and additional training may be required for the staff. It is important to review the plan with the team to make sure everyone is still aware of the interventions used in the plan.

# **E - Documentation and Reporting**



Documentation and reporting	<ul> <li>Effectively communicate</li> <li>Seek clinical direction</li> <li>Report on variables</li> <li>Create objective sessions notes</li> <li>Comply with all legal requirements for data collection and storage</li> </ul>
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### **E-1 - Effectively Communicate**

E-1	
Effectively communicate with a supervisor in an ongoing manner	Meetings

As an RBT you will meet with your supervisor at least twice each month. Some RBTs may meet with supervisors as much as once per week. The purpose of the meetings is to keep the supervisor aware of the services that are provided, as well as to monitor the behavior of the clients. The supervisor is responsible for creating the plan and ensuring that it is implemented appropriately.

### **E-2 - Seek Clinical Direction**

E-2	
Actively seek clinical direction from supervisor in a timely manner	Communication as needed

As stated above, a RBT will meet with a supervisor at least twice per month. During these meetings it is critical to ask questions and gain support in areas in which you need to improve. In addition to the meeting, a RBT should seek direction from the supervisor for any topics for which the RBT requires help. The RBT should ask questions using email, text, or a phone call. In addition, if a caregiver asks a question to which you do not have the answer, you should direct these questions to the BCBA immediately. Do not wait until the next supervision.



### **E-3 - Report on Variables**

E-3	
1	Reporting on variables that create a non-productive session

As an RBT, you should know how to gather data on target behaviors. In some cases, there may be other factors that relate to how the client is performing. These factors should be reflected in your sessions notes as well as discussed with the supervisor. Some factors may include medications, locations, or illness.

# **E-4 - Objective Session Notes**

E-4	
Generate objective session notes for service verification by describing what occurred during session in accordance with applicable legal, regulatory and workplace requirements.	Reporting on variables that create a non-productive session

Session notes for a client are written to describe what happened during the session. Notes are written in a manner that is unbiased and objective. The notes indicate:

- Where the session was held
- Who was involved in the session
- The activities that occurred during the sessions
- Any relevant information that should be considered when reviewing client session notes
- The notes are not written from the perspective of the RBT, but are written as an observer of the session, and does not include "mentalistic" statements.

The following table provides an example and non-example of session notes.



Session Notes	
Example	Non-Example
Tara was seen at home for 2 hours on January 11, 2020. The caregiver participated in the session for the first 30 minutes. Tara worked alone with the therapist for the remaining 1.5 hours.	I saw Tara at her house for 2 hours. Her mom sat at the table with us for 30 minutes, but did not help. After her mom left, Tara was a little off, and didn't want to do anything.

# **E-5 - Comply with Applicable Legal Requirements**

E-	-5
Comply with applicable legal, regulatory, and workplace data collection, storage, transportation, and documentation requirements.	Retaining client files

The BACB states that all client documentation must be kept for a minimum of 7 years. Some state/local laws may require a longer retention policy. Please be knowledgeable about the laws for the area in which work. Also ensure that client confidentiality is maintained at all times.

# **F - Professional Conduct and Scope of Practice**

Professional conduct and scope of practice	<ul> <li>Describe role of RBT</li> <li>Respond appropriately to feedback</li> <li>Communicate with stakeholders</li> <li>Maintain professional boundaries</li> <li>Maintain client dignity</li> </ul>



#### F-1 - Describe Role of RBT

F-1	
Describe the BACB's RBT supervision requirements and the role of RBTs in the service-delivery system.	

RBTs are certified paraprofessionals that provide behavior analysis services. RBTs provide direct services, implement behavior intervention and skill acquisition plans, collect and input data, communicate with families as needed, maintain professional relationships, and may assist with functional assessment and individualized assessment procedures. RBTS are not responsible for creating assessment reports or intervention plans.

RBTs must maintain ongoing supervision, as per BACB requirements. The following table provides an overview of the BACB requirements.

BACB Requirements	
RBTs must work under the close supervision of a qualified RBT Supervisor or RBT Requirements Coordinator	A supervisor can be a BCaBA or BCBA. RBTs can also be supervised by a non-certified RBT supervisor, but that supervisor must supervise under the direction of an RBT Requirements Coordinator. The non-certified RBT supervisor must also apply through the BACB and meet certain requirements to qualify.
RBTs must be supervised for at least 5% of the hours that the RBT has provided behavioranalytic services per calendar month.	A supervisor must meet with the RBT for at least 5% of the hours provided by the RBT. For example, if the RBT worked 80 hours for the month of January, at least 4 of those hours supervision is required by the BCBA.



RBTs need at least 2 face to face, real-time contacts per month with a supervisor.	Of the two required meetings, one meeting must be an observation of the RBT providing behavior analysis services. Supervision can be done through video; however, any internet-based supervision must comply with applicable laws. Supervision can be done in a group format (no more than 10 people), but at least two of the supervision meetings must be individual.
Supervision activities cover the items on the RBT task list.	Activities appropriate for supervision include:      Observing an RBT provide behavioral analysis services     Providing behavioral skills training and performance feedback     Modeling technical, ethical, and professional behavior     Reviewing documentation, such as data sheets and progress notes     Developing performance expectations     Evaluating effects of behavior analysis service delivery
RBTs cannot provide behavior analysis services without a supervisor.	To provide ABA service, an RBT must have an active supervisor. If the supervisor not assigned to an RBT, services must be placed on hold until a supervisor is available.



RBTs and their supervisor must also maintain documentation of supervision, that include the day and time of supervision, format of supervision, name of those present, and any other relevant documentation (e.g. session notes).

RBTs must renew their certification on an annual basis. To renew certification, RBTs must complete the following no more than 45 days before the expiration date:

- Complete competency assessment, overseen by a qualified RBT supervisor
- Complete RBT renewal application
- Pay renewals fees

### F-2 - Respond Appropriately to Feedback

F-2	
Respond appropriately to feedback and maintain or improve performance accordingly	<ul><li>Responding to feedback</li><li>Improving performance</li></ul>

RBTs are provided feedback on their performance during supervisions. Qualified RBT supervisors, like BCaBAs and BCBAs, have extensive training in behavior analysis, and are responsible for creating intervention plans and program updates. When a supervisor gives you feedback, it is important to understand that the feedback is intended to improve the quality of behavior analysis services provided to the clients. Additionally, it is the ethical responsibility of RBTs and behavior analysts to ensure that services are effective.

If feedback is provided by a supervisor during a session, it is crucial to understand why the feedback was provided. The supervisor's role is to ensure that programs are being run smoothly, and that behavior analytic services are effective. If the supervisor observes an RBT implementing a program or responding to a behavior incorrectly, it is the supervisor's responsibility to ensure feedback is provided to improve the performance of the RBT, and to improve the effectiveness of the intervention.



For example, if a client's tantrum behavior is maintained by attention, and you were to hug the client every time they engage in tantrum behavior, then the supervisor will need to provide feedback to ensure that you are not reinforcing the tantrum behavior.

It is also your responsibility to improve performance accordingly. Behavior analysis services are effective when provided correctly. Of course, there should be open communication between you and your supervisor. You should ask questions to your supervisor, or make suggestions if applicable. For example, if the BCBA suggests using candy as a reward to improve compliance with a client, but the client's parent informed you that they do not want their client to have candy, then you should communicate that with the supervisor. However, RBTs should never implement interventions without approval from the supervisor.

#### F-3 - Communicate with Stakeholders

F-3	
Communicate with stakeholders (e.g. family, caregivers, other professionals) as authorized	<ul><li>Stakeholder feedback</li><li>When to refer communication to a supervisor</li></ul>

RBTs are on the frontlines of behavior analysis services and are usually the first point of contact for many stakeholders (e.g. teachers, caregivers). It is important to communicate in a professional manner. Additionally, RBTs should never provide feedback that is out of their scope of practice. For example, if a caregiver is asking specifics about a behavior plan, then you should refer the caregiver to the supervisor.

RBTs should always provide session specific feedback to the caregiver. For example, at the end of your session, you should tell the caregiver how the client did. In your feedback, include examples of some of the skills the client accomplished, any maladaptive behaviors that occurred and how you managed those behaviors, and any medical or environmental concerns (if applicable). Feedback should be brief, objective, and easy to understand. If it's a client that is seen frequently, you should switch up your feedback each time so that it is not redundant (parents might feel discouraged if they are



given the same feedback). You should also end your feedback on a good note.

The following is an example of session specific feedback:

"Danny had a great session today! We worked on labeling different pictures. He labeled for the firsttime cat, dog, Mom, and Dad. He engaged in a brief tantrum when it was time to transition to the bathroom, but I followed through with the demand, and once he transitioned to the bathroom, he stopped crying. He even peed in the potty! I gave him lots of praise and a piece of chocolate. He was laughing and smiling! It was a great day!"

RBTs should also communicate with stakeholders the following:

- Any medical or environmental concerns that arise during session (e.g. client is sick, a sibling is interrupting session)
- If you need help with something (e.g. client needs a snack, client needs to be changed)
- Session specific feedback

At times, stakeholders may ask specific questions that you cannot answer or change on the client's program, as it is out of your scope of practice. In this case, you should refer the stakeholder to your supervisor. Examples of these scenarios include:

- Questions about scheduling
- Questions about behavior intervention plans
- Insurance questions
- Questions about specific programs

If a stakeholder informs you that they would like for you to work on a specific skill during a session, one that is not in the program, you should refer the concern to the supervisor. For example, if the client's caregiver says that their child cannot tie their shoes, and they would like tying shoes to be added to the program, advise the caregiver that you will inform the BCBA of this concern. If a caregiver tells you that the client started taking a



new medication, tell the caregiver that you will let the BCBA know so that it can be added to the client's graphs.

When in doubt, always tell the stakeholder that you will speak to your supervisor, and then let your supervisor know of the concern

#### F-4 - Maintain Professional Boundaries

F-4		
Maintain professional boundaries (e.g., avoid dual relationships, conflicts of interest, social media contacts).	<ul> <li>Dual relationships and conflicts of interest</li> <li>Social media</li> </ul>	

Maintaining professional boundaries is necessary to provide effective behavior analysis services. When boundaries are blurred, caregivers or other stakeholders may take advantage.

A dual relationship is when more than one relationship exists between the RBT and client, outside of the role of behavior analysis. Examples include:

- Providing services to your family member or friend
- Providing services to your boss or coworker
- Providing services to your student or teacher
- Providing services to a business associate

We do not enter a therapeutic relationship when there is a dual relationship. However, dual relationships and conflicts of interest can develop. Examples include:

- Accepting gifts
  - This could constitute a friendly relationship, or in some instances, bribery
- Dating or having sexual relationships with your client
- Providing or accepting professional services
  - Going to your client's dentist office for a cleaning
- Attending events with client
  - Birthday parties, dinner



- Extensive conversations unrelated to session specific goals
- In depth conversations about personal issues not related to the client.

RBTs should also never follow, friend, or communicate with any clients on social media. Doing any of those actions results in a dual relationship.

There are many ways we can prevent dual relationships and conflicts of interest. Think of these as antecedent strategies to maintain professional boundaries. The following list provided a list of antecedent strategies

- Remind your supervisor to share the no gift giving policy with clients
  - Some companies may share a document with clients to inform them of the no gift giving policy.
  - You may also politely remind your client ahead of any holidays that there is a no gift giving policy
  - Avoid sharing your birthday or any big events (e.g. weddings, engagements) to avoid any awkwardness. Weddings may be inevitable, especially if you're taking time off. If this is the case, remind your clients of the no gift giving policy
- Do not share your personal email or phone number.
  - If your company requires RBTs to be the ones to contact families in the event of last-minute cancellations or reschedules, or vice versa, get a separate phone number devoted only to work (e.g., Google voice).
- Keep social media accounts private.
- Model appropriate conversations, and do not share personal information

# F-5 - Maintain Client Dignity

F-5	
Maintain client dignity	<ul><li>What is client dignity</li><li>How to maintain dignity</li></ul>

Client dignity is simple. Show respect for your clients. How do we maintain dignity? Think about your client's needs and respect them. Do not yell at



your clients, don't talk badly about them, don't talk down to them, and understand that they have feelings, too. The following list provides some examples of how we can maintain client dignity:

- Giving client privacy when they are changing or using the bathroom
- Allowing the client to make their own decisions and choices
- Respecting the client's wishes
  - For example, if an 18-year-old client vocalizes that they won't want people to know that they have an autism diagnosis, then don't talk about it in front of others.
- Share information only with the client and appropriate stakeholders
- Do not share information without consent
- Do not post about the client on social media
- Do not talk about your client with others
- Do not talk badly about your client in front of others, including the client.
- Consider the risk of harm when implementing interventions
- Consider the rights of your clients

There are many ways for us to maintain client dignity. Always ask yourself: Is this fair, is this safe, am I maintaining privacy, and would I be okay if this were happening to me?

Remember that our clients are human with valid feelings. Follow the golden rule: Treat your client as you want to be treated.

The following table provides an overview of scenarios:

Scenario	Response
You're providing ABA therapy for your 18 year old client. Part of therapy is vocational training, where you attend work with your client. Your job is to stay on	Respect your client's wishes. If the only stakeholder that needs to know your role is the client's boss, then only the client's boss should know why you're there. Do not wear any



the sidelines, and only provide feedback when needed. Your client tells you they like having you there for support, but to not tell anyone, but his boss, why you're there. What do you do?

clothing that indicates you provide ABA therapy (e.g. no company t-shirts, or cute "Best RBT ever" t-shirts).

You provide services in school for a 9 year old boy. One of his classmates comes up to you and asks who you are and why you're there. How do you respond?

The classmate is not a stakeholder, so make it up. You can say something like, "I'm helping the teacher," or "I'm a friend." It can be any answer as long as it is appropriate, and does not give away who you are.

While at the playground with your client and their mom, your client starts playing with a new peer. This peer's mom introduces herself to you and the client's mom. How do you introduce yourself back?

Again, this person is not a stakeholder. Be polite, shake their hand, and say your name. You do not need to tell them why you're there. Sometimes, someone may ask, "Are you their aunt," or "Are you their father." Make it up an answer such as "I'm a family friend," or "I'm their cousin."