



Registered Behavior Technician Course

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Program Information

This training program is based on the Behavior Analyst Certification Board (2018) RBT task list (2nd ed.) and is designed to meet the 40-hour training requirement for the RBT credential.

The program is offered independent of the BACB.



Remember!

- Active Listening
- Quiz
- Competency Assessment





Shaping

- The process of differentially reinforcing successive approximations to a target behavior, aka the terminal behavior.
- **Differential Reinforcement** is when a reinforcer is provided for a specific quality of behavior and withheld for behaviors or responses that do not match that quality.



Shaping

- The terminal behavior is the end product of shaping.
- i.e. spotless dish

Successive Approximations

- Successive approximations bring the learner closer and closer to the terminal behavior.
- i.e. [cu] [coo ee] [cookie]
- The successive approximations are steps to reach that terminal behavior.

Why use it?

- Shaping is used to teach learners new behaviors.
- It is used to shape speech behavior by reinforcing specific lip, mouth movements, sound and word productions.
- Shaping is used to build play skills by reinforcing a learner's ability to touch a toy, manipulate it and then play with it functionally.

Why use it?

- Used to build social interaction by reinforcing eye contact, greetings and conversations.
- Used to build any skill in which one behavior is reinforced while an old response behavior is no longer reinforced.

Why use it?

- i.e. when teaching a learner to produce sounds.
- First, you may reinforce spread lip movement without a sound until the learner is able to do this skill readily.
- The RBT would only reinforce spread lip with an [ee] sound and no longer reinforce spread lips.

Successive Approximations

- Some behaviors require several successive approximations while others may only need a few.
- If a systematic approach is used properly then shaping can be very successful.
- May be time consuming since predetermined levels of the behavior need to be developed prior to teaching.

Here's a great Example!

- Used by Wolf, Risley and Mees (1964) in shaping a child's behavior in wearing eyeglasses
- First, touch glasses, then pick it up, putting the glasses up to his face, then finally placing the glasses on his face
- This was shaped gradually until they were able to target the terminal behavior

(Cooper p. 422)

New Foods

- This is an approach we have used on children that have a difficult time with new foods



Keep in Mind...

- Can be challenging
- Lack of consistency.
- Specific variations of the behavior must be detected and reinforced.
- Different therapists reinforce different variations which could result in slower progression.
- Ensuring the team understands each level accordingly and is trained in detecting the right level of that specific successive approximation.

Differential Reinforcement

- Differential reinforcement plays an important role in shaping.
- Reinforcement is not delivered until the specific quality of the behavior is achieved.
- i.e. a learner that says “cookie” is now saying “I want cookie”. Each time the learner says “I want cookie”, cookie is provided.
- However, if the learner says “cookie”, the reinforcer should not be given.

Shaping...

Shaping can be used to gradually improve the form, frequency, latency, duration and magnitude of a behavior.

- **Form/topography** - throwing a ball
- **Frequency** - number of math questions
- **Latency** - Following instructions
- **Duration** - On-task behavior
- **Magnitude** - Voice volume

Form & Topography

- Throwing a ball
- i.e. basketball, golf



Frequency

- Math questions
- i.e. learner does one question, then two questions, so on



Latency

- Following instructions
- i.e. crossing the street 30 seconds after the walk signal lights up



Duration

- On-task behavior
- i.e. sitting at the table



Magnitude

- Voice volume
- i.e. quiet voice Vs. loud voice



Challenges & Limitations

- Lack of consistency among staff
- Misuse of shaping, shaping the wrong behaviors.
- Dangerous behaviors can be shaped (attention seeking behaviors).



Pryor's 10 Laws of Shaping

1. Raise criteria in increments small enough, allows the learner to have a realistic chance of reinforcement
2. Train one aspect of any particular behavior at a time
3. Put the current level of response on the variable ratio schedule of reinforcement
4. When introducing a new criterion, relax the old ones
5. Stay ahead of your client

Pryor's 10 Laws of Shaping

6. Don't change trainers midstream
7. If the procedure is not progressing, find another
8. Don't interrupt a training session
9. If behavior deteriorates, "go back to kindergarten"
10. End each session on a high note

(Cooper p. 428)

In Practice



Shaping and Vocal Behavior

- Determine the terminal goal
- Determine the successive approximations
- Differential Reinforcement
- i.e. Cookie

In Practice

Shaping and Vocal Behavior

- Determine the terminal goal
- Determine the successive approximations
- Differential Reinforcement
- i.e. May I please have some cookies



In Practice

Shaping and Pitch/Volume

- Determine the terminal goal
- Determine the successive approximations
- Differential Reinforcement
- i.e. Quiet talking versus loud talking versus high pitch



In Practice

Shaping and Pitch/Volume

- Fleece and colleagues (1981) used shaping to increase voice volume of two children
- The children were inaudible
- The children were required to recite a nursery rhyme in front of a voice device that lit up brighter with higher voice volumes and dimmed down with low volume

(Cooper p. 422)

In Practice

Shaping and coming back to the table

- Many learners have a difficult time coming back to the table
- They will often engage in problem behaviours
- Shaping is a great procedure to use, call the learner to the table, then let them go immediately
- Call the learner to the table and let them sit for 5 seconds and gradually increase the time
- Once they are sitting for 5-10s you can begin introducing some demands

Video Model

My little guy...

- Andy had severe behaviors
- The teachers and core resource teacher were helpless.
- We shaped his return to the table and got him to successfully complete an entire math worksheet



Chaining

Chaining

- Chaining is an important procedure of ABA.
- It is a way to link behaviors.
- A behavior chain is a specific response that is associated with a stimulus.
- This stimulus-response chain sequence results in a terminal behavior.



Behavior Chain

- Each stimulus-response sequence makes up a part of the behavior chain
- Each response produces a stimulus change that also serves as a reinforcer for that response
- That same response also acts as an S^D for the next response

Let's break it down!

S	Response	Conditioned Reinforcer
"Wash your hands"	Pumps soap	Soap on hands
Soap on hands	Turns on water	Water running
Water running	Wets hands	Hands are wet
Hands are wet	Get paper towel	Hands are dry

In Practice

- Teach new behaviors by chaining the stimulus and response
- Teach a variety of behaviors such as verbal behavior, routine activities and other complex behaviors
- i.e. picking up a pencil and drawing on paper

Chaining



Two types of behavior chain methods:

- Forward chaining
- Backward chaining

Forward Chaining

- Starts the procedure with the first behavior in the sequence, then reinforce.
- Once acquired, teach the second from the beginning and so on.
- The RBT will complete all the steps following the first behavior.
- Some behaviors need to be taught with the first behavior sequence because it makes sense
- i.e. driving a car

Backwards Chaining

- Starts the procedure with the **last** behavior in the sequence.
- With a backward chain, reinforcement is provided at the end of the chain when the child has completed the target step.
- The trainer will complete all steps of the sequence and stop at the end for the learner to complete the target behavior in the chain.

Early Learner



- Simple chains
- For example, just putting on jacket.

Intermediate Learner



- Multiple steps in the sequence
- For example, jacket, shoes, hat and scarf

Advanced Learner



- Complex sequence
- For example, undressing, dressing, teeth brushing, eating breakfast and so on.

Preparing for a Task Analysis

- Remember, a behavior chain has a series of sequences.
- A behavior that has many components to it such as hand washing or dressing routines is a behavior chain and would most often require a task analysis to break it down.

Preparing for a Task Analysis

- What is a task analysis?
- What are the steps of the task analysis?
- Are they suitable steps for the learner?
- Set a mastery criteria
- Prepare your data sheet with a proper legend
- How will you prompt the learner? Verbal, gestural, etc.
- Run a task analysis



Task Analysis

- Breaks the behavior chain into smaller steps.
- To determine these steps, one can conduct the routine task and write down the steps.
- Or watch someone else doing the task and take note of the steps.

Task Analysis

- A task analysis should have a legend:
- For example:
P = Prompted I = Independent
V = Verbal G = Gestural

Task Analysis

- Determine your prompt level according to the learner. Will it be hand over hand? Will it be a gestural prompt?
- On the probe, mark down whether the behavior was prompted or completed independently. Give the learner 3s to engage in the behavior.
- All the other behaviors in the chain should be completed by the trainer using a hand-over-hand method. This is to minimize errors.

Criterion

- Determine the criterion for mastery of each behavior in the sequence.
- i.e. when the learner independently and accurately completes the behavior 3 consecutive times, the skill is acquired and move to next step.

Forward Chaining

- Forward chain task analysis for writing the word “car”.
- The learner is required to do the first step, then prompt all steps, mark the data.
- If the learner is unable to do the first step, mark (P) or (-), if they were able to mark (I) or (+).

Forward Chaining

1. Pick up pencil using a pincer grip ←
2. Place tip of pencil on paper
3. Write the letter C
4. Move tip of pencil and hand slightly to the right
5. Write the letter A
6. Move tip of pencil and hand slightly to the right
7. Write the letter R

Forward Chaining

- After the behavior has been acquired, refer back to your mastery criterion.
- Start the next step and so on.



Forward Chaining

1. Pick up pencil using a pincer grip
2. **Place tip of pencil on paper** ←
3. Write the letter C
4. Move tip of pencil and hand slightly to the right
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Forward Chaining

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Forward Chaining

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2. Place tip of pencil on paper
3. Write the letter C
4. Move tip of pencil and hand slightly to the right
- 5. Write the letter A** ←
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5. Write the letter A
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- 7. Write the letter R** ←

Video Model

Backwards Chaining

- Backward chain task analysis for drawing a square.
- Prompt all steps using hand-over-hand and at the final step allow your learner to do it without assistance.
- If they do not engage in the behavior within 3s, mark as prompted.

Backwards Chaining

1. Pick up the pencil
2. Place tip of pencil on the paper
3. Draw a vertical line down
4. Place pencil on the top of the vertical line
5. Draw a horizontal line from the left to right
6. Place pencil on the end of the horizontal line
7. Draw a vertical line down
8. Place pencil on the end of the vertical line on the left side
9. **Draw a horizontal line from left to right** ←

Backwards Chaining

1. Pick up the pencil
2. Place tip of pencil on the paper
3. Draw a vertical line down
4. Place pencil on the top of the vertical line
5. Draw a horizontal line from the left to right
6. Place pencil on the end of the horizontal line
7. Draw a vertical line down ↓
8. **Place pencil on the end of the vertical line on the left side**
9. Draw a horizontal line from left to right

Backwards Chaining

1. Pick up the pencil
2. Place tip of pencil on the paper
3. Draw a vertical line down
4. Place pencil on the top of the vertical line
5. Draw a horizontal line from the left to right
6. Place pencil on the end of the horizontal line
7. **Draw a vertical line down** ←
8. Place pencil on the end of the vertical line on the left side
9. Draw a horizontal line from left to right

Video Model

Backwards Chaining

- Backward chaining with leaps ahead allows for some steps to be probed and if mastered can move to the next step; therefore, reducing training time.

Behavior Chain

How do you determine a chain?

- Watch someone do the behavior sequence
- Consult with experts or those skilled at the behavior
- Do it yourself

(Cooper p. 437)

Task Analysis

Task: Gets Pencil			
Instruction: "Get your pencil"		CR: Mike will engage in each step within 3 seconds.	Mastery: 3 consecutive days of 100%
Learner: Mike			
Date	March 1	March 2	March 3
1. Gets out of seat	P	P	P
2. Walks to shelf	P	P	P
3. Pulls out pencil of pencil holder	P	P	I
4. Walks back to table	P	I	I
5. Sits down in chair	I	I	I
Percentage Correct			

Keep in Mind!

- Avoid using verbal prompts during the task analysis.
- Children rely on those prompts and wait for them.
- Reinforce using a small pieces of edible without verbally praising during a forward chain so you don't break the momentum of the task analysis.
- Reinforce at the end of the backward chain.
- Always pair verbal praise at the end of the chain.

Keep in Mind!

- Remember to prompt all the steps that are NOT targets.
- Do not prompt steps that have been acquired previously.
- Avoid going too quickly or guessing about whether or not the learner is able to do the behavior in the chain.

Chaining

- Chaining can be used for many behaviors. Behaviors that are linked together
- i.e. riding a bike, crossing the road.
- Chaining can also be used to teach language such as chaining sounds to form words or words to form sentences.
- i.e. teaching the learner to says “water”, “want water”, “I want water”.

Chaining

- When using chaining to teach language, it is best to use a backward chain because it will flow more naturally.
- i.e. teaching “I want water” as shown previously rather than teaching “I”, “I want”, “I want water”.
- The learner will often sound choppy when talking.

Unwanted Behaviors

- Inappropriate mands i.e. I want chip ya, no purple
- Responding inappropriately to questions
- i.e. “Do you want to play on the computer”, Learner screams and says “no computer, you screamed”, then wants the computer

Unwanted Behaviors

- Chaining self stimulatory behaviors during teaching
- Chaining problem behaviors in a skill sequence



Video Model

What to Do...

- When problem behaviors are chained, they must be undone
- Teaching appropriately with the use of error corrections will reduce these unwanted chains

Video Model

Behavior Chain

- Martin and Pear (2003) broke a chain of excessive eating by teaching the learner to place their utensil down for 3-5s before taking the next bite



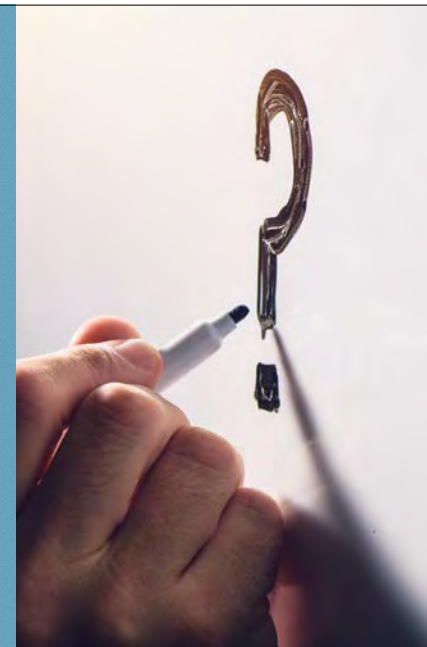
(Cooper p. 429)

Limited Hold

- Behavior chains with a limited hold is when a sequence of behavior must occur within a specific time
- i.e. getting dressed within 5 minutes



Quiz Time!



Questions

What procedure reinforces one behavior then the next behavior without withholding reinforcement on previous behaviors?

- A. Chaining
- B. Shaping
- C. Reinforcement
- D. Terminal Behavior

Answers

What procedure reinforces one behavior then the next behavior without withholding reinforcement on previous behaviors?

- A. Chaining**
- B. Shaping
- C. Reinforcement
- D. Terminal Behavior

Questions

The RBT is prompting all the steps during shoe tying then letting Billy pull his laces tight. What method of teaching is she using?

- A. Backward Chaining
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Answers

The RBT is prompting all the steps during shoe tying then letting Billy pull his laces tight. What method of teaching is she using?

- A. Backward Chaining**
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Questions

The RBT is reinforcing only when Billy says “Cookie please” and not when he says “cookie”.
What procedure is she using?

- A. Backward Chaining
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Answers

The RBT is reinforcing only when Billy says “Cookie please” and not when he says “cookie”.
What procedure is she using?

- A. Backward Chaining
- B. Forward Chaining
- C. Shaping**
- D. Reinforcement

Questions

What procedure reinforces one behavior while not reinforcing a previous behavior?

- A. Chaining
- B. Shaping
- C. Reinforcement
- D. Terminal Behavior

Answers

What procedure reinforces one behavior while not reinforcing a previous behavior?

- A. Chaining
- B. Shaping**
- C. Reinforcement
- D. Terminal Behavior

Questions

The RBT is teaching Billy to wash his hands. She prompts the first 4 steps and allows him to complete the rest of the steps independently. What method is she using?

- A. Backward Chaining
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Answers

The RBT is teaching Billy to wash his hands. She prompts the first 4 steps and allows him to complete the rest of the steps independently. What method is she using?

- A. Backward Chaining**
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Questions

The RBT is teaching Billy to write his name. She allows him to do the first letter then verbally prompts the rest of the letters in his name. What methods of teaching is she using?

- A. Backward Chaining
- B. Forward Chaining
- C. Shaping
- D. Reinforcement

Answers

The RBT is teaching Billy to write his name. She allows him to do the first letter then verbally prompts the rest of the letters in his name. What methods of teaching is she using?

- A. Backward Chaining
- B. Forward Chaining**
- C. Shaping
- D. Reinforcement

Questions

What are the steps called in a shaping procedure?

- A. Behavior Chain
- B. Successive Approximations
- C. Terminal Behavior
- D. Differential Reinforcement

Answers

What are the steps called in a shaping procedure?

- A. Behavior Chain
- B. Successive Approximations**
- C. Terminal Behavior
- D. Differential Reinforcement

Questions

What is the name of the end goal in shaping?

- A. Chaining
- B. Shaping
- C. Reinforcement
- D. Terminal Behavior

Answers

What is the name of the end goal in shaping?

- A. Chaining
- B. Shaping
- C. Reinforcement
- D. Terminal Behavior**

Questions

Chaining is...

- A. Reinforcing a new behavior while not reinforcing another
- B. Successive approximations
- C. Links between behaviors
- D. Differential reinforcement

Answers

Chaining is...

- A. Reinforcing a new behavior while not reinforcing another
- B. Successive approximations
- C. Links between behaviors**
- D. Differential reinforcement

Questions

A behavior chain is a...

- A. Specific response that is associated with a stimulus
- B. Successive approximations
- C. Specific stimulus
- D. None of the above

Answers

A behavior chain is a...

- A. Specific response that is associated with a stimulus**
- B. Successive approximations
- C. Specific stimulus
- D. None of the above

Questions

Shaping uses...

- A. Specific response that is associated with a stimulus
- B. Successive approximations
- C. Differential Reinforcement
- D. Both B and C
- E. All of the above

Answers

Shaping uses...

- A. Specific response that is associated with a stimulus
- B. Successive approximations
- C. Differential Reinforcement
- D. Both B and C**
- E. All of the above

Questions

A task analysis

- A. Specific approximations
- B. Breaks a skill down into smaller steps
- C. Differential Reinforcement
- D. Both A and C
- E. All of the above

Answers

A task analysis

- A. Specific approximations
- B. Breaks a skill down into smaller steps**
- C. Differential Reinforcement
- D. Both A and C
- E. All of the above

Visual Schedules



Visual Schedules

- A visual representation to organize the steps and help a learner successfully remember all the steps
- i.e. checklist, Picture Visual Schedules



Visual Schedules

- Checklist of the day
- Simple textual list of the day
- Activities in order
- Helps the learner anticipate next task



Visual Schedules



- Hand washing
- Dressing
- Home routine
- Homework routine
- Circle time
- and more...

Hand Washing



Daily Routine



Independent activity Schedules

- Create a checklist of the bins or folders the learner is required to do
- They can check off their own work
- Focusing on independence

Video Model



References

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007).
Applied behavior analysis (2nd ed.). Columbus, OH: Merrill Prentice Hall.