

Skill Repertoire Building I

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WHAT'S COVERED

This lesson will review the content from Unit 3: Skill Repertoire Building I by defining and discussing the following:

1. Discrete Trial Training (DTT)
2. Discrimination Training
 - a. Simultaneous Discrimination Training
 - b. Successive Discrimination Training
 - c. Conditional Discrimination Training
3. Natural Environment Training (NET)

1. Discrete Trial Training (DTT)

Discrete trial training (DTT) is a teaching method with a clear beginning, middle, and end used to promote learning new skills. It is made up of the three-term contingency:

- the antecedent, referring to the discriminative stimulus (\mathcal{S}^D) and/or motivating operation (MO)
- the response
- the consequence

Video Transcription

Eyes on me. Thank you. Good job. What letter?

G.

Good. G. Last one, what letter?

D.

D. Good job, buddy! Look, we got toys. Good job. Give me five. Awesome!

Here is a review of the key terms related to DTT:

Key Term	Definition
Discriminative Stimulus (SD)	A stimulus in the presence of which a particular response will be reinforced and in the absence of which that response will not be reinforced.
Motivating Operation (MO)	A condition or physical state that alters the effectiveness of a reinforcer by making the reinforcer either more (in the case of an establishing operation, or EO) or less (in the case of an abolishing operation, or AO) reinforcing. It can evoke responses that produce that item or activity.
Response	The patient's behavior that occurs after the presentation of the antecedent (SD).
Consequence	The outcome that occurs immediately following the patient's response.
Reinforcement	Immediate presentation of a desired stimulus or removal of an aversive stimulus that increases the future frequency of a response. Something that occurs after a behavior that makes that behavior more likely to occur in the future.
Positive Reinforcement	Occurs when the patient is given something desirable when the behavior occurs.
Negative Reinforcement	Occurs when the patient has something undesirable that is taken away when the targeted behavior occurs.

Video Transcription

Easton, touch D.

Yeah, yeah.

Good! Nice job.

Tucker, touch D.

D!

Oh, nope. Try again. Touch D.

D!

Good! There it is. Good job.

Good job. High five, my friends. You did awesome. Easton, high five. Good. Tucker, high five. Nice! Well done. Easton, you got all of your tokens. You worked for the ball! Tucker, what would you like, bud? We have one more gummy bear, or we have Skittles, or Mike and Ikes, or M&Ms. What would you like?

Skittles.

You want a Skittle? Nice job, buddy. I'm going to give you orange.

Yeah.

Ryan.

[CHILD EXCLAIMING]

[LOUD DIGITAL TONE]

[INAUDIBLE]

Can I turn it down?

Yeah.

I press the volume, and [INAUDIBLE].

Recall that primary (also unlearned or unconditioned) reinforcers are things that reinforce our behavior from birth. Because they do not have to be learned, they are considered unconditioned reinforcers. Secondary (also learned, or conditioned) reinforcers are things that become reinforcers because they have been paired with other reinforcers.

Continuous reinforcement is used when teaching new target responses; the reinforcement occurs following every correct response. Intermittent reinforcement is used to maintain behaviors previously learned, or “mastered”; the reinforcement occurs after every 2, 3, 4, 5, etc. correct responses or after an average number of responses.

Error correction is a procedure following an incorrect or non-response. These are two types of error correction:

- Informational “No,” which is telling the patient that they made an incorrect response and saying “No,” “Not quite,” “Almost,” “Try again,” etc. Because this is feedback, not punishment, a neutral tone should be used, not a negative or harsh one. The “No” response should not be aversive; it should simply be informative.
- Head-Down Procedure, in which the behavior technician responds to the patient’s error by briefly looking away in a clear and noticeable way. The behavior technician can look at their lap, turn their head to the side, or look down at a table.

2. Discrimination Training

Following is a list of key terms associated with discrimination training:

Key Term	Definition
Discrimination Training	The process of reinforcing a target response only when the target antecedent, or SD , is present. This is used to teach the patient the difference between two or more stimuli.

Acquisition Target	Description of the SD-response relationship that is currently being taught
Distracters	Additional items that are not targets but are used in discrimination training procedures to teach discrimination
Mass Trial	Repeating a specific SD/instruction so patient can practice giving a correct response
Random Rotation	The presentation of two or more SDs in random order
Mastery	Criteria that objectively determine when a patient has learned a target

Video Transcription

[INAUDIBLE] this. What color is this?

Red. Very good. You know your colors.

Once he has learned to label the red car by saying red, he now needs to learn to discriminate between a red car and other cars. Here, when shown a yellow car, he mistakenly identifies it first by saying red.

What color is this?

Red.

Again.

Elbow.

This shows that he does not yet fully discriminate between the items, and therefore, has not yet totally mastered the concept of red.

2a. Simultaneous Discrimination Training

In simultaneous discrimination training, a field of stimuli is presented with the instruction. You may recall that we use seven steps when there are “no known” targets and four steps when there are “known” targets.



Seven Steps for “No Known” Targets	Four Steps for “Known” Targets
<i>Step 1:</i> MT (mass trial) Target 1 Alone <i>Step 2:</i> MT Target 1 vs. Unknown Distracters <i>Step 3:</i> MT Target 2 Alone <i>Step 4:</i> MT Target 2 vs. Unknown Distracters <i>Step 5:</i> MT Target 1 with Target 2 as a distracter <i>Step 6:</i> MT Target 2 with Target 1 as a distracter <i>Step 7:</i> RR (random rotation) Target 1 vs. Target 2	<i>Step 1:</i> MT Target 3 Alone <i>Step 2:</i> MT Target 3 vs. Unknown Distracters <i>Step 3:</i> MT Target 3 vs. Known Distracters <i>Step 4:</i> RR Target 3 vs. Previously Mastered Targets

2b. Successive Discrimination Training

Successive discrimination training involves no field of stimuli. Rather, there is a question, statement or cue in the environment. There are three steps and two steps in this training.

STEP BY STEP

Three Steps for “No Known” Targets	Two Steps for “Known” Targets
<i>Step 1.</i> MT Target 1 Alone <i>Step 2.</i> MT Target 2 Alone <i>Step 3.</i> RR Target 1 vs. Target 2	<i>Step 1.</i> MT Target 3 Alone <i>Step 2.</i> RR Target 3 vs. Previously Mastered Targets

2c. Conditional Discrimination Training

In conditional discrimination training (also called match to sample), the reinforcement for a certain stimulus depends upon the presence of other stimuli or other S^D s.

Guidelines for conditional discrimination training include

- No mass trial to introduce new skills; targets are not introduced one at a time.
- Each trial presents a different targeted S^D and response.
- Multiple responses with the stimulus set are targeted simultaneously.
- Every trial should contain at least three different stimuli.
- Each targeted response should occur in random order.
- Equal number of S^D s are presented for each of the targeted responses in the set.
- Ensure random placement of the stimuli during every trial.
- Procedures will be individualized according to the needs of the patient.

3. Natural Environment Training (NET)

Natural environment training (NET) is a training procedure in which situations and items that the patient would already be interacting with are used to teach target skills. Behavior technicians capitalize on the patient’s motivation at that given moment.

Here are some key terms related to NET:

Key Term	Definition
Combining	Presenting two or more different S^D s/learning opportunities during an activity
Capturing	Using existing S^D s/learning opportunities that are already present in the natural environment
Contriving	The behavior technician modifies the environment or situation to create a learning opportunity when one is not present

Video Transcription

Hey, what color do you want? Look, I have green, yellow, and pink. What color?

Yellow.

So what do you say?

Can I have yellow?

Yes, you can. Close. There we go.

Oh!

Uh-oh! Should we make him stand?

[INAUDIBLE] little jumpy.

[GASPS] Should we make him jump? Here, let's make him jump. Ready? Boink. Uh-oh. Look. What is that? See, it's a footprint.

It's a footprint.

It's a footprint. Cool. You want to do it again?

[INAUDIBLE]

[LAUGHS]

Oh, ho, oh, coolness. Wow!

Happy birthday.

Happy birthday? Whose birthday is it? Say, it's my--

It's my--

B-- birth--

Day.

Say, birthday.

Birthday.

Say it's M--

It's my [INAUDIBLE]. It's my birthday.

Yeah. How old are you?

It's my--

I'm--

I'm three.

Yep, you're three. Do this. Say, three.

Three.

1, 2-- look, three fingers. Look. Right here. Look. 1, 2--

3.

--3, three fingers.

There are four main characteristics of NET:

1. Focus on the use of the patient's current motivation (MO)
2. Functional relationship between the task and the reinforcer
3. Taught in the patient's environment in a playful manner
4. Focus on reinforcing any appropriate attempt to respond

The general components of NET include naturalistic instruction delivery of SDs, experiential instruction, and following the motivation and interests of the patient.

NET prompting strategies consist of these:

- Rephrasing the question: rephrasing the SD using different language or terminology
- Leading questions: asking a question or series of questions, or giving a series of statements that guide the patient to the correct response
- Acting confused: pretending not to know information to get more information from the patient
- Choices: giving the patient answer choices
- Hypothetical scenarios: "putting the patient in another's shoes" and allowing the patient to experience what another person is experiencing
- Indirect visual or textual: drawing a social story, social comic strip, or illustration, or writing a list or description of a target concept.



SUMMARY

In this lesson, you reviewed the key terms and concepts related to **discrete trial training (DTT)**, a teaching method with a clear beginning, middle, and end used to promote learning new skills. You may recall it is made up of the three-term contingency: the antecedent, the response, and the consequence. You also reviewed the key terms associated with **discrimination training**, which is the process of reinforcing a target response only when the target antecedent, or SD, is present. You revisited the steps for "no known" and "known" targets for simultaneous discrimination training and

successive discrimination training, as well as the guidelines for conditional discrimination. Lastly, you reviewed the key terms, characteristics, components, and prompting strategies of **natural environment training (NET)**, a training procedure in which situations and items that the patient would already be interacting with are used to teach relevant target skills.