Self-Instruction Manual: Introduction to Teaching Discrimination Skills to Children Diagnosed with Autism Using Discrete Trial Teaching & Errorless Learning

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(Modified from Fazzio & Martin, 2006)

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OVERVIEW OF MANUAL

This manual contains descriptions and examples of some of the concepts and basic skills that you will need in order to successfully conduct teaching trials with individuals diagnosed with an autism spectrum disorder using Applied Behavior Analysis (ABA). The approach that you will be learning is referred to as **discrete-trials teaching (DTT) or discrete-trials training**. While DTT can be conducted in a variety of ways, you will be using an **errorless learning** (**EL**) technique to reduce the errors made by the students (actors) that you will be working with.

You will be learning how to teach children to discriminate among pictures. Discrimination skills are very important to teach because they are the foundation for many other skills. Once you master the ability to use discrete-trials training and errorless learning to teach discrimination of animal pictures, you will be well on your way to being able to teach a variety of other skills to children with autism; however, you will need additional training in order to become a seasoned instructor.

To help you to master the DTT skills, study questions have been provided the end of each sub-section.

When studying this manual, you should proceed as follows:

- Read a sub-section
- Complete examples as indicated
- Answer each study question at the end of the subsection
- Memorize the answers to the study questions

- Practice by yourself (pretend) as indicated
- Proceed to the next sub-section

In **two hours**, you will be given a closed-book test to assess your mastery of the study questions. Then, you will be asked to attempt to demonstrate what you have learned with actor. As you are reading, when you see a ? next to the text, this means that the answer to a study guide question is in that block of text. When you see reat to text, this means that you should practice your skills by pretending by yourself as indicated.

1.

GETTING STARTED

Before you start the session, *quickly* organize your materials. You should have three animal flashcards, a program sheet, and a datasheet in your folder. Begin by filling in the target blanks on the datasheet. Take out one of the practice datasheets, and follow along to practice.

Start with the blanks for the probes. **You will probe each item only one time**, so a different animal should be written into each blank, like this:

Target:	cow	🗆 Ind	□ GP	D PP	□ FP
Target:	bird	🗆 Ind	□ GP	D PP	□ FP
Target:	dog	□ Ind	□ GP	D PP	□ FP

Now fill in the blanks for the teaching targets. You will **run three**

teaching trials of each item. When filling out the datasheet, follow these rules:

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- Do not write the same item in more than two consecutive blanks (e.g., cow, cow, cow).
- Avoid writing the targets in the same order (e.g., cow, bird, dog, cow, bird, dog).

Follow the example below, and complete the rest of the datasheet. Make your datasheet look like this one:

v.2.0 Discrete Trial Training Datasheet					
Participant #	Session #	Phase: Date:			
-	Gestural Prompt PP Independent Response	= Partial Physical Prompt FP = Full Physical Prompt (no prompt required)			
Probes: C	heck the prompt level red	quired to bring about the correct response			
Target:	COW	□ Ind □ GP □ PP □ FP			
Target:	bird	□ Ind □ GP □ PP □ FP			
Target:	dog	□ Ind □ GP □ PP □ FP			
Trials: Indicate whether the student made a correct or error response and check the highest prompt level used					
Target:		Correct Error			
1	dog	GP PP FP Ind			
Target:		Correct Error			
2	bird	GP PP FP Ind			
Target:		Correct Error			
3.	COW	GP PP FP Ind			
Target:		Correct Error			
4.	COW	□ GP □ PP □ FP □ Ind			
Target:		□ Correct □ Error			
5	d og	GP PP FP Ind			
Target:		□ Correct □ Error			
6	bird	GP PP FP Ind			
Target:		□ Correct □ Error			
7	d og	GP PP FP Ind			
Target:		Correct Crror			
8	COW	GP PP FP Ind			
Target:		Correct Crror			
9.	bird	🗆 GP 🗆 PP 🗆 FP 🗆 Ind			

Study Questions

- 1. How many times should you probe each target item?
- 2. How many teaching trials should you conduct of each target?
- 3. Is it ok to list the same target three times in a row?

2.

PRESENTING FLASHCARDS & SECURING ATTENTION

Whether you are conducting probe or teaching trials, you must

begin by securing the child's attention and presenting the flashcards

approximately 1-2 seconds before you provide the instruction.

- **?** Follow these guidelines when presenting the flashcards for a probe or a teaching trial:
 - Always present all three flashcards for each trial
 - Be sure that the flashcards are evenly spaced and in line with one another

Good example:





Bird

Bad example:



Dog

Dog



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- Arrange the stimuli IN A DIFFERENT ORDER for each trial
- Be sure that the target of this probe is in **DIFFERENT**
- **POSITION** than the target in the previous probe.
 - For example, in this trial, cow is the target, and it is presented in the left position.



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These following arrays would be INCORRECT presentations for this trial:



Follow these guidelines when securing the child's attention:

- Saying the child's name (e.g., "Sally)
- Saying "look" or "look at all the pictures"

Laying out the flashcards near you and then sliding them in all at once towards the child such that it grabs his/her attention



Presenting the cards in front of the child and moving your finger along the front of the cards in one fluid motion back and forth, drawing attention to the cards without pausing at any one card. DO NOT DRAW ATTETENTION TO ANY ONE CARD as this might accidently prompt the child to select that card. You might also say, "look" while doing this.



Presenting the cards in front of the child and using a full physical prompt, move the child's finger along the front of the cards in one fluid motion back and forth, drawing attention to the cards without pausing at any one card. DO NOT DRAW ATTETENTION TO ANY ONE CARD as this might accidently prompt the child to select that card. You might also say, "look" while you do this. **NOTE:** You should only use ONE of these techniques per trial, and you should mix and vary the methods you use to secure the child's attention.

DO NOT DO THE FOLLOWING TO SECURE ATTENTION

- Touch each individual card
- Name each individual card
- Snap your fingers at the child
 - Say his/her name repeatedly
 - Repeatedly say any of the appropriate statements (e.g., "Sally. Sally."

Study Questions

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- 4. Be able to identify "good" and "bad" examples of presenting the flashcards.
- 5. Be able to provide and identify "good" and "bad" examples of securing the child's attention.

3. PRESENTING THE INSTRUCTION (DISCRIMINATIVE STIMULUS - SD)

The things (sights, sounds, smells, etc.) in our environment capable of affecting our behavior are called **stimuli** (plural of **stimulus**). When a <u>specific set of stimuli are associated with a specific response, the stimuli</u> <u>are called **Discriminative Stimuli** (plural of stimulus) (**SD**). When implementing discrete-trials teaching, you should ONLY USE the SD listed on the program sheet. For example, when you are teaching children to discriminate pictures of animals, the **SD** is a combination of the pictures that you present as well as the instruction, "Give me</u> <u>(animal)</u>." Other similar instructions are acceptable as well, just follow these guidelines.

- Be sure to keep the instruction brief
- Do not use additional descriptors (e.g., "Give me dog. He has a blue collar.")
- Do not use instructions like, "Touch the ___" or "Point to ___" because those instructions indicate that the child should do something other than place the card in the hand of the instructor.

The top of your program sheet might look like this:

Discrimination Training Protocol: Animals

Objective: Student will select the correct animal picture from an array of three animal pictures and place it in the hand of the instructor following an instruction like, "Give me ____," "Hand me the ____," or "Where's the ____".

SD: Say, "Give me _____" (or a similar statement)

Response: Student selects a picture and extends hand (holding the picture) towards the instructor

Target List:CowDogBird

DO SAY	DON'T SAY
"Give me cow"	"Touch the cow"
"Hand me dog"	"Point to the dog"
"Where's the bird"	"Tell me where the bird is"
"Find the dog"	"Show me the little doggie. It's brown
	and has a tail and a blue collar."

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Do not forget, this program requires that an array of *three* pictures always be presented. The instruction + the specific card that you are asking for = the SD for the response that you want to see.

EXAMPLE

Look at the examples below. Check the boxes of the trial in which the instructor presented the correct SD.





Answers

In the above example, you should have selected boxes A and D.



Box A is CORRECT because all 3 flashcards were presented and the instruction was correct.

In Box A the SD was:

"Give me dog," + the dog flashcard



Box C is INCORRECT because the instruction included an adjective (yellow) and the target word was incorrect (birdie). A correct instruction would have been "Hand me the bird"

Study Questions

- 6. Define Discriminative Stimulus (SD).
- 7. Be able to provide and identify "good" and "bad" examples of instructions.
- 8. Be able to explain why the SD provided correct or incorrect.



Box B is INCORRECT because only 2 flashcards were presented



Box D is CORRECT because all 3 flashcards were presented and the instruction was correct.

In Box A the SD was:

"Hand me the cow," + the bird flashcard

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CORRECT RESPONSES AND ERRORS

In general terms, **behavior** is anything that a person says or does. Another word for behavior is **response**. When you are teaching individuals with autism, the behavior that you are teaching is called the **correct response** because it is the only response that you want to see after you give an instruction. Any other type of response, or in some cases a non-response, is called an **error**.

When teaching animal discrimination, the correct response is counted when the learner (actor) selects the card that corresponds with the instruction provided by the instructor and then extends his/her arm towards the instructor while holding the card. The correct response MUST occur within 3 seconds of the instruction.

The correct response to "Give me cow" looks like this:



Errors

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As stated above, an error response is anything that the learner (actor) does that is NOT the correct response. Later you will learn the error correction procedure to use when learner (actor) errors occur. Many different errors can occur. Here are some examples of common errors:

- Scrolling: The child touches the wrong picture, but then quickly selects the correct picture and extends it towards the instructor. This is an error because the goal is for the child to IMMEDIATELY select the correct item.
- **No Response:** The child fails to respond within 3 seconds of the instruction.
- Select the wrong item: The child selects a picture other than the one indicated in the instruction provided.
 - Select Correct and Hold: This child selects the correct picture, but fails to extend it towards the instructor. The child might hold the card, play with the card, or sets the card back down.
 - Select Correct and Throw: The child selects the correct picture, but then tosses it towards the instructor or across the table rather than handing it to the instructor.

Practice Examples:

Read the following scenarios and answer the questions.

- 1. The instructor places three animal cards evenly spaced in front of Sally (the learner), and says, "Give me cow." Sally selects the cow and holds it in her hands.
 - a. Did Sally make a correct response or an error? If she made an error, what kind?
 - b. Did the instructor make any errors? If so, what were they?
- 2. The instructor places two animal cards evenly spaced in front of Sally, and say, "We're going to work on animals. First, give me the dog." Sally selects the dog and hands it to the instructor.
 - a. Did Sally make a correct response or an error? If she made an error, what kind?
 - b. Did the instructor make any errors? If sow what were they?

? Answers:

- 1. The instructor places three animal cards evenly spaced in front of Sally (the learner), and says, "Sally, give me cow." Sally selects the cow and holds it in her hands.
 - a. Did Sally make a correct response or an error? If she made an error, what kind?

Sally did make an error. She did not extend the correct card towards the instructor. This error is "Select Correct and Hold."

b. Did the instructor make any errors? If so, what were they?

The instructor did not make any errors. ⁽ⁱ⁾ The instructor correctly displayed the flashcards, secured Sally's attention (e.g., "Sally"), and then presented the instruction ("give me cow)."

- 2. The instructor places two animal cards evenly spaced in front of Sally, and say, "We're going to work on animals. First, give me the dog." Sally selects the dog and hands it to the instructor.
 - a. Did Sally make a correct response or an error? If she made an error, what kind?

Sally engaged in the correct response! ©

b. Did the instructor make any errors? If sow what were they?

The instructor made three errors. First, he/she did not present all three flashcards. Second, he/she did not secure Sally's attention, and finally, his/her instruction was too lengthy. The only instruction that should have been provided was, "Give me dog," or something similar.

Study Questions

- 9. Define and identify the correct response of the learner when teaching animal discrimination.
- 10. Name and identify learner errors.
- 11. Be able to explain what was correct/errorful about a given learner response.

5.

PROVIDING REINFORCERS FOR CORRECT RESPONSES

Our behaviors are affected by their immediate consequences. In everyday language, we say that rewards strengthen the behaviors that they follow. <u>A **positive reinforcer** is a stimulus that, when presented</u> *immediately* following a behavior, causes the behavior to be

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strengthened (more likely to re-occur). In other words, when a positive reinforcer immediately follows a behavior, that behavior is more likely to happen again and again. In general terms, positive reinforcers are things that individuals like or prefer. Candy, for example, is a reinforcer for many children. Affectionate pats and hugs, praise, nods and smiles (referred to as social reinforcers) are reinforcers for many individuals. However, just because an item or activity is preferred does not necessarily mean that it is a reinforcer. *In order for something to be considered a reinforcer it must be presented following a behavior and that behavior must be strengthened or increase*.

In future trainings, you may learn about other types of reinforcers (e.g., negative reinforcers) and how to identify reinforcers with children that you are working with; however, this is beyond the scope of this

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manual. Now, you are going to learn about proper reinforcement delivery. At some point, you may be asked to practice your skills with a trainer, and "mock reinforcers" will be provided for you to use.

Delivering Reinforcement

Sometimes and individual (actor) that you are teaching will engage in a correct response without any help (independently). Sometimes you might have to provide assistance (prompts) to help them make the correct response. When using an errorless learning approach, prompts are provided BEFORE a child has a chance to make an error. <u>When a</u> child engages in the correct response (i.e., no error has been made), the instructor should IMMEDIATELY provide the child with a tangible reinforcer (e.g., toy, snack) + enthusiastic praise (e.g., "Way to go!" "You did it! That is awesome!"). This is the case even when the child's correct response has been prompted. (Note: You will learn about prompts later in this manual.)

It is important to deliver the reinforcers IMMEDIATELY after the correct response and BEFORE YOU mark anything on the data sheet. If you wait to deliver the reinforcer, you might actually reinforce some other behavior that is happening (e.g., nose picking) that you do not want to see increase or strengthen. Also, remember to REMOVE ? reinforcers (e.g., toys) before you begin the next trial. If the child does not hand it to you when you ask or reach for it, just gently remove it.

Withholding Reinforcement

There are two circumstances under which you do not provide reinforcers.

- If a child makes an error (e.g., scrolling response), then you DO
 NOT PROVIDE REINFORCERS! No praise, no tangibles. Instead you will engage in the error correction procedure which you will learn about later.
 - When you are conducting probe trial, you should NOT PROVIDE REINFORCERS. This means no praise and no tangibles.

Examples:

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Read the examples of teaching trials below. THESE ARE NOT PROBE TRIALS. (Note: you will learn more about probe trials later) For each example, answer the following questions:

- What did the instructor do right? If the instructor did something wrong, what should the instructor have done instead?
- Did the student make engage in a correct response or an error response?
 - The instructor places three animal cards evenly spaced in front of Sally (the learner), and says, "Sally, give me cow." Sally selects the cow and holds it in her hands. The instructor says, "Woohoo! Super!!!" and hands Sally her favorite stuffed bear.

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2. The instructor places three animal cards evenly spaced in front of Sally, and says, "Hand me the dog." Sally touches the cow, then selects the dog, and hands the dog picture to the instructor. The instructor gives Sally a piece of candy and says, "Wow, you're really starting to get this! Give me a high five."

3. The instructor places three animal cards evenly spaced in front of Sally, and says, "Find the bird." Sally selects the bird and hands the bird picture to the instructor. The instructor indicates on the datasheet that Sally engaged in a correct and independent response, and then tells Sally, "Super job! Fantastic" and gives her one of her favorite musical toys to play with.

4. The instructor places three animal cards evenly spaced in front of Sally, and says, "Give me cow." Sally selects the cow and hands the cow picture to the instructor. The instructor says, "Way to go, superstar!" 5. The instructor places three animal cards evenly spaced in front of Sally, and says, "Where's the bird." Sally selects the bird and hands the bird picture to the instructor. The instructor says, "TERRIFIC!" and hands Sally her favorite toy bear.

9 Answers:

- 1. The instructor places three animal cards evenly spaced in front of Sally (the learner), and says, "Sally, give me cow." Sally selects the cow and holds it in her hands. The instructor say, "Woohoo! Super!!!" and hands Sally her favorite stuffed bear.
- The instructor should not have provided praise or the bear. He/she should have begun the error correction procedure.
- The student engaged in an error Select Correct and Hold.
- 2. The instructor places three animal cards evenly spaced in front of Sally, and says, "Look. Hand me the dog." Sally touches the cow, then selects the dog, and hands the dog picture to the instructor. The instructor gives Sally a piece of candy and says, "Wow, you're really starting to get this! Give me a high five."
- The instructor should not have provided praise or the bear. He/she should have begun the error correction procedure.
- The student engaged in an error Scrolling.

- 3. The instructor places three animal cards evenly spaced in front of Sally, and says, "Find the bird." Sally selects the bird and hands the bird picture to the instructor. The instructor indicates on the datasheet that Sally engaged in a correct and independent response, and then tells Sally, "Super job! Fantastic" and gives her one of her favorite musical toys to play with.
- The instructor forgot to secure Sally's attention, and the instructor should have IMMEDIATELY provided praise and the musical toy BEFORE collecting data.
- The student engaged in the correct response! ③
- 4. The instructor places three animal cards evenly spaced in front of Sally, and says, "Give me cow." Sally selects the cow and hands the cow picture to the instructor. The instructor says, "Way to go, superstar!"
- The instructor provided praise but no tangible. The instructor should have provided both.
- The student engaged in the correct response.
- 5. The instructor places three animal cards evenly spaced in front of Sally, and says, "Where's the bird." Sally selects the bird and hands the bird picture to the instructor. The instructor says, "TERRIFIC!" and hands Sally her favorite toy bear.
- The instructor did everything right.
- The student engaged in the correct response.
- Take a moment to practice what you have learned so far with the materials that you have. Just pretend.

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Study Questions

- 12. Define a positive reinforcer.
- 13. Identify and explain situations in which you would and would not provide praise + a tangible reinforcer.
- 14. How soon after a correct response should you deliver the reinforcer
- 15. Should you remove the reinforcer (e.g., toy) before the next trial?

6.

PROMPTS AND PROMPT FADING

If a child is unable to respond correctly to an SD, the teacher might provide some assistance to help the child do so. <u>The assistance provided</u> to increase the likelihood that a correct response will occur is referred to as a **prompt**. <u>When teaching using an Errorless Learning (EL)</u>

technique during teaching trials (not probe trials), prompts occur just

after or at the same time as the SD and before the child has a chance to respond incorrectly. Assistance that comes *after* a response has already occurred, **is not a prompt**, but rather a consequence. Prompts ensure that the correct behavior occurs following the SD and is reinforced appropriately, which will result in strengthening the correct response.

Types of Prompts

Full Physical Guidance or Full Physical Prompt (FP)

Full Physical Guidance (also called a full physical prompt) consists of the instructor touching the child to guide him through the entire response. The entire response is prompted. The child does not independently engage in any part of the correct response. This type of prompt can be fairly intrusive and often involves the teacher using one or both hands to guide the child to make the correct response.

Sometimes, this is called "hand over hand" when the prompt involves the teacher using his or her hand(s) to carefully guide the child's hand to complete a correct response.

This is what a Full Physical Prompt looks like following the instruction, "Give me dog."



The instructor picks up the child's hand.



Then, moves her hand towards the correct picture and helps her pick it up.

She continues to assist the child all the way until the card reaches the instructors other hand, completing the correct response.

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Partial Physical Guidance or Partial Physical Prompt (PP)

Partial Physical Guidance (also called a partial physical prompt) is less intrusive than the full physical prompt, and consists of the instructor starting out lightly touching the child to guide him or her appropriately through the first part of the response, but stops prompting at some point, such that the child completes the last part of the correct response independently.

This is what a partial physical prompt looks like following the instruction, "Hand me the cow."



The instructor nudges the child's arm towards the correct picture.



Then, the instructor stops prompting, and the child completes the correct response on her own.

Here's another example. This is a different style of a partial physical prompt looks like following the instruction, "Where's the dog."



The instructor picks up the child's hand and moves it towards the correct picture. Then, the instructor lets go of her arm (stops prompting), and the child completes the correct response on her own.

BOTH TYPES OF PARTIAL PHSYICAL PROMPTS ARE CORRECT! Gestural Prompts (GP)

Gestural prompts are even less intrusive than the partial physical prompt as they *do not require physical guidance*. Gestural prompts are certain motions that the instructor makes, such as pointing to the correct stimulus or making a motion directed toward the child without touching him or her.

This is what a gestural prompt looks like following the instruction, "Find cow."



The instructor points to the correct card without touching it.

Then, the child selects the correct card and completes the correct response on her own.

Here is another example of a different gestural prompt following the instruction, "Show me the dog."





The instructor touches the correct card and the child moves to select it.

Then, the child selects the correct card and completes the correct response on her own.

BOTH TYPES OF GESTURAL PROMPTS ARE CORRECT!

Study Questions

- 16. Define a prompt.
- 17. When does a prompt occur when you are using errorless learning?
- 18. Define full physical prompt, partial physical prompt, and gestural prompt.
- 19. Be able to identify all three types of prompts listed above and explain why the prompts are correct or incorrectly implemented.

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Take a moment to practice what you have learned so far with the materials that you have. Just pretend.

7.

PRE-SESSION PROBES

In a discrete-trials / errorless learning procedure, the teacher must first conduct one probe trial of each of the teaching targets to determine which prompt level to start with when he or she begins teaching trials.

- 1. *Prepare the teaching materials and the datasheet* as you learned how to do earlier in this manual.
- 2. Present the flashcards and secure the individual's attention.
- 3. *Present the instruction*, "Give me ____" then allow the child **3**
- seconds to respond. Do not wait more or less time UNLESS THE CHILD BEGINS TO MAKE AN ERROR.
 - 4. If the child...
 - Responds correctly after before 3 seconds expires
 - Pick up all of the flashcards
 - Record the response on the datasheet (Step 6)
 - Begin the next trial
 - Begins to make an error or completes an error OR
 - Does not respond within 3 seconds
 - Pick up all of the flashcards
 - o Begin Step 5

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- 5. Begin presenting prompts from least-to-most intrusiveness.
 - a. Re-present the flashcards in the exact same order and secure the child's attention. Present the exact instruction again + an IMMEDIATE gestural prompt. If the child does not respond correctly to a gestural prompt or resists a gestural prompt, then move to next step (increasing the prompt level).
 - b. Re-present the flashcards in the exact same order and secure the child's attention. Present the exact instruction again + a partial physical prompt. If the child does not respond correctly to the partial physical prompt or is resists the partial physical prompt, then move to next step (increasing the prompt level).
 - c. Re-present the flashcards in the exact same order and secure the child's attention. Present the exact instruction again + a full physical prompt to bring about the correct response. Do not continue until you get the child to make a correct response.
 - d. Once the child engages in the correct response, move on to Step 6.

DO NOT PROVIDE PRAISE OR TANGIBLE REINFORCERS DURING THE PROBE TRIALS!

6. *On the data sheet, record* the prompt level that was required to bring about the correct response. If no prompt was required (i.e.,

the child responded correctly within 3 seconds of the original instruction), then mark \boxtimes Ind. Indicating an independent, correct response occurred. Your datasheet might look like this after you complete the probe trials.

Target:	COW	🗵 Ind	□ GP	D PP	🗆 FP
Target:	bird	🗆 Ind	🗆 GP	D PP	🗵 FP
Target:	dog	🗆 Ind	🗵 GP	D PP	□ FP

7. Return to Step 1 to probe the other target items. After you finish probing the targets, you will begin conducting teaching trials.

NOTE: You should try to complete all of the probe trials as quickly as possible, aiming for no longer than 1 minute per probe.

Pre-Session Probes Example

Take out a new blank datasheet and practice as you read. Just pretend.

You are teaching Sally to discriminate animal pictures from an array of three animal pictures when she hears an instruction like "Give me ____." You are given this description of the program.

• Fill out the probe portion of the datasheet so that it looks like the one below.

Target:	bird	🗆 Ind	□ GP	🗆 PP	🗆 FP
Target:	dog	🗆 Ind	🗆 GP	D PP	🗆 FP
Target:	COW	🗆 Ind	🗆 GP		🗆 FP

Probe Trial 1: bird

• You arrange the stimuli and secure the child's attention.

Cow

"Sally"



- Present the instruction for the first probe. "Give me bird."
 - Wait 3 seconds for the child to respond.
 - The child did not respond, so you...
 - Pick up all of the flashcards
 - Present the flashcards in the same order and secure the child's attention

"Look"

Bird



• Then, present same instruction, "Give me bird," and IMMEDIATELY provide a gestural prompt.

Dog

 The child responds correctly to your gestural prompt so you...

- ?
- SAY NOTHING and pick up all of the flashcards.
- \circ Record \boxtimes GP on the datasheet.
- You have completed the first probe.

Probe Trial 2: Dog

• Arrange the flashcards and secure the child's

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- Present the instruction for the second probe. "Find the dog."
 - Wait 3 seconds for the child to respond.
 - The child engaged in the correct response immediately following the instructions, so you...
 - SAY NOTHING and pick up all of the flashcards.
 - \circ Record \boxtimes Ind. on the datasheet.
 - You have completed the second probe.

Probe Trial 3: Cow

• Arrange the flashcards and secure the child's

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"Look at the pictures"



- Present the instruction for the third probe. "Where is the cow?"
 - Wait 3 seconds for the child to respond.
 - The touched the dog picture (error), so you...
 - SAY NOTHING and pick up all of the flashcards.
 - Re-present the flashcards in the exact same order and secure attention

Bird

"Sally"

Dog



- Re-present the same instruction, "Where is the cow?" and IMMEDIATELY provide a gestural prompt
 - The child does not respond to the gestural prompt within 3 seconds so you...

- Re-present the same instruction, "Where is the cow?" and IMMEDIATELY provide a partial physical prompt
 - The child resists the partial physical prompt by pulling her arm away, so you...
- Re-present the same instruction, "Where is the cow?" and IMMEDIATELY provide a full physical prompt
 - The child completes the correct response with your assistance, so you.
- SAY NOTHING and pick up all of the flashcards.
- Record \boxtimes FP on the datasheet.
 - You have completed the last probe.
 - Your datasheet should look like this:

Target:	bird	🗆 Ind	🗵 GP		🗆 FP
Target:	dog	⊠ Ind	□ GP	D PP	□ FP
Target:	COW	🗆 Ind	🗆 GP	D PP	🖾 FP

If your datasheet looks different, then practice the example again on a new datasheet and try to figure out how to correct your mistake.

Study Questions

- 1. Why is it necessary to conduct pre-session probes?
- 2. Be able to list the steps of conducting pre-session probes.
- 3. Be able to complete the probe section of a datasheet.
- 4. Describe what to do when a child makes an error during a probe trial.
- 5. What is the order in which prompts are presented during probe trials (hint: least to most)
- 6. Should you provide praise during probe trials? What about tangible reinforcers?
- 7. Be able to demonstrate how you would present the flashcards in a different order with the target card being in a different location for each probe trial.
- 8. About how long should it take you to conduct the three probe trials?

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CONDUCTING TEACHING TRIALS

Once probes have been conducted, you are ready to begin conducting teaching trials. Conducting teaching trials is very much like conducting probe trials, **except** that you will begin by providing the prompt level that was determined during the probe and then gradually decrease prompts over subsequent trials.

- 1. Prepare the teaching materials.
- 2. Place reinforcers out of reach, but within view of the child.
- 3. Present the stimuli & secure the child's attention.
- 4. Present the instruction & immediately provide the appropriate
 - prompt. If this is the...
 - First teaching trial for this particular target, then...
 - IMMEDIATELY provide the prompt that was required in the probe trial for that particular target UNLESS no prompt was required.
 - If no prompt was required for this target in the probe trial, then allow the child up 1-2 seconds to respond to the instruction.
 - Second or third teaching trial for this particular target, then...
 IMMEDIATELY provide the prompt that is ONE
 LEVEL LESS INTRUSIVE than the prompt that was

provided in the previous teaching trial. This is called PROMPT FADING.

- For example, if a full physical prompt (X FP) was required in the first TEACHING TRIAL for cow, then the next trial that cow is presented, you should immediately use a Partial Physical Prompt following the instruction because it is one level less intrusive than the full physical prompt.
- If no prompt was required for this target in the previous teaching trial, then allow the child up 1-2 seconds to respond to the instruction.

If the learner engages in ...

- An ERROR response, move to Step 5
- A CORRECT response, skip Step 5 and move right to Step 6
- 5. Complete the Error Correction procedure if the child engaged in an error response (if not, move to Step 6).
 - Remove the flashcards for 1 second
 - Represent the stimuli in the same order and secure the child's attention
9

9

- IMMEDIATELY provide a prompt, increasing the intrusiveness by one level
 - $\circ \qquad \text{No prompt} \rightarrow \text{Increase to} \rightarrow \text{GP}$
 - $\circ \qquad \text{GP} \rightarrow \text{Increase to} \rightarrow \text{PP}$
 - $\circ \qquad \mathsf{PP} \rightarrow \mathsf{Increase to} \rightarrow \mathsf{FP}$
 - $\circ \qquad FP \rightarrow \text{provide a more secure FP}$
- If the child resists your prompt or makes ANOTHER error, complete the error correction procedure, increasing the prompt level each time, until the child engages in the correct response.

Once the child engages in a correct response, move to Step 6.

6. Provide PRAISE + A TANGIBLE REINFORCERS immediately (within 1 second) following the correct response, even if that response was prompted. Even if that prompted response was part of the error correction procedure.

BE SURE TO PROVIDE REINFORCEMENT FOR CORRECT RESPONSES <u>BEFORE</u> YOU RECORD DATA

- 7. On the data sheet, record
 - Whether the child's first response was correct or whether an error was made (e.g., ⊠ correct □ error).
 - Also, record the prompt level that was required to bring about the correct response (□ GP ⊠ PP □ FP □ Ind). If an error

9

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occurred, you will be recording the prompt level required during the error correction procedure.

- If no prompt was required (i.e., the child responded correctly within 3 seconds of the original instruction), the mark ⊠ Ind. Indicating an independent, correct response occurred.
- Your datasheet might look like this after you complete the probe trials and the first three teaching trials.

Notes about the Error Correction Procedure

Despite the name "Errorless Learning," student will still engage in error responses from time to time. For example, some students are resistant to physical prompts initially. When an error occurs, it is important NOT to provide the child with a great deal of attention. DO NOT provide praise tangible reinforcers immediately following an error. In fact, do not say anything at all. Instead you should simply follow the instructions above to bring about the correct response following an error response.

Notes about Prompt Fading:

The goal of teaching is to teach a child to respond appropriately to a variety of instructions *without* accompanying prompts. However, abruptly removing prompts often results in student errors. Student errors during training may result in the student errors later on, even after the skill has been technically "mastered" by the student. On the other hand, if prompts are not faded (removed) quickly enough, students may become dependent on the prompts to engage in a correct response. Therefore it is important that the prompts be faded gradually, yet quickly as described in the procedures above.

Accidental Prompts

Sometimes during teaching sessions, an instructor might unknowingly provide an accidental prompt to a child. To avoid accidentally prompting a child you should follow these guidelines.

- Always look at the child when you deliver instructions, never look at the flashcards. You might accidently look directly at the target that you plan on asking for.
- Maintain a neutral facial expression while delivering instructions.
 Only change your expression when you are providing praise. You can be very animated when providing praise.
- Keep the top of the table organized and display items so that they are arranged at equal distances from each other and from the child.
- Do not hold your hand out when you give the instruction.
- Do not use any of the unapproved methods of securing attention.
- Do not place one card out in front of the others when presenting the flashcards.
- ALWAYS pick up ALL of the flashcards between trials. Do not just leave them sitting out in between trials.

• ALWAYS remove the reinforcer from the child between trials to ensure that the child is paying attention when you give the instruction.

<u>Review</u>

- First, pre-session probes are conducted to determine the *initial* prompt level to be used during the *first teaching* trial.
- For the first teaching trial of a given target, use the *same prompt* level indicated *in the probe trial* of that target.
- In subsequent teaching trials, you will try to fade the prompt by trying to use a less intrusive prompt than the previous teaching trial.
- Avoid the accidental prompts.

NOTE: You should try to complete all of the teaching trials as quickly

as possible, aiming for no longer than a total of 5 minutes to complete 9

tri	al	s.
		~ •

1818.
Study Questions
9. True or False: Errorless Learning means that children will not make an error during instruction.
10. When you present the first teaching trial of each target, how do you decide which prompt to use? Do you provide that prompt immediately or wait 3 seconds?
11.Be able to list the steps of conducting teaching trials.
12. During a teaching trial, if you provide the instruction "Give me dog," and you immediately use a Gestural prompt which results in the child making a correct response, do you provide praise only or praise + a tangible reinforcer?
13. What should you do if a child engages in an error during a teaching trial?
14.Be able to describe the error correction procedure and recognize when it should be used.
15. During the error correction procedure, can you use praise? What about tangible reinforcers?
16.Be able to identify situations in which no reinforcement is provided, and situations when praise + a tangible reinforcer should be provided.
17.Be able to complete a datasheet. Page 40 of 54

Study Questions

- 18.Be able to identify which level of prompt should be provided in various examples.
- 19.Be able to identify accidental prompts.
- 20. About how long should it take you to conduct 9 teaching trials (3 trials of each target)?

Let's look at an example of some teaching trials:

Take out the datasheet on which you practiced taking data on probe trials.

• On this datasheet, a full physical prompt was required for the correct response on the probe trial, so the datasheet looks like this

Target: **COW** □ Ind □ GP □ PP ⊠ FP

• For the *first* teaching trial for cow, a Full Physical prompt should be provided immediately following the instruction. If the prompt is effective, and the child makes a correct response, then the datasheet will look like this for that trial:



• For the *next* teaching trial for cow, a Partial Physical prompt should be provided immediately following the instruction. If the prompt is effective, and the child makes a correct response, then the datasheet will look like this for that trial:



For the *third* and final teaching trial for cow, a Gestural prompt should be provided immediately following the instruction.
However, if the prompt is not effective, and the child makes an error, then the error correction procedure must be used. If a Partial Physical prompt is effective during the error correction procedure, then, the datasheet will look like this for that trial:



9.

MORE PRACTICE

Take out the first practice datasheet that you used to practice simply writing in targets. Practice all of the steps as they are written.

Probe Trial 1: Cow

• Arrange the flashcards and secure the child's attention.



- Present the instruction for the first probe. "Give me cow."
 Wait 3 seconds for the child to respond.
 - The shild did not respond.
 - The child did not respond, so you...
 - Say nothing and pick up all of the flashcards
- Present the flashcards in the same order and secure the child's attention

"Look"



- Then, present the same instruction, "Give me cow," and IMMEDIATELY provide a gestural prompt.
 - The child touches dog, but then gives you the cow pictures. This is an error, so you...
 - Say nothing and pick up all of the flashcards
- Present the flashcards in the same order and secure the child's attention

"Look at the pictures"



- Then, present same instruction, "Give me cow," and IMMEDIATELY provide a partial physical prompt.
 - The child gives you the cow, so you....
 - Say nothing
 - Pick up the flashcards
 - Record the data. Your datasheet should like this:

Target:	COW	🗆 Ind	🗆 GP	🗵 PP	🗆 FP
-					

Probe Trial 2: Bird

• Arrange the flashcards and secure the child's attention.



- Present the instruction for the first probe. "Where is the bird?"
 - You begin waiting, and the child responds correctly by handing you the bird
 - Say nothing
 - Pick up the flashcards
 - Record the data. Your datasheet should look like this.

```
Target: bird 🗵 Ind 🗆 GP 🗆 PP 🗆 FP
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Probe Trial 3: Dog

• Arrange the flashcards and secure the child's attention.

"Look here"



- Present the instruction for the first probe. "Hand me the dog."
 - You wait 3 seconds, the child does not respond, so you...
 - o Say nothing
 - Pick up the flashcards
- Re-present the flashcards, secure the child's attention by moving your finger back and forth along the pictures, and say, "Hand me the dog" while providing a gestural prompt.



- The child hands you the flash card.
- You say nothing and pick up all of the flashards
- Then, record the data. Your datasheet should look like this



Teaching Trial 1: Dog (continue practicing (©))

• Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this the first teaching trial of "dog," you should begin with the same prompt level that you ended with on the probe trial for this target.

- Arrange your materials
- Secure the child's attention
- Present a correct instruction for the target: dog ALONG WITH a Gestural Prompt (because this was the prompt recorded for the probe trial)
- The child responds correctly so you, provide praise + a favorite toy
- Record the data. The datasheet should look like this:

Target	-	🖾 Correct 🛛 Error	
1.	dog	🖾 GP 🗆 PP 🗆 FP 🗆 Ind	

Teaching Trial 2: Bird

- Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this is the first teaching trial of "bird," you should begin with the same prompt level that you ended with on the probe trial for this target. In this case, no prompt was required for the probe trial, so you should not begin with a prompt.
- Arrange your materials
- Secure the child's attention
- Present a correct instruction for the target: dog, and then wait up to 3 seconds

- The child responds correctly after only 1 second so you, provide praise + a favorite toy
- Record the data. The datasheet should look like this:

Targe	t:	⊠ Corr	ect 🗆 I	Error	
2.	bird	🗆 GP		🗆 FP	🗵 Ind

Teaching Trial 3: Cow

- Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this is the first teaching trial of "cow," you should begin with the same prompt level that you ended with on the probe trial for this target.
- Arrange your materials
- Secure the child's attention
- Present a correct instruction for the target: cow ALONG WITH a Partial Physical Prompt (because this was the prompt recorded for the probe trial)
- The child pulls his hand away and grabs the wrong picture. This is an error response, so you
 - Say nothing
 - Pick up the flashcards
 - Represent the flashcards IN THE SAME ORDER
 - Secure the child's attention

- Represent the SAME INSTRUCTION that you used previously AND immediately provide FULL PHYSICAL
 PROMPT because this is the next higher level of prompt than you used previously.
- The child selects the cow picture and hands it to you as you are prompting him, so you
 - Provide praise + a favorite toy
 - Record the data. The datasheet should look like this:

Targe	et:	□ Correct ⊠ Error	
3	COW	_ GP 🗆 PP 🖾 FP 🗆 Ind	d

Teaching Trial 4: Cow

- Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this is the second teaching trial of "cow," you should begin with one prompt level lower than the one you ended with on the first teaching trial for this target.
- Arrange your materials
- Secure the child's attention
- Present an appropriate instruction for the target: cow ALONG WITH a Partial Physical Prompt (because this is one level lower than the prompt recorded for the first teaching trial)
- The child responds correctly, so you

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Ind

#### **Teaching Trial 5: Dog**

- Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this is the second teaching trial of "dog," you should begin with one prompt level lower than the one you ended with on the first teaching trial for this target. A gestural prompt was recorded for the previous teaching trial for dog, so in this case, you will not provide a prompt immediately.
- Arrange your materials
- Secure the child's attention
- Present an appropriate instruction for the target: dog and begin waiting (up to 3 seconds)
- The child select the dog and the cow pictures. This is an error response, so you
  - Say nothing
  - Pick up the flashcards
  - Represent the flashcards in the same order

- Secure the child's attention
- Present the SAME instruction as you just used previously ALONG WITH a Gestural Prompt (because this is one prompt level higher than you first attempted).
- The child selects the dog picture, but then begins to play with it. This is an error, so you
  - Say nothing
  - Remove the flashcards
  - o Represent the flashcards in the same order
  - Secure the child's attention
  - Represent the same instruction ALONG WITH a Partial Physical Prompt (because this is one level higher than the previous prompt)
- The child responds correctly, so you
  - Provide praise + a favorite toy
  - Record the data.



#### **Teaching Trial 6: Bird**

- Before you begin this trial, you review the datasheet to determine which prompt level to begin with. Because this is the second teaching trial of "bird," you should begin with one prompt level lower than the one you ended with on the first teaching trial for this target. No prompt was necessary in the first trial, so in this case, you will not provide a prompt immediately.
- Arrange your materials
- Secure the child's attention
- Present an appropriate instruction for the target (bird) and begin waiting (up to 3 seconds)
- The child selected the bird card and handed it to you after only 1 second, which is a correct response, so you
  - Provide praise + a favorite toy
  - Record the data.

Targe	t:	🗵 Correct 🛛 Error	
6	bird	GP DPP FP	🗵 Ind

#### **Teaching Trial 7: Dog**

- Review the datasheet to determine the beginning prompt level
- Arrange the flashcards
- Secure the child's attention

- Present an appropriate instruction while providing a Gestural prompt because this is one level lower than the prompt that you recorded for the previous teaching trial for dog.
- The child selects the dog picture and hands it to you, so you
  - Provide praise + favorite toy
  - o Record data

Target:	🗵 Correct 🛛 Error
7. <b>dog</b>	

### **Teaching Trial 8: Cow**

- Review the datasheet to determine the beginning prompt level
- Arrange the flashcards
- Secure the child's attention
- Present an appropriate instruction while providing a Gestural prompt because this is one level lower than the prompt that you recorded for the previous teaching trial for cow.
- The child touches the dog picture and then hands you the cow picture, so you
  - Pick up the flashcards
  - o Represent the flashcards in the same order
  - Secure the child's attention
  - Represent the same instruction along with a Partial Physical Prompt.

- The child jerks his hand away and does not select a card, so you
  - Pick up the flashcards
  - Represent the flashcards in the same order
  - Secure the child's attention
  - Represent the same instruction along with a Full Physical Prompt.
- The child hands you the picture of the cow while you are assisting him, so you
  - Provide praise + favorite toy
  - Record data

Targe	t:	🗵 Correct 🛛 Error	
8.	COW	🗆 GP 🗆 PP 🖾 FP 🗆	Ind

#### **Teaching Trial 9: Bird**

- Review the datasheet to determine the beginning prompt level, if a prompt is necessary.
- Arrange the flashcards
- Secure the child's attention
- Present an appropriate instruction and begin waiting (up to 3 seconds) because no prompt was required in the previous trial.
- The child quickly selects bird and hands it to you, so you
   Provide praise + favorite toy

- Gently remove the toy.

YOU DID IT! YOUR DATASHEET SHOULD LOOK LIKE THIS:

	Discr	ete Tr	ial Tr	aini	ng	Datas	hee	ət	v.
Participant #_					Date:				
	= Gestural P = Independe		onse (no				Phys	sical Pror	npt
	Check the pr						ne co	rrect res	oonse
Target:	COW		Ind		GP	$\boxtimes$	PP		FP
Target:	bird	$\boxtimes$	Ind		GP		PP		FP
Target:	d og		Ind	X	GP		PP		FP
	Trials: Indicate whether the student made a correct or error response and check the highest prompt level used								
Target:	_		Correct						
1	dog	$\mathbf{X}$	GP		РР		FP		Ind
Target: 2.	bird		Correct GP			Frror	FP	$\boxtimes$	Ind
Target: 3.	cow		Correct GP			Frror 区	FP		Ind
Target: 4.	cow		Correct GP			Frror	FP		Ind
Target: 5.	dog		Correct GP		⊠ E PP	Frror	FP		Ind
Target:	<u>u 05</u>		Correct						
6	bird		GP		PP		FP	$\boxtimes$	Ind
Target: 7.	dog		Correct GP			Frror	FP		Ind
Target: 8.			Correct GP			Frror	FP		Ind
Target: 9.	bird		Correct GP			Frror	FP	X	Ind

You made it to the end! If you have any remaining time, please look over the manual and practice what you have learned. ©