

Implementing Discrete Trial Teaching

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Goals of Training

- ▶ Understand proper implementation of Discrete Trial Teaching
- ▶ Understand components of a discrete trial
- ▶ Understand prompting
- ▶ Understand prompt fading
- ▶ Understand fluency tasks

Discrete Trial Teaching

- ▶ What is it?
 - ▶ Breaking a skill into smaller parts
 - ▶ Teaching one sub-skill at a time until mastery
 - ▶ Providing concentrated teaching
 - ▶ Providing prompting and prompt fading as necessary
 - ▶ Using reinforcement procedures

- ▶ We use DTT on a daily basis with our clients

5 Components of DTT

- ▶ Each unit of DTT consists of 5 components
 1. SD or discriminative stimulus
 2. Response
 3. Prompt (if needed)
 4. Consequence (reinforcement)
 5. Intertrial interval

Discriminative Stimulus (SD)

- ▶ Stimulus that signals that a given response will be reinforced
- ▶ An individual (discriminates) that under certain conditions, engaging in a behavior will be followed by reinforcement
- ▶ An SD can be:
 - ▶ An object (toy car)
 - ▶ Verbal directive (“clap hands”)
 - ▶ Visual (picture/notecard)
 - ▶ Action/part of a chain (turn on the water)
 - ▶ Cue from the natural environment (street light turns yellow)

SD

- ▶ Guidelines for designing and delivering SD's
 - ▶ Obtain student attention first
 - ▶ Instruction should be simple and clear - be concise!
 - ▶ Consistent
 - ▶ Appropriate language and intonation (speak clearly and at an appropriate volume)

Response

- ▶ Whatever the individual does immediately following the SD (within 3-5 seconds, may be slightly longer if individual has a delay in processing).
- ▶ Response can be:
 - ▶ Correct Response
 - ▶ Incorrect Response
 - ▶ No response

Prompt

- ▶ Assistance given to an individual designed to promote a correct response
- ▶ Prompts help build a connection between the SD and the desired response
- ▶ Prompts speed up the learning process because they prevent errors from occurring, reduce frustration, and allow the RBT to provide reinforcement.

When should I prompt?

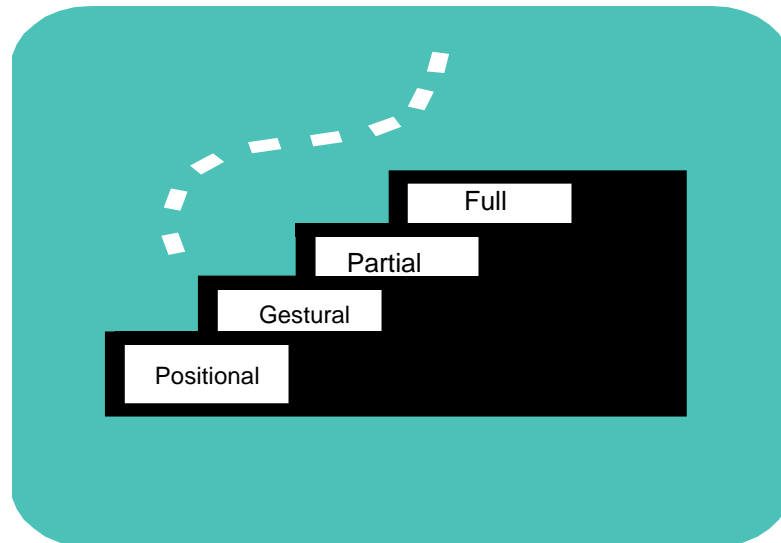
- ▶ When delivering an SD, a correct response is always expected.
- ▶ If the individual responds incorrectly or does not respond, the response is ignored, the trial is over and data is collected. A prompted trial should follow.
- ▶ If an individual responds incorrectly after a prompted trial was provided, the RBT should follow up with two prompted trials.
- ▶ If an individual is struggling to acquire a skill, frequent prompts can be used in order to ensure the individual is receiving reinforcement for the desired response, and is not subject to being incorrect.

Prompting Hierarchy

- ▶ **Full Physical Prompt (FP)**- Manipulating the student's body to perform the targeted response.
- ▶ **Partial or Faded Physical Prompt (↓PP)**- Use of a lesser amount of physical contact.
- ▶ **Gestural Prompt (G)**- Cueing the student with a body movement that indicates the correct response.
- ▶ **Proximal Prompt (a.k.a. Positional Prompt) (POS)**- Placing a target item in such a way that the individual is more likely to respond correctly.
- ▶ **Visual Prompt (VS)**- A written or picture presented in such a way as to elicit the correct response.
- ▶ **Verbal Prompt (VB)**- Telling the student the correct response.
 - ▶ Verbal prompts are used only when a verbal response is required
- ▶ RBT's should utilize a least-to-most prompting hierarchy (least amount of assistance first and increase assistance as needed)

Prompt Fading

- ▶ Fading: It is important to reduce the level of prompting as the individual begins to respond correctly.
- ▶ Needed for a child to perform a task independently.
- ▶ Prompt fading is used to transfer stimulus control from the extra stimulus to the appropriate S^D .
- ▶ If we fail to systematically reduce our level of prompting the student may become prompt-dependent



Consequence (Reinforcement)

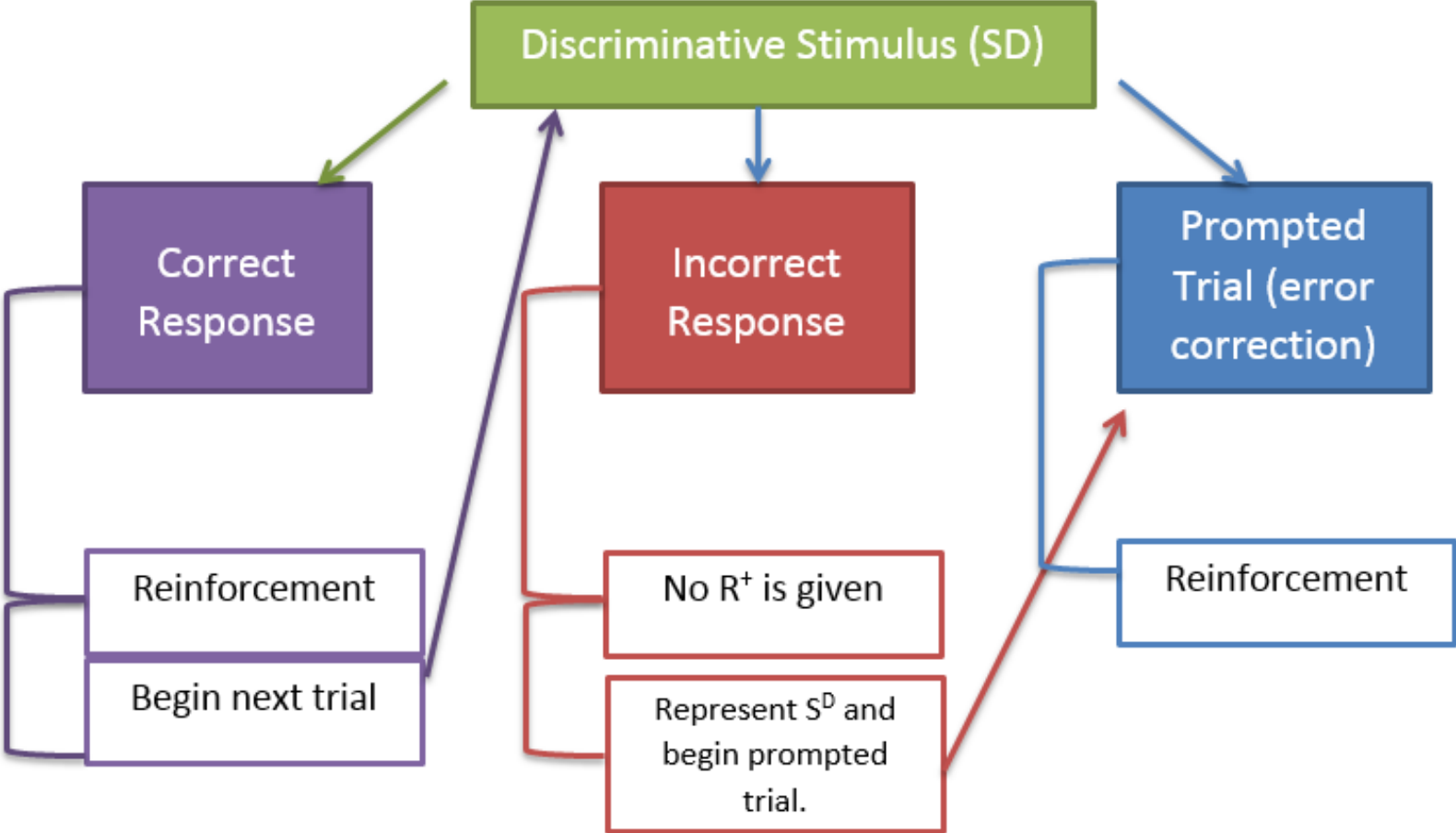
- ▶ Reinforcement - something we do (some stimulus added or removed) that increases the occurrence of a behavior in the future.
- ▶ Positive reinforcement - stimulus is added after a behavior occurs that increases the future frequency of a behavior (i.e. food, toy, token, etc.)
- ▶ Negative reinforcement - stimulus that is removed after a behavior occurs that increases the future frequency of a behavior (i.e. work removed)

- ▶ We typically use positive reinforcement contingencies in DTT
- ▶ We will review reinforcement in more detail in another training session

Intertrial Interval

- ▶ Brief pause between the conclusion of one trial and the beginning of the next trial.
 - ▶ Data is recorded during the intertrial interval
 - ▶ Clarifies the end of one trial and beginning of another
 - ▶ Clear the field
 - ▶ Document data
 - ▶ Assess prompting needs
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- ▶ During the ITI, you will be preparing materials for the next trial.
 - ▶ When preparing materials remember:
 - ▶ Materials should stay in the same order when representing a prompted trial
 - ▶ Once the individual responds to a prompted trial, you should represent the same target (probe), but change the order of the materials to ensure the individual does not choose based on position.

DTT Flow Chart



DTT Treatment Integrity

DTT Implementation Reliability Checklist

A DTT implementation reliability checklist ensures that DTT teaching interventions are implemented as they are intended with high reliability. The ABA consultant or ABA Trainer will take implementation reliability data during ABA therapy sessions to ensure that therapists are reliably implementing the intervention.

Therapist/Trainee: _____ ABA Consultant /Trainer: _____

DTT: T.A.

1. Therapist ensures child is ready for session (no materials on table/child is seated).	Y	N	
2. Therapist has appropriate materials for program.	Y	N	
3. Therapist gains child's attention prior to giving SD.	Y	N	
4. Therapist gives SD as written on Task Analysis (this includes presenting any material).	Y	N	
5. Therapist gives SD ONE time only.	Y	N	
6. Therapist uses upbeat intonation.	Y	N	
7. Therapist does not use extra excessive language.	Y	N	
8. If child's response is correct, therapist provides high reinforcement.	Y	N	NA
9. Therapist pairs primary reinforcement with behavior specific verbal praise.	Y	N	
10. If child's response is incorrect, therapist begins a prompted trial.	Y	N	NA
11. Therapist uses least intrusive prompt necessary.	Y	N	NA
12. Therapist increases prompting if necessary (by going up prompting hierarchy).	Y	N	NA
13. Therapist does not inadvertently prompt child to the correct response.	Y	N	
14. Therapist provides verbal prompts only for programs requiring a verbal response.	Y	N	NA
15. Therapist provides praise/moderate reinforcement for prompted correct trials.	Y	N	NA
16. Therapist keeps materials in same order for a prompted trial.	Y	N	NA
17. Therapist clears the field prior to giving next SD.	Y	N	
18. Therapist records data during inter-trial interval.	Y	N	
19. On probe (after prompted response), if child is incorrect, therapist provides 2 prompted trials.	Y	N	
20. Once trial is independently correct, therapist gives SD of another program (not mass trial).	Y	N	
21. Therapist changes order of materials following correct responses.	Y	N	NA
22. Therapist does not provide prompts for baseline skill acquisition programs.	Y	N	NA
23. Therapist reinforces other appropriate behaviors during baseline programs.	Y	N	NA
24. Therapist runs maintenance programs according to the correct maintenance schedule.	Y	N	NA
25. Therapist runs any incidental teaching programs the child is working on.	Y	N	NA
Percentage Reliable: (Y/Y+N)			

Fluency Tasks

- ▶ Mastered task client can complete or engage in independently without the instructor's guidance
 - ▶ Task should be mastered
 - ▶ Task should not elicit problem behavior
- ▶ Fluency tasks are utilized to give the RBT time to prepare materials, graph data, or complete other tasks that might briefly take your attention away from the client, while keeping the client engaged
- ▶ Examples of fluency tasks include: puzzles, sorting tasks, worksheets, flashcards, reading/looking at a book, etc.

Let's review what we discussed.

All of the following are components of DTT except?

- Response
- SD
- Consequence
- Baseline
- Prompt

All of the following are components of DTT except?

Baseline

This is a stimulus that signals the availability of reinforcement, or that a given response will be reinforced.

- Prompt
- Positive Reinforcer
- SD
- Consequence

This is a stimulus that signals the availability of reinforcement, or that a given response will be reinforced.

- SD

When should data be collected on DTT?

- After you deliver the SD
- On a child's break
- Immediately following an incorrect response
- During the inter-trial interval (ITI)

A child is working on gross motor imitation. Trial one is incorrect, next the BT provides a prompted trial. Following the prompted trial the BT probes another trial. The response is incorrect again, what trials should follow?

- Prompted trial
- Two prompted trials
- Probe trial
- Correct trial

A child is working on gross motor imitation. Trial one is incorrect, next the BT provides a prompted trial. Following the prompted trial the BT probes another trial. The response is incorrect again, what trials should follow?

- Two prompted trials

What is provided immediately following a correct response?

- Consequence (Reinforcement)
- Consequence (punishment)
- Inter-trial interval
- Prompted trial

What is provided immediately following a correct response?

- Consequence (Reinforcement)

What purpose does the inter-trial interval serve?

- Clarify the end of one trial and the beginning of the next
- Assess prompting needs
- Document data
- Clear the field
- All of the above

What purpose does the inter-trial interval serve?

- All of the above

What does clear the field mean?

- Ensure the individual's work area is free of distractions
- Remove all materials following a trial before the presentation of the next trial
- Ensure all pictures are rotated to prevent responding based on position
- Placing all materials in a clear bin to promote requests for the items

What does clear the field mean?

- Remove all materials following a trial before the presentation of the next trial

This procedure involves breaking down a skill into smaller parts, teaching on sub-skill at a time until mastery, providing concentrated teaching, providing prompting and prompt fading as necessary and using reinforcement procedures.

- Prompt fading
- Task Analysis
- Discrete Trial Teaching
- Differential reinforcement of alternative behavior

This procedure involves breaking down a skill into smaller parts, teaching on sub-skill at a time until mastery, providing concentrated teaching, providing prompting and prompt fading as necessary and using reinforcement procedures.

- Discrete Trial Teaching

True or false: You should vary your SD during teaching to ensure the child can respond to multiple instructions.

False: You should vary your SD during teaching to ensure the child can respond to multiple instructions.

SD should remain consistent in order to teach the child how to respond to the instruction. Once child masters instruction, then you should generalize the skill to other similar instructions.

What is a fluency task?

A task the client has mastered that you can provide them to engage in independently. Individual can complete task without adult guidance. While the individual is completing fluency tasks the BT is able to prepare materials, graph data, or complete other quick tasks that might otherwise take your attention away from the client briefly