On Your Path to Excellence in Teaching: Constant Time Delay (CTD) Instructional Procedure

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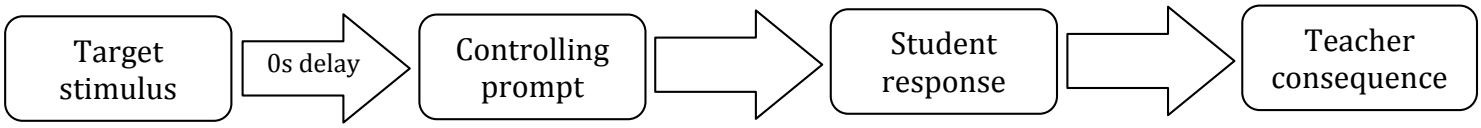
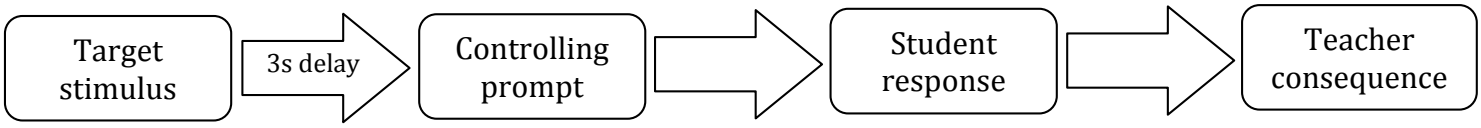
WHAT IS CTD?

- CTD is a systematic response prompting strategy.
- It involves the teacher presenting a target stimulus and then immediately delivering a controlling prompt (0s delay). On subsequent trials, the controlling prompt is delayed for a specific number of seconds and then if the student does not respond, the prompt is delivered (delay trials).
- It is an evidence-based strategy and has been shown to be effective in teaching many different skills to students with a variety of disabilities including individuals with mild-severe intellectual disabilities, autism spectrum disorders, learning disabilities, and those without disabilities. It also has been used effectively with preschoolers through adults.
- The schematic below shows the trial sequence for 0s CTD



- The schematic below shows the trial sequence for delay interval (e.g., 3s) CTD



CTD GLOSSARY OF TERMS

- **Prompts**- teacher behaviors presented to increase the probability of correct responding (assistance provided by the teacher).
- **Controlling prompt**- teacher behavior that, when used, will ensure that the student performs the target behavior.
- **Discrete skill**- a single behavior having a distinct beginning and ending.
- **Chained skill**- a number of discrete behaviors sequenced together to form a more complex skill.
- **Examples of prompts-** gesture, verbal, model, partial physical guidance, full physical guidance, audio, video, picture.

HOW TO

- Identify the target behavior to teach.
- Task analyze the behavior (if a chained skill).
- For both chained and discrete skills, select a controlling prompt (i.e., a prompt that when delivered will result in a correct response by the student).

0-second trials

1. Conduct 0-s trials by presenting the target stimulus and then immediately delivering the controlling prompt.
2. Provide the consequences for responding:
    - For corrects after the prompt (+A) Teacher provides reinforcer.
    - For incorrects after the prompt (-A) Teacher repeats the prompt.
    - For no responses after the prompt (0A) Teacher repeats the prompt.
3. Repeat until all steps or trials are completed.

Delay trials

1. Conduct delay trials by presenting the target stimulus, waiting a specific number of seconds, and then delivering the controlling prompt.
2. Provide the consequences for responding:
    - For corrects before the prompt (+B) Teacher provides reinforcer.
    - For incorrects before the prompt (-B) Teacher reminds the student to wait and then provides the prompt.
    - For corrects after the prompt (+A) Teacher provides reinforcer.
    - For incorrects after the prompt (-A) Teacher repeats the prompt.
    - For no responses after the prompt (0A) Teacher repeats the prompt.
3. Repeat until all steps or trials are completed.

CONSIDERATIONS

- Determine the controlling prompt based on the individual learning needs and characteristics of the student.
- Determine the number of sessions conducted at 0-s delay.
- Determine the number of seconds to use during the delay trials.
- Create a data sheet and collect ongoing student performance data.
- Graph the student data, adapting and modifying instruction if adequate progress is not being made.

RESOURCES

Collins, B. C. (2012). *Systematic instruction for students with moderate and severe disabilities*. Baltimore, MD: Brookes.

DATA SHEET EXAMPLES

Example 1

Student: _____ Teacher: _____

Task: _____

Date:			Date:			Date:		
Delay:			Delay:			Delay:		
Stimulus	E	A	Stimulus	B	A	Stimulus	B	A
1.			1.			1.		
2.			2.			2.		
3.			3.			3.		
4.			4.			4.		
5.			5.			5.		
# correct			# correct			# correct		
% correct			% correct			% correct		
# incorrect			# incorrect			# incorrect		
% incorrect			% incorrect			% incorrect		
# NR			# NR			# NR		
% NR			% NR			% NR		

Comments:

Example 2

Student: _____ Teacher: _____

Time to initiate: _____ Time to complete:_____

Date /Delay Interval:						
Task Analysis	B	A	B	A	B	A
1.						
2.						
3						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
# correct						
% correct						
# incorrect						
% incorrect						
# NR						
% NR						

Key: + = correct, - = incorrect, 0 = no response

Comments: