

Guidelines for Using Noncontingent Reinforcement (NCR)

Definition and Goal

- NCR is an antecedent intervention that involves the delivery of a reinforcer on a time-based schedule, independent of the student's behavior.
- The goal is to prevent and decrease challenging behaviors by enriching the student's environment (e.g., providing positive stimuli that may reduce the motivation for engaging in challenging behavior).

Materials for Implementing NCR

Data sheet, timer, potential reinforcers

NCR Procedures

- 1** Observe the student's behavior and collect baseline data (on at least 3 separate occasions) during the activity and setting in which challenging behavior most often occurs. Make sure to record the duration of the observation AND the number of times the behavior occurs during the observation.
- 2** Identify potential reinforcers. These can be a functional reinforcer or something arbitrary that has been identified as preferred. If arbitrary reinforcers are used, student preferences should be assessed frequently to ensure they are still preferred. A token system may be used for some students, that can be cashed in at the end of the NCR intervention session for earning a preferred item or activity.

- 3 Set a timer for the designated interval of time that you will provide the student with a reinforcer. This is determined by the student's baseline data (see example below). It is optimal to use a silent timer that cannot be heard or detected by the student or their peers (e.g., iPhone set to vibration mode).
- 4 Identify the amount of time the student will have access to the reinforcer (e.g., 30 s., 60 s. 120 s. etc.).
- 5 Start the timer.
- 6 Deliver a functional or arbitrary reinforcer when the timer goes off and pair this with behavior specific praise for the identified amount of time.
- 7 Reset the timer and continue this process for the duration of the targeted activity, routine, or teaching session.
- 8 **Optional** – Refrain from delivering reinforcement within 30 seconds of challenging behavior to prevent unintended reinforcement.

How to Determine the Initial NCR Interval

1 Divide the total duration of all baseline sessions (in seconds) by the total number of occurrences of challenging behavior

Example:

2,700 seconds (3-15 min observations)/30 (instances of challenging behavior) = 90 s.

2 Set the initial NCR interval at or less than that number.

Example:

80-90 s. intervals

How to Increase or Decrease The NCR Interval

This can be done by implementing a constant time change (e.g., increasing or decreasing the interval by a specified period-of time; 5 s.) or a proportional time change (e.g., increasing or decreasing the interval by a specified proportion of time; 5%).

***To prevent re-emergence of challenging behavior, it is best to increase the time by small intervals.**

Criteria for Changing the NCR Intervals

- Criteria to **increase** NCR interval: 3 consecutive sessions with target challenging behavior at an 80% or greater reduction from baseline
- Criteria to **decrease** NCR interval: 3 consecutive sessions with target challenging behavior at or above mean baseline levels

Examples of Function-Based Reinforcers		
Attention	Escape	Tangible
Social interaction with staff	Brief break from work or activity	iPad
Reading a book together	Going on a walk	Playdoh
Playing a game together	Time in a tent	Ball game

Examples of Behavior-Specific Praise	
Behaviors	Sample Statements
Hands to self	I like that you are keeping your hands to yourself, let's play!
Independent work	Great focusing on your work, let's go for a walk.
Listening	Thanks for listening, here is your iPad.
Using nice words	Great job using nice words, here is your token.
Sitting	Good sitting, here is your token.