



## VIRTUAL STRATEGIES TOOLKIT

Evidence-Based Practices for Individuals with ASD and other Developmental Disabilities

## DIFFERENTIAL REINFORCEMENT

### Definition

Differential reinforcement is a behavior change technique used in Applied Behavior Analysis (ABA), which involves selectively reinforcing desired behaviors while withholding reinforcement for undesired behaviors.

### Video

### How to Use

There are five different main types of differential reinforcement. These variations are based on what type of behavior is being reinforced and the schedule of reinforcement.

Differential Reinforcement of Alternative Behavior (DRA) procedures reduce a problematic behavior by reinforcing an appropriate alternative behavior that serves the same function. Begin by identifying the likely function of the behavior, then choose a behavior that earns the child the same reinforcer as the challenging behavior, but in a more appropriate way, to reinforce. The replacement behavior should be as easy or easier to get the desired outcome as the problem behavior.

Differential Reinforcement of Incompatible Behavior (DRI) procedures are similar to DRA procedures; however, the behavior you choose is incompatible with the problem behavior. For a behavior to be incompatible, the child cannot perform the chosen action and the problem behavior at the same time. Again, the behavior you select to reinforce should serve the same function as the problem behavior.

Differential Reinforcement of Other Behavior (DRO) procedures reinforce the absence of the target problem behavior. This procedure is easy to implement because you aren't looking to reinforce a specific behavior, rather you provide reinforcement at the end of an interval that was free of the target behavior. Because you are reinforcing the absence of the challenging behavior, it's not necessary that you accurately identify the function of the behavior. Use DRO for those behaviors that are multiply maintained or where you have been unsuccessful in identifying the function.

Differential Reinforcement of Lower Rates of Behavior (DRL) are used for a behavior you want to reduce but not eliminate. Differential Reinforcement of Diminishing Rates of Behavior (DRD) are a type of DRL where the lowering of behavior rates comes from increasing the time between responses.

Differential Reinforcement of Higher Rates of Behavior (DRH) systematically reinforces incremental increases in the rate of that behavior. This is used when your learner is displaying a behavior, but at a lower rate than you'd like to see.

## Steps in Differential Reinforcement

1. *Define the target behavior*
2. *Identify the function(s) of the target behavior (Optional for DRO)*
3. *Choose reinforcers*
4. *Collect baseline data*
5. *Determine the type of differential reinforcement procedure you will use*
6. *Set the criteria*
7. *Determine your procedures*
8. *Implement the intervention*
9. *Collect and analyze data*
10. *Make changes as needed*

## When to Use

DRH = when you want to increase the rate of a behavior

DHI = when you want to substitute a behavior but don't have a functional replacement

DHL = when you want to decrease the rate of a behavior, but don't want to eliminate it

DRO = when you want to eliminate a behavior

DRA = when you want to increase a behavior to functionally replace it in a more appropriate way

## Variations

Type of Differential Reinforcement	What to Reinforce	Applications
DRA	A functionally-equivalent alternative behavior	Widely applicable for reducing maladaptive behavior
DRI	A functionally-equivalent incompatible behavior	Widely applicable for reducing maladaptive behavior, used to differentially reinforce independent responding
DRO	The absence of the target behavior	Useful in reducing potentially dangerous behavior
DRH	Behavior occurring at a rate above a pre-determined minimum rate	Useful in increasing the rate of desired behaviors that are in a learner's repertoire but occur too infrequently
DRL	Behavior occurring at a rate below a pre-determined maximum behavior	Adjusting the rate of appropriate behavior that occurs too frequently

<https://masteraba.com/differential-reinforcement/>

## Additional Resources

[ReadySetABA YouTube Video](#)

## Research

Boudreau, B. A., Vladescu, J. C., Kodak, T. M., Argott, P. J., & Kisamore, A. N. (2015//Winter). A COMPARISON OF DIFFERENTIAL REINFORCEMENT PROCEDURES WITH CHILDREN WITH AUTISM. *Journal of Applied Behavior Analysis*, 48(4), 918-923. doi:<https://doi.org/10.1002/jaba.232>

Hausman, N. L., Ingvarsson, E. T., & Kahng, S. (2014). A comparison of reinforcement schedules to increase independent responding in individuals with intellectual disabilities. *Journal of Applied Behavior Analysis*, 47, 155-159. doi: 10.1002/jaba.85

<https://www.nu.edu/blog/what-is-differential-reinforcement/#:~:text=Differential%20reinforcement%20is%20a%20behavior,withholding%20reinforcement%20for%20undesired%20behaviors>.

Vladescu, J. C., & Kodak, T. (2010//Summer). A REVIEW OF RECENT STUDIES ON DIFFERENTIAL REINFORCEMENT DURING SKILL ACQUISITION IN EARLY INTERVENTION. *Journal of Applied Behavior Analysis*, 43(2), 351-5. Retrieved from <https://www.proquest.com/scholarly-journals/review-recent-studies-on-differential/docview/520098743/se-2>

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