So, Tell Me What You Want, What You Really, Really Want:

Calibrating Reinforcement Schedules to Optimize Outcomes for Learners with Challenging Behavior.

Master Teacher Strand - goo.gl/uy2QCx
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Consequences 101

So we are all on the same wavelength

Consequence Influences

- ★ Consequences that follow a behavior that **increase** its future likelihood is a "reinforcer"
- ★ Consequences that follow a behavior that **decrease** its future likelihood is a "punisher"
- ★ Consequences that follow a behavior that **neither** increase or decrease its future likelihood is a "neutral stimulus"

Consequences that Reinforce

- ★ Social Positive Reinforcement – Something is gained
  - Attention
  - Tangibles (Stuff/Activities)
- ★ Social Negative Reinforcement - Things we don't like are escaped or avoided

THAT INCREASES THE FUTURE LIKELIHOOD OF THAT BEHAVIOR

Consequences that Punish

- ★ Positive Punishment– Something is given (added)
- ★ Negative Punishment - Taking something we like away (removed)

THAT DECREASES THE FUTURE LIKELIHOOD OF THAT BEHAVIOR

Preference and Reinforcer Assessments

A companion to the FBA

Preference Assessments

Preference Assessments are procedures that are implemented to identify 'potential' reinforcers.

•Note: An item that is identified as highly preferred may not necessarily serve as a reinforcer.

•Recall: A reinforcer is something that will increase behavior.

Direct Observation Preference Assessments

- ★ Single Stimulus
- ★ Forced – Choice (paired choice)
- ★ Free Operant
- ★ Multiple Stimulus with and without replacement
- ★ Advantage: Can be done if student is non-verbal
- ★ *Validity is gained through the follow through of engaging in the activity after the choice is made.*

Through interview or card sort

Preference Assessment Questionnaire (Lee, J.F., 2014)

Link to the PAQ shared with permission from John Lee.

Short url - goo.gl/MW6tZw

Advantages

Disadvantages

Limits of Preference Assessments

- ★ Preference assessment is a method of determining potential reinforcers.
- ★ PA's enhance the chances that an item will serve as reinforcer but there is no guarantee.

  It will likely eliminate non-preferred items.
- ★ **If the provision of the item doesn't increase behavior it's not a reinforcer.**

Basic Reinforcer Assessment

- ★ First identify a task in which you can obtain a baseline level of performance.
- ★ Additional requirements:
  - The task must be a discrete measure
  - The task should have a low level of performance without reinforcement (Not Preferred)
  - Responses can be easily measured
    - Matching letters to corresponding picture cues.

Basic Reinforcer Assessment

- ★ The child is asked to perform the task **w/o any reinforcement**.
- ★ Choose one of the highly preferred items **(80%+ chosen)** generated from the PA.
- ★ Then provide the task to the child with the contingency that the child will receive the preferred item after a fixed number of responses
- ★ If the child **increases** their work performance then the item has indeed been identified as a **reinforcer**.

Motivating Operations

The changing value of reinforcers

Real-Life Example of an Establishing Operation

EO
Running 10 Miles

Value Altering

Behavior Altering

Establishes Water as an Effective Reinforcer

Momentarily increases water drinking behavior

Real-Life Example of an Abolishing Operation

AO
Drink large amount of water

Value Altering

Behavior Altering

Abolishes Water as an Effective Reinforcer

Temporarily terminates water drinking behavior

Motivating Operations (MO's)

- ★ Something that happens in the environment BEFORE the behavior occurs (an antecedent)
- ★ Has 2 effects on the consequence (reinforcer or punisher)
  - ○ Value altering (alters the value, + or -)
  - ○ Behavior Altering (alters the momentary frequency of behavior)

2 Types of Motivating Operations (MO)

1. Establishing Operation (EO)
   a. Increases the value of a consequence
   b. Increases the momentary frequency of a behavior
2. Abolishing Operation (AO)
   a. Decreases the value of a consequence
   b. Decreases the momentary frequency of a behavior

Why are MO's Important?

- ★ May answer the question, "Why is an item reinforcing sometimes and not others?"
- ★ We can change the value of a reinforcer by making simple changes in the environment
- ★ We can alter "triggers" to problem behavior

Common Antecedent Interventions that relate to MO's

Some common Antecedent Interventions that affect the value of reinforcers

- Choice
- High-probability sequence
- Noncontingent reinforcement
- Time delay
- Contriving motivating operations

Practical Considerations for MO's

★ Remember that a reinforcer not only has to be valuable to the person, but also avaliable to occasion the behaviors we want. (4 term contingency)

MO	Avalibility (SD)	Behavior	Consequence
We have to want it	It has to be available	We have to do it	It has to pay off

★

★ Take into consideration **Response Effort.** What may be an motivation for a low effort response may not for a task that requires more effort.

Practical Considerations continued

★ **Reinforcer Variation**. Alter the type and class of reinforcer provided throughout the day and/or session.

★ **Reinforcer Choice.** Offering choice among multiple potential reinforcers is a great way to mitigate waning motivation.

★ **Adjust to Current Environment**. Consider environmental events (e.g., lunch) that likely have strong establishing or abolishing effects on reinforcers (e.g., edible items).

Reinforcement Schedules

Not all are created equal

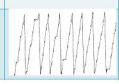
Types of Reinforcement Schedules

★Ratio Schedules

★Interval Schedules

★Fixed and Variable versions of each

- Fixed – best used for acquisition of skills
- Variable – best used for Maintenance/ Generalization

Type	Ratio		Interval	
requirement	# of responses		Amount of time	
Sub-type	Fixed	Variable	Fixed	Variable
Rate of responding	High	High	Low-moderate	Low-moderate
responding	Unsteady	Steady	Unsteady	Steady
Pattern				

The steeper the slope, then it's dope. If the line goes flat, you better watch that.

Chart Provided by Christina Reed Florida Institute for Technology

Using data to determine reinforcement schedules.

What does their current behavior tell us that they need?
Baseline…
Error on the side of success…

Thinning Reinforcement Schedules

Great, now Kaye is going to expect a car for graduation!

Thinning

- ★ Thinning is when the reinforcer gradually becomes available less often (Alberto & Troutman, 2013)
- ★ This needs to be done with thought and planning.
  - FR1 to VR2 to VR4 until you get to a schedule that is similar to naturally occurring schedules in the school day.
- ★ Shift from contrived to naturally occurring reinforcers.
  - For example, pairing external tangible reinforcers with high quality behavior specific praise & attention; point out good things that have happened as a result of desired behaviors.

Thinning Non-Contingent Reinforcement Schedules

- Usually based on time (as the reinforcement is not contingent on behavior)
- Short - Find where the kid is and build proportionally from there.

- Lalli, Casey, and Kates (1997) set the initial NCR schedule based on the mean latency to the first problem behavior observed during baseline and subsequently (every 4 sessions) increased the FT intervals by either 30, 60, or 90 seconds.

What do I do when they won't give up their reinforcer?

Alternatives to ripping things from their sweaty little clutched death-grip kung-fu fists and putting crying on extinction.

Strategies to avoid power struggles over ending a break…

Step down from HP to MP to LP.
Take a detour through a neutral activity rather than trying to move from a heaven to hell.

Points for giving it up.
Subway punch card for giving it up…. 10th one is free!

If we want to increase a behavior we reinforce, stopping when asked is a behavior we want to increase… reinforce it.

A rolling stone gathers no problem behavior… Roll into choice for the next activity or present the work with the toy, then move attention to the work.

Signal when time is going to be up… 3 min left, 1 min left, time's up. Making the transition predictable and informing the person when the Rx is available again (F/T).

Put Rx in timeout for one rotation*
This is a punishment strategy.

THANKS!

Any questions?

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