“Rewards Don’t Work!”
Fine-Tuning Reward Systems to Increase Effectiveness in School-Based Settings

May Institute New England Positive Behavior Support Forum; 11/14/2019

Presented by Chris Barclay, PhD, BCBA, NCSP
and Erin Crosby, MA, BCBA

“Do-Now”

Directions: Independently Complete the “Staff Forced-Choice Reinforcement Menu” worksheet by:
1. Read through the 2 reward options presented for each item
2. Make a “check” in the box for the item you would prefer
3. Complete scoring on page 3 by adding total checks in each column (1-4) and write the total on the line provided

Today’s Learning Objectives

Attendees will learn how to:
1. Explain five key factors that may influence the effectiveness of reinforcement systems
2. Learn to use a practical tool for assessing how well existing behavior intervention plans align with factors impacting the effectiveness of reinforcement, in order to make meaningful improvements to plans
3. Effectively respond to common statements of resistance to providing reinforcement

Session Outline

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of Function-Based Reinforcement</td>
<td>20 min.</td>
</tr>
<tr>
<td>Immediacy</td>
<td>8 min.</td>
</tr>
<tr>
<td>Frequency</td>
<td>8 min.</td>
</tr>
<tr>
<td>Size/Amount</td>
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<td>Contingency</td>
<td>8 min.</td>
</tr>
<tr>
<td>Variety/Choice</td>
<td>8 min.</td>
</tr>
</tbody>
</table>

Choose Your Own Adventure:
- Practice with the Reflection Tool OR
- Promoting Buy-In & Rolling with Resistance

15 min.

Session Routines:

Materials & Handouts:
“Rewards Don’t Work!”

Fine-Tuning Reward Systems to Increase Effectiveness in School-Based Settings

Has this ever happened to you?

This reward system isn’t working!

Operationalizing the Problem

Even the best-laid reinforcement plans may fail...

The Plan Itself

The Implementation of the Plan

• Parameters of reinforcement in the plan were unspecified or inadequate

Why Reinforcement Systems?

• Build relationships
• Provide instant feedback to students for desired behaviors
  • Reinforcing Praise Statements makes them more likely to occur again in the future
• Focus attention on desired behaviors
• Provide a reminder to staff to pay attention to and reinforce desired behaviors
• Build internal motivation

 Aren’t “Rewards” Dangerous?

• “...our research team has conducted a series of reviews and analysis of (the reward) literature; our conclusion is that there is no inherent negative property of reward. Our analyses indicate that the argument against the use of rewards is an overgeneralization based on a narrow set of circumstances.”
  • Judy Cameron, 2002
  • Cameron, 2002
  • Cameron & Pierce, 1994, 2002
  • Cameron, Baran & Pierce, 2001

Aren’t extrinsic rewards detrimental to intrinsic motivation?

• Extrinsic Motivation: Behavior that is driven by external rewards (items, activities, recognition)
• Intrinsic Motivation: Behavior that is driven by internal rewards (naturally satisfying)
  • What are some tasks you are intrinsically motivated to perform?
  • What are some tasks you are extrinsically motivated to perform?

Myth Busters

We are all intrinsically motivated to do some things and extrinsically motivated to do other things.

Extrinsically motivated to do something
• What are some tasks your student is intrinsically motivated to perform?
• What are some tasks your student is extrinsically motivated to perform?

Intrinsically motivated to do something

• “The undermining effect of extrinsic reward on intrinsic motivation remains unproven”
  • Steven Reiss, 2005

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**How much** reinforcement is **OPTIMAL?**

- Business Teams
- Learning Supports
- Proactive Interaction
- Behavior Corrections

5:1

5 positive interactions to 1 correction

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But wait, there are also **different types** of reinforcement!

What’s reinforcing to me at school or at home, might not be the same as what’s reinforcing to you.

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Do you know your “Love Language”?

*Just another way of thinking about the Functions of Behavior (i.e., what motivates us!)*

The 5 Love Languages

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Functions that behaviors serve:

- Problem Behavior
- Observed/Needed Something
- Escape/Avoid Something
- Stimulation/Sensory
- Social
- Tangible/Activity

Adult

Peer

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Let’s Look at your “Do Now” Question!

Based on this self-assessment, which types of “rewards” did you prefer?

A. Recognition/Approval (aka Attention)
B. Rest & Relaxation (aka Sensory)
C. Item/Food (aka Access)
D. Acts of Service/Free Time (aka Escape)

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What would happen if the only “reward” I offered was recognition or approval?

How many of you chose something different and as such might be less motivated?

How many of you actually find recognition/approval to be punishing?
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I think we’re on to something...

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Parameters of Reinforcement

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Consider...
What is motivating students to engage in the problem behavior?

Ex. Chris engages in disruptive behavior during class in order to obtain peer attention

What is most likely to be a powerful reward?
• Earning time on the iPad at the end of the day?
• A “no homework pass”?
• An activity with peers?

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What do my students prefer?
Survey students in order to identify preferences
• Which function?
• Which options within each function are most powerful

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When we can be sure we’ve established the right reinforcers...

✓ Considered Function
✓ Approved Student Preferences

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When we can begin to assess other factors that influence the effectiveness of reinforcement!
Case Study: Jerome

Differential Reinforcement Case Study #3

Jerome is a 5th grade student who often forgets to do his homework. His teacher has developed a reinforcement system for Jerome in order to increase his homework completion. Every time Jerome completes all of his homework, his teacher gives him a “Good Job” sticker on each completed paper. Sometimes, Jerome’s teacher checks his homework and gives him a Reese’s for his first thing in the morning. Sometimes, Jerome’s teacher doesn’t give him a Reese’s until the end of the day. Initially, Jerome appeared to be motivated by receiving the Reese’s and completed his homework for 3 nights in a row. Over time, Jerome’s homework completion decreased to pre-intervention levels. When Jerome’s teacher asks him, “Don’t you want to earn your Reese’s?” Jerome replies, “Nah, I don’t want any more of the same old Reese’s.”

Was the teacher’s reinforcement match the function of Jerome’s behavior? Explain:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Factor</th>
<th>Change you consider?</th>
<th>Why?</th>
</tr>
</thead>
</table>

Factors Influencing the Effectiveness of Function-Based Reinforcement

- **Immediacy**: What is the delay between behavior and reinforcement?
- **Frequency**: How many opportunities are there to earn per hour, day, week?
- **Size/Amount**: How much reinforcement is provided? How many? For how long?
- **Contingency**: How consistently does the response match the behavior?
- **Variety/Choice**: How well does the reward match students’ varied interests and motivations?

Overview

- **Immediacy**
- **Frequency**
- **Size/Amount**
- **Contingency**
- **Variety/Choice**

Immediacy

Ideally:

- Reinforcement is provided immediately after desired behavior

Common Concerns and Challenges:

- Tangibles – Physical access (e.g., across room)
- Activities – Prep required (e.g., log-in, unwrap)
- Attention – Personnel busy/unavailable
- Other challenges?

Potential Solutions:

- May involve some routine pre-work by staff
- Other solutions?

Tokens

When paired verbally, can serve as visual support to communicate:

- Expectations
- Positive feedback
- Progress towards goals

Overview

- **Immediacy**
- **Frequency**
- **Size/Amount**
- **Contingency**
- **Variety/Choice**

How would you rate the immediacy of Jerome’s reinforcement?

A. Good
B. Fair
C. Weak
D. Undefined/Inadequate
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Factors Influencing the Effectiveness of Function-Based Reinforcement

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Frequency

**Ideally:**
- Initial frequency of R+ slightly exceeds frequency of baseline challenging behavior (e.g., aggression 2x/day → 3 rewards/day)
- Intervals are designed to “guarantee” quick access at outset

Overview

- Immediacy
- Frequency
- Size/Amount
- Contingency
- Variety/Choice

Max 1 item/month

Common Concerns and Challenges:
- Frequent tokens with infrequent cash-in
- Not frequent enough = Gap between “losing” and “reset” (“Forget it!”)
- Too frequent = Satiation (“I’ve had enough of that.”)
- Other challenges?

Potential Solutions:
- Test the “criteria for earning” against recent patterns – does it allow more frequent access?
- MotivAiders for “catching ’em being good”
- Other solutions?

Jerome – Frequency

**Question!**

How would you rate the frequency of Jerome’s reinforcement?

- A. Good
- B. Fair
- C. Weak
- D. Undefined/Inadequate
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Size/Amount

Ideally:
• Size of reinforcement matches challenge of criteria

Common Concerns and Challenges:
• Too much – satiation (no hunger for more)
• Too little – not motivating enough
• Other challenges?

Potential Solutions:
• Start with low criteria for large amount, then increase criteria over time of intervention while keeping the same amount of reward
• Other solutions?

Factors Influencing the Effectiveness of Function-Based Reinforcement

Immediacy
• What is the delay between behavior and reinforcement?

Frequency
• How many opportunities are there to earn per hour, day, week?

Size/Amount
• How much reinforcement is provided? How many? For how long?

Contingency
• How consistently does the response match the behavior?

Variety/Choice
• How well does the reward match students’ varied interests and motivations?

Contingency

Ideally:
• Reinforcement is provided IF and ONLY IF desired target behavior occurs

Overview	Immediacy	Frequency	Size/Amount	Contingency	Variety/Choice	CYOA

Overview	Immediacy	Frequency	Size/Amount	Contingency	Variety/Choice	CYOA

Overview	Immediacy	Frequency	Size/Amount	Contingency	Variety/Choice	CYOA

Overview	Immediacy	Frequency	Size/Amount	Contingency	Variety/Choice	CYOA

Overview	Immediacy	Frequency	Size/Amount	Contingency	Variety/Choice	CYOA

Size/Amount

Jerome – Size/Amount

Question!

How would you rate the size/amount of Jerome’s reinforcement?
A. Good
B. Fair
C. Weak
D. Undefined/Inadequate
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Overview | Immediacy | Frequency | Size/Amount | Contingency | Variety/Choice | CYOA
---|---|---|---|---|---|---

Contingency

Common Concerns and Challenges:
- Feasibility of monitoring behavior
  - “I can’t catch him every time”
- Criteria inflation (“but she wasn’t on her best behavior”)
- Criteria deflation (“he tried so hard!”)
- Bootleg reinforcement (“I can get my reward in other ways”)
- Other challenges?

Potential Solutions:
- Collaboratively determine criteria for earning with feasibility in mind
- Clear operational definitions, with examples and non-examples
- Planned extinction (e.g., ignoring, praise-around, removal of access)
- Other solutions?

Motivating Operations

Overview | Immediacy | Frequency | Size/Amount | Contingency | Variety/Choice | CYOA
---|---|---|---|---|---|---

Surprise Machine

Common Concerns and Challenges:
- Comfort
- Attention
- Reduced Demands
- Hunger
- Inattention
- Difficult Tasks

Potential Solutions:
- Student does not “fill up” by accessing reward otherwise

Factors Influencing the Effectiveness of Function-Based Reinforcement

Overview | Immediacy | Frequency | Size/Amount | Contingency | Variety/Choice | CYOA
---|---|---|---|---|---|---

Common Concerns and Challenges:
- Primary function not established
- Only rewarding at specific times (e.g., food when hungry)
- No variations of similar reinforcers available
- Other challenges?

Potential Solutions:
- Establish a list of similar function-based rewards to cycle through
- Use a preference assessment frequently for student input
- Other solutions?

Overview | Immediacy | Frequency | Size/Amount | Contingency | Variety/Choice | CYOA
---|---|---|---|---|---|---

Variety/Choice

Ideally:
- Reinforcement matches the function of the problem behavior, preferences of the student, and is varied

Overview | Immediacy | Frequency | Size/Amount | Contingency | Variety/Choice | CYOA
---|---|---|---|---|---|---

Variety/Choice

Common Concerns and Challenges:
- Will work for cookies
Motivating Operations

- Comfort
- Attention
- Reduced Demands

Choice

- Student can select what is motivating at-the-moment

Hunger

Inattention

Difficult Tasks

Reinforcement Ideas

Students who are motivated by...

Adult Attention
- Assist adult in the building with task
- Help teacher prepare to present a lesson
- Take a note to the main office

Peer Attention
- Read a story aloud to a younger student or classroom
- Select fun activity for the class from a list of choices
- Be line leader

Escape from non-preferred tasks/activities
- Homework pass to skip assignment or question
- 5 minutes computer time
- Be allowed to write/draw

Tangible Items
- Receive snacks, candy, or drinks
- Select a prize from a prize box
- Receive a raffle ticket to enter for a prize

Overview
- Immediacy
- Frequency
- Size/Amt.
- Contingency
- Variety/Choice
- CYOA

Reinforcement Survey

1. Choose (or write-in) the rewards you want to assess

200+ Ideas

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2. Record choices as you administer

3. Review results by function and reward immediately

Jerome – Variety

How would you rate the variety of Jerome’s reinforcement?
A. Good
B. Fair
C. Weak
D. Undefined/Inadequate

Jerome – Choice

How would you rate the choice of Jerome’s reinforcement?
A. Good
B. Fair
C. Weak
D. Undefined/Inadequate

Factors Influencing the Effectiveness of Function-Based Reinforcement

Identify Top 3 Priorities

Overview | immediacy | frequency | size/amount | contingency | variety/choice | CYOA
--- | --- | --- | --- | --- | --- | ---
Automated Forced-Choice Reinforcement Survey

Overview | immediacy | frequency | size/amount | contingency | variety/choice | CYOA
--- | --- | --- | --- | --- | --- | ---
Automated Forced-Choice Reinforcement Survey

Overview | immediacy | frequency | size/amount | contingency | variety/choice | CYOA
--- | --- | --- | --- | --- | --- | ---
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--- | --- | --- | --- | --- | --- | ---
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Choose Your Own

A B C D Question!

How would you like to continue today?
A. More practice with the reflection tool!
B. Let’s talk about buy-in and resistance

Case Studies: Carter & Alexa

Think about your answers
Pair up with a partner to compare
Share and discuss with another pair

Think about your answers
Pair up with a partner to compare
Share and discuss with another pair

Think about your answers
Pair up with a partner to compare
Share and discuss with another pair

Case Studies: Carter & Alexa
Take with answer “keys”!
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Operationalizing the Problem

Even the best-laid reinforcement plans may fail...

The Plan Itself

- Parameters of reinforcement in the plan were unspecified or inadequate

The Implementation of the Plan

- Parameters of reinforcement in the plan were not implemented with fidelity, which could be due to many factors, such as:
  - Skill deficit
  - Performance deficit
  - Logistical/resource barriers
  - Philosophical barriers and/or resistance

Treatment Integrity

Start here

WHY?

Positive Student Outcomes
- Continue Implementation
- Determine Unknown Issue

Negative Student Outcomes
- Change Intervention
- Promote Treatment Integrity

Reinforcement Systems – Establishing Buy-In

- Builds relationships
- Provides feedback on desired behaviors
- Counters negative traumatic experiences
- “The undermining effect of extrinsic reward on intrinsic motivation remains unproven”
- Builds internal motivation
- Research on ratio of positive-to-corrective statements

Choice in Interventions & Coping Planning

Choice in Interventions
Anderson & Daly (2013)

- Well established antecedent intervention for increasing compliance
- Consistent with partnership/collaboration
- Choice makes task (i.e. implementing BIP) less aversive by letting the consultee select a higher preferred task and avoid less preferred task

Coping Planning

- Identify potential barriers to implementation
- Collaborate to develop strategies when barriers are encountered

Procedure: Provide 2 function-based appropriate interventions and allow consultee to choose which one to implement.

Vote! Which do you hear most often?

A. I shouldn’t have to reinforce or reward a student for doing something that they should be doing anyway.
B. It isn’t fair to the rest of the class to provide special rewards to one student.
C. Why should the child be reinforced for one good behavior when they have been misbehaving all day?
D. “Catching” them being good doesn’t work - it is letting them get away with bad behavior.
E. Reinforcement or punishment just does not work with this child. I have tried everything. There must be something else happening.
I shouldn’t have to reinforce or reward a student for doing something that they should be doing anyway.

- That may be true in principle, but if the child’s behavior is as disruptive as you say it is then it will take a bit of extra effort until it is under control.
- Since the child is acting inappropriately, they may not have learned what they should be doing.
- If we reward the behaviors we want to see, he will catch on to what behaviors he should display.
- Everyone needs some type of reinforcement for their behavior especially when they are not easy to change.
- Most kids respond to social approval/disapproval, which is a type of reinforcement, but for kids who don’t know how to engage in appropriate behaviors or don’t have that kind of history, approval/disapproval may not be enough.
- We don’t plan to provide the rewards forever. Once we see consistent understanding of the appropriate behavior we will fade the rewards.

It isn’t fair to the rest of the class to provide special rewards to one student.

- You could give the reward to the student in private – this would also give them individual positive attention, which would be great.
- You could implement the reward for the whole class.
- Because the student is disruptive to the class, the other students may appreciate an intervention to decrease the problem behavior.
- The other students are likely well aware that this child needs extra help.
- If you thought about this similar to an academic problem, we wouldn’t feel it was unfair to give reading tutoring only to one child, if they were behind in their reading.

Why should the child be reinforced for one good behavior when they have been misbehaving all day?

- This is why we need to make sure the child is reinforced for appropriate behavior more often than for inappropriate behavior.
- Right now, from their perspective, they are being rewarded for the inappropriate behavior – they are getting something out of it (negative attention, delaying or escaping work, etc.)
- If we reinforce the appropriate behavior consistently, they will realize they are only being rewarded when they act appropriately.
- This is why it is important to be specific when we provide praise or rewards so the student is very clear on why they have been reinforced.

Shouldn’t we focus more on punishment instead of “catching” them being good? “Catching” them being good doesn’t work - it is letting them get away with bad behavior.

- If we use punishment we aren’t providing the student with an opportunity to learn appropriate or replacement behaviors.
- When we focus on inappropriate behavior, we often give lots of attention to that problem behavior, which may increase the problem behavior for many students.
- We don’t want the teacher/school to be associated with punishment and negativity. If we reinforce appropriate behavior we can modify behavior while building a more positive relationship between the student and the teacher/school.

Reinforcement or punishment just does not work with this child. I have tried everything. There must be something else happening.

- When someone engages in a behavior, they do it because somehow it is working for them on some level. Perhaps we need to re-think what they are getting out of it (function) and/or whether we have identified rewards that are strong enough to compete with what is happening in the environment.
- We may need to think about wrap around supports or other ways to support the family. However, those supports aren’t likely to be quick fixes. In the meantime, we need to think about what we can do here to help the student be successful.