Using Reinforcement Effectively

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LASARD Project
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Participants will learn to:

- Identify effective reinforcers for their students
- Plan for a system of reinforcement
- Evaluate effectiveness of a reinforcement program
Louisiana Autism Quality Indicators (LAQI)

- I35. Systematic use of reinforcement is evident in the instruction provided.
- I36. Plans for systematic use of reinforcement are evident.
- I52. Class wide student-specific behavior management systems target positive consequences rather than punitive measures.
- I52a. Individualized behavior management systems target positive consequences rather than punitive measures.
- I55. If present, Behavior Intervention Plans include procedures to increase replacement behavior.
- I56. Evidence of identified student preferences exists in lesson plans and IEP.
- I57. The reinforcement students are working for is identified before a student begins his/her work (i.e., students know what they are working for).
Reinforcement: Just the Facts!

- Relationship between a student’s behavior (or response) and the consequence to that response.

\[ A - B - C \]
- Antecedent  
- Behavior  
- Consequence

- The consequence is considered reinforcement *only* if the response increases the likelihood that the behavior will occur in the future.

Neitzel (2009)
Reinforcement can be used to teach new skills or to increase the probability that a behavior will occur again.

Reinforcement for individual students will vary.

Only by measuring student responses/behavior- and seeing an increase- will you know whether or not what you are doing is reinforcement.

Neitzel (2009)
Reinforcement

Positive Reinforcement
*Presentation* after target behavior

Negative Reinforcement
*Removal* after target behavior

Increase in target behavior
Positive Reinforcement

- **Presentation** of a desired consequence following a behavior.

- **INCREASES** the behavior.

Alberto & Troutman (2009)
Steps to Implementing Positive Reinforcement

1. Identify the target skill/behavior
2. Collect baseline data
3. Establish goals
4. Identify reinforcers
5. Select schedule of reinforcement
6. Implement
7. Monitor progress

Adapted from Neitzel (2009)
### Step 1: Identify target behavior

What student behavior would you like to increase?

- Behavior
- Academic
- Social
- Communication
Step 1: Identify target behavior

- Use measurable and observable terms
  - Susan will stay seated during circle time.
  - OR
  - Susan will stay seated in her designated area during circle time.
  - OR
  - Susan will sit with her legs crossed in her designated square during circle time.

Neitzel (2009)
Is this target observable and measureable?

- Bob will greet others.
- Bob will greet a peer in the classroom by waving and saying “hi”.
Step 2: Collect baseline data

- How often is the student currently displaying the behavior?
- Collect data!
  - Frequency
  - Duration
- The only way to know if reinforcement is effective is to know if the behavior is *increasing*

Neitzel (2009)
Step 3: Establish goals and performance criteria

- Establish program goal
  - Bob will greet 2 peers by waving and saying “hi” when he enters the classroom.

- Establish performance criteria (3 is recommended)
  - Based on baseline data, the initial criteria should be easily achieved to establish connection between behavior and reinforcement.
    - Phase 1 – Bob will greet 1 peer by waving when he enters the classroom
    - Phase 2 – Bob will greet 1 peer by waving and saying “hi” when he enters the classroom
    - Phase 3 – Bob will greet 2 peers by waving and saying “hi” when he enters the classroom

Neitzel (2009)
3 Primary Types of Positive Reinforcement

- Tangible Reinforcers
- Social Reinforcers
- Activity Reinforcers

Neitzel (2009); Polloway, Patton, & Serna (2008)
Tangible reinforcement

- Food items
- Age-appropriate toy or game
- Preferred age-appropriate items such as access to an iPod.
Social reinforcement

- Verbal praise
- High 5s
- Spending time with a preferred person
- Hugs
- Smiles
- Hand shakes
Activity Reinforcers

- Selecting topic for group discussion
- Selecting a game or activity for recess
- Tutoring a classmate
- Reading to a friend
- Having extra time in a favorite subject
- Going out first to recess
- Taking attendance
- Handing out papers
- Helping to correct papers
- Being team captain
- Helping put up a bulletin board
- Getting an extra recess
- Reading comics, magazines
- Playing games
- Keeping their own behavioral point records

Polloway, Patton, & Serna (2008)
Why use Preference Assessments?

- Expressive language difficulties
- Increase desirable behavior
- Increase engagement using preferred items and activities
Identifying Reinforcers

Preference assessments are used to identify potential reinforcers for a particular student.

- Reinforcers can only be defined by the student.
- Reinforcers should be as natural as possible.
- Social rewards may not be reinforcing.
- Beware of satiation!

Frost & Bondy (2002)
Informal Preference Assessment

- Observation
  - Free choice selections
- Family/staff interview/checklist
- Student interview/checklist

Vocabulary Selection Worksheet

- Person completing form:
- Date:

Instructions: List up to 5-10 items for each category. Include only those items that your student or child currently enjoys (or dislikes for final category).

- Things your student/child likes to eat
- Things your student/child likes to drink
- Activities your student/child likes (watching television, spinning, sitting in a special chair, squeezes)
- Social games your student/child likes ( Peek-a-boo, chase, tickles, etc.)
- Places your student/child likes to visit
- What your student/child chooses to do during free time
- People your student/child recognizes and enjoys being with
- Items, activities your student/child DOES NOT like

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Reinforcer Checklists/Menus

Jackpot! Create Classroom-Friendly Reinforcer Surveys On-Line

Reinforcer Survey

Directions: Review each of the items below with your student. For each item, mark whether the student finds it to be a preferred reinforcer or reward.

- 😊😊😊 Bradford will read aloud to the class.
- 😊😊😊 Bradford will play academic computer games.
- 😊😊😊 Bradford will choose a story for the teacher to read to the class.
- 😊😊😊 Bradford will help the teacher to prepare or present a lesson.
- 😊😊😊 Bradford will help the library media specialist.

Reinforcer Checklist

<table>
<thead>
<tr>
<th>Student:</th>
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<tbody>
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<table>
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<tr>
<th>Edible Reinforcers</th>
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<tr>
<td>Candy</td>
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<tr>
<td>1. Candy Canes</td>
</tr>
<tr>
<td>2. Candy Kisses</td>
</tr>
<tr>
<td>3. Chocolate</td>
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<tr>
<td>4. Gum</td>
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<td>5. Hard Candy</td>
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<td>6. Jelly Beans</td>
</tr>
<tr>
<td>7. Licorice</td>
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<tr>
<td>8. Lollipops</td>
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<tr>
<td>9. M &amp; Ms</td>
</tr>
<tr>
<td>10. Now &amp; Later</td>
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<table>
<thead>
<tr>
<th>Material Reinforcers</th>
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<tbody>
<tr>
<td>1. Balloons</td>
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<tr>
<td>2. Balls</td>
</tr>
<tr>
<td>3. Beads</td>
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<tr>
<td>4. Bean bags</td>
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<td>5. Blocks</td>
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<tr>
<td>6. Books</td>
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<td>7. Bubbles</td>
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<td>8. Colored chalk</td>
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Systematic Preference Assessments

- Single Stimulus Preference Assessment
- Multiple Stimuli Without Replacement
- Paired Choice Assessment

Neitzel, 2009; Deleon & Iwata, 2004; Alberto & Troutman, 2009

For more information, please see the Autism Training Module: Behavior
• One item is presented at a time.
Multiple Stimulus without Replacement

- All items presented simultaneously
- After an item is chosen, it is removed from the selections
- Remaining items are rearranged
- Repeated until all items have been chosen or student does not interact with remaining items

Deleon & Iwata (1996)
Student Name: Paul
Assessment Date: 10/26/09
Person Assessing: Ms. Robinson

A = Smile and “great job”*
B = Book
C = High five*
D = iPod
E = Connect 4
F = Sunglasses

(*these items were presented to Paul through a photo representation)

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<thead>
<tr>
<th></th>
<th>A</th>
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#1 Preference iPod
#2 Preference High five
#3 Preference Smile and “great job”

Based on Fisher et al., 1992
Step 5: Determine Schedule of Reinforcement

- Continuous schedule
- Intermittent schedule
  - Fixed schedule
  - Variable schedule

Alberto & Troutman (2006); Neitzel (2009)
Continuous Schedule

- Reinforcement occurs after EVERY occurrence of desired behavior
- Develops clear association between behavior and reinforcement
- Best for learning a new skill/behavior

Neitzel (2009); Downing (2010)
Intermittent Schedule

- Reinforcement occurs after some occurrences of the target skill/behavior, but not each and every time.
  - Fixed schedule – Reinforcement delivered after a specific number of occurrences
  - Variable schedule – Reinforcement delivery is based on an average number of occurrences

- Maintain and strengthen desired behaviors

Neitzel (2009); Downing (2010)
Example of Positive Reinforcement

- Teacher: 3x3 is...
- Joe: 9
- Teacher: Right! (Tally check where Joe can see)
- Teacher: 5 x 5 is...
- Joe: 25
- Teacher: Right! (Tally check where Joe can see)
- Teacher: 10 x 10 is...
- Joe: 100
- Teacher: Right! (Tally check where Joe can see)
- Teacher: Joe, you got 3/3 correct (pointing to checks). You can be first in line for recess!
Prevent Satiation!

- Reinforcers become less effective when used too frequently
- Use menu
- Use edible reinforcers sparingly
- Pair primary reinforcers with secondary reinforcers

Neitzel (2009)
Step 6: Implement

- Share positive reinforcement plan with all individuals involved with a student
- Especially at the beginning, consistency is key!

Neitzel (2009)
Step 7: Monitor learner progress

- Collect data to determine if reinforcement is effective.
- If goals being met, reinforcement can be *gradually* reduced to promote generalization and maintenance.
- Move from continuous schedule to intermittent schedule.

Neitzel (2009)
If behavior is not increasing:

- Is the targeted behavior well-defined? Observable and measureable?
- Are there too many reinforcers?
- Are there too few reinforcers?
- Are the reinforcers motivating to the student?
- Are all staff using reinforcement in a consistent manner?
- Is reinforcement occurring at a sufficient level to maintain the behavior?

Neitzel (2009)
Other Applications of Reinforcement

- Use of choice
- Materials of interests
- Token systems
• Maintain a number of potentially reinforcing items/available activities
• Give student choice following any given activity/task/work period

Downing (2010)
• Students with disabilities maintained learned skills more when materials were interest based
• Weave interests into math problems, stories being read, and other content
• Do not replace core curriculum, but add to what is being learned to make it more relevant

Downing (2010)
A student has an intense interest in baseball cards. How could this interest be used in:

- Math
- History
- ELA
- Science

Example adapted from Downing (2010)
Token Economy Systems

- Follow same steps to identify target behavior and reinforcers
- Plan program:
  - Identify tokens
  - Set up a system
- Implement:
  - Clearly describe system to learner
  - Monitor progress

For more information, please see the NPDC on ASD Steps for Implementation: Token Economy Programs
Summary

- Principles of reinforcement
- Steps to implementing positive reinforcement program:
  1. Identify the target skill/behavior
  2. Collect baseline data
  3. Establish goals
  4. Identify reinforcers
  5. Select schedule of reinforcement
  6. Implement
  7. Monitor progress
- Other applications of reinforcement

Adapted from Neitzel (2009)
What step will you take to implement a positive reinforcement program?


Resources

- LASARD Autism Training Modules
  - www.laqitm.org

- National Professional Development Center on ASD
  - http://autismmpdc.fpg.unc.edu/
Register Today!

LASARD Winter Institute
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