Reinforcement Schedules: Why are they important?

SPCD 519

Using Turnitin

- Go to the Turnitin website.  
  - [http://turnitin.com/](http://turnitin.com/)
  - Create an account as a student.
  - Number for the class is 6740858
  - Password for the course is PBS2014

Goals for Tonight’s Class

- Define four schedules of reinforcement and
  - Describe their effects on behavior
  - Explain where in the teaching/learning cycle they might best be used
- Explain factors to consider when thining reinforcement
- Learn ways to make reinforcement “visible” to students to enhance their ability to delay reinforcement

What reinforcement schedule is operating with each of these machines?
Schedules of Reinforcement

- Schedules of reinforcement are the patterns of timing for delivering reinforcement.

- Continuous (CRF) – providing the reinforcer every time behavior occurs; used especially in the acquisition stage of learning (for increasing a behavior) or for stabilizing a behavior.

- Intermittent – reinforcement delivered occasionally or intermittently after behavior occurs; used to maintain a behavior.

<table>
<thead>
<tr>
<th>Schedule Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Fixed Interval (FI)</td>
<td>Reinforcer delivered for the 1st response after a fixed interval of time; produces a low rate of behavior with an on-and-off pattern; response rate increases near end of interval.</td>
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<tr>
<td>Variable Interval (VI)</td>
<td>Reinforcer delivered for the 1st response that occurs after a variable interval of time; produces a steady, low to moderate rate of behavior with no on-and-off pattern.</td>
</tr>
<tr>
<td>Fixed Ratio (FR)</td>
<td>Reinforcer delivered after a certain # of responses; produces high rate of behavior with a pause after reinforcement.</td>
</tr>
<tr>
<td>Variable Ratio (VR)</td>
<td>Reinforcer delivered after an average of x responses; produces a high, steady rate of behavior with no pause after reinforcement. NOTE: to get maximum benefit, must deliver reinforcement systematically.</td>
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### Limited Hold

- Restricts the time the reinforcer is available after the interval, e.g., reinforcement only available for 10 sec after the end of the interval

### Fixed Response -Duration Schedule (FRD)

| Response is reinforced based on continuous performance of a behavior for a specified time; produces sustained periods of behavior with a post-reinforcement pause (longer the time period, the longer the pause) |

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### Variable Response -Duration Schedule (VRD)

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Reducing (thinning) the rate of reinforcement:

- **Thinning** – gradually reducing the frequency (density) of reinforcement provided after the target response to decrease dependence on the reinforcement
  - Do this by gradually increasing the ratio of responses or length of interval
  - Can also explain (use directions) that the ratio/interval length will be changing so students know what is expected.

**Ratio Strain** – occurs when we’ve thinned the reinforcement too quickly
- Ratio between correct responding and reinforcement is too large

**Competing Contingencies** (Concurrent Reinforcement)

- People most often engage in behavior that results in
  - More frequent reinforcement
  - Greater magnitude of reinforcement
  - More immediate reinforcement
  - Less response effort

- Use managed contingencies that are more powerful than the natural contingencies supporting the competing behavior.
  - In other words, the new reinforcer or reinforcement schedule must be perceived to be “better” than the current one, or the individual will not change her behavior.

Ways to make Reinforcement “Visible”
Every time you raise your hand or use your 5 minute break/running card when feeling frustrated you will receive a sticker on one of the black dots. Once you have all of your black dots covered with a sticker you get 10 minutes of drawing or coloring time!

I BELIEVE IN YOU!

Laura Braziel, 2008

Date:
7 Keys = 5 minutes on the piano!

Every time you use your words instead of hitting, or raise your hand when you need to communicate you will receive a sticker on one of the white keys!

Once you have stickers on all 7 keys, you may play the piano for 5 whole minutes!

Laura Braziel, 2008

Making reinforcement obvious…
Final considerations when using reinforcement:

- Use the most natural reinforcer available to get the job done
- Remember the difference between bribery and reinforcement
- Be aware of countercontrol
- Individualize reinforcement

Coming up next week

- **Week 11**: We will discuss using strategies to decrease unwanted behaviors.
- Read Chapter 9 in Alberto & Troutman text
- **Turn in:**
  - Vocabulary #7

**Coming Up on March 30**: Article Review