PREFERENCE ASSESSMENTS

Edited from Stephanie Baker’s Preference Assessment Workshop
B. Assessment

B-1 Conduct preference assessments.
B-2 Assist with individualized assessment procedures (e.g., curriculum-based, developmental, social skills).
B-3 Assist with functional assessment procedures.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Tasks 4-5</th>
<th>Initials</th>
<th>Assessment type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Preference Assessments:</td>
<td>Conduct preference assessments.</td>
<td></td>
<td>With a Client, Role-Play</td>
</tr>
<tr>
<td>5 ABC Data:</td>
<td>Collect ABC data.</td>
<td></td>
<td>With a Client, Role-Play</td>
</tr>
</tbody>
</table>
WHAT IS A REINFORCER?

- According to Copper, Heron and Heward (2007), a reinforcer is:
  - A stimulus change that increases the future frequency of behavior that immediately precedes it.

- Reinforcers are categorized under two types:
  - **Unconditional reinforcer:**
    - Are also known as primary reinforcer, items that requires no learning history such as food, and water.

  - **Conditional reinforcer:**
    - Also known as a learned/secondary reinforcer since prior pairing with one or more unconditional reinforcers were conducted. Examples of these are tokens, or money.
WHY USE A PREFERENCE ASSESSMENT?

- Research clearly identifies preference assessments as a valid and effective way of identifying preferred stimuli for use as reinforcement for students with disabilities.

- It is essential to identify the preferences of students with significant intellectual, developmental, and physical disabilities (SIDPD) so that teachers can use those preferences to reinforce new behaviors (Tullis et al., 2011).
Is a preference assessment the same as a reinforcer assessment?

No

Preference assessments can only determine a rank of the items you test, and the items you select are not guaranteed to be reinforcers.

For something to be a reinforcer it must increase the frequency of a given behavior in the future (e.g., increase correct responding).
TYPES OF PREFERENCE ASSESSMENTS

- Paired Stimulus Preference Assessment
  - (Fisher, Piazza, Bowman, Hagopian, Owens, & Slevin, 1992)
- Single Stimulus Preference Assessment
  - (Pace, Ivancic, Edwards, Iwata, & Page, 1985)
- Multiple Stimulus Without Replacement
  - (DeLeon & Iwata, 1996)
- Multiple Stimulus Without Replacement (MSW)
- Free Operant
- Eye Gaze Preference Assessment
EYE-GAZE PREFERENCE ASSESSMENT

- Represents an adaptation of the paired-stimulus preference assessment.
- It was first specifically designed to identify reinforcers for people with multiple disabilities.
- Mainly those whom lack the physical capabilities to reach out and select an item (Fleming et al., 2010).

- As with the paired-stimulus preference assessment;
  - Up to 16 items can be assessed (but more time consuming)
Data sheet for Eye gaze and paired choice assessment

<table>
<thead>
<tr>
<th>Items</th>
<th>Number of Times Chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Items (circle selection)</th>
<th>Left</th>
<th>Right</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial 1</td>
<td>2</td>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>Trial 2</td>
<td>3</td>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>Trial 3</td>
<td>5</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>Trial 4</td>
<td>1</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>Trial 5</td>
<td>4</td>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>Trial 6</td>
<td>5</td>
<td>4</td>
<td>None</td>
</tr>
<tr>
<td>Trial 7</td>
<td>1</td>
<td>5</td>
<td>None</td>
</tr>
<tr>
<td>Trial 8</td>
<td>1</td>
<td>4</td>
<td>None</td>
</tr>
<tr>
<td>Trial 9</td>
<td>2</td>
<td>5</td>
<td>None</td>
</tr>
<tr>
<td>Trial 10</td>
<td>3</td>
<td>4</td>
<td>None</td>
</tr>
</tbody>
</table>

Rank items from the highest total to the lowest total to obtain a preference hierarchy, where the higher number indicates a higher preference.

1.  
2.  
3.  
4.  
5.  
PAIRED CHOICE ASSESSMENT

- A paired-stimulus preference assessment is appropriate for students who can choose between two items but do not reliably select items from a larger array (Fisher et al., 1992).

- A teacher can assess up to 16 items in a paired-stimulus assessment, though the number of items assessed is generally closer to five. As this number increases, the complexity and duration of the assessment also increases, because each item has to be paired with every other item included in the assessment.

- For example, to assess six items, 15 items, 121 pairs will be presented. A teacher can expect to spend 45 minutes assessing six items and at least 2 hours assessing 16 items. Although the preparation is slightly complicated, the assessment procedures are easy to implement.

- A benefit of this assessment (and all subsequent assessments) is that it provides information on differential responding, which allows a teacher to compare preference in relation to other items included in the assessment, something that is impossible with the single-stimulus assessment.
PAIRED CHOICE VIDEO AND PROCEDURES

http://vkc.mc.vanderbilt.edu/ebip/paired-stimulus/
DeLeon and Iwata (1996) developed the multiple stimulus without replacement (MSWO) assessment in an effort to combine paired-and multiple-stimulus assessments.

The MSWO is appropriate for students who choose from an array of three or more items and can be used to assess up to 16 items.

Although the assessment duration increases as items are added, the total duration is much shorter than the other assessments and will vary based on the number of items and trials presented.

- The average duration is approximately 20 minutes when six items are assessed across five sessions.

To conduct this assessment, the teacher should first list the items to be assessed on the data sheet. The duration of access should also be determined (with consumable items given shorter access and activities longer access). This duration should remain constant.
MSWO

VIDEO AND PROCEDURES

http://vkc.mc.vanderbilt.edu/ebip/multiple-stimulus-without-replacement/
MULTIPLE STIMULUS WITHOUT REPLACEMENT

- Next, the teacher should make sure the student is seated comfortably with a tray or table in front of him to display the items.
- The teacher should place all items in front of the student at the same time, generally in a straight line.
- The teacher should then tell the student to "pick one" and wait 5 seconds. Once the student selects an item (as defined in the paired-stimulus assessment), the array should be removed and the student should be allowed to engage with the item for the predetermined duration.
- On the data sheet, the teacher should record a "1" in the first column next to the item the student chose. Next, the teacher should rearrange the remaining items and present the array again.
- This procedure should be repeated until all items have been selected or the student stops selecting items, and the teacher should record the order of selection for each item in the array (e.g., if item 2 is selected third, write a "3" in the row for item 2 in session 1).
- This is considered one session, and five sessions should be conducted before calculating the preference hierarchy.
- All five sessions of the MSWO need not be conducted in one sitting.
- Although this is a relatively quick assessment, it is important to only conduct the assessment while the student is engaged, attending, and motivated. The teacher should use the procedures described previously to make decisions about how to break up this assessment. To determine the preference hierarchy once five sessions have been completed, the teacher should sum the rankings of each item across the five sessions. In this case, the items with lower totals are considered more preferred than those with higher totals.
Example of data sheet for multiple stimulus with out replacement preference assessment

Figure 4. Multiple Stimulus Without Replacement (MSWO) Preference Assessment Data Sheet

<table>
<thead>
<tr>
<th>Items</th>
<th>Session 1</th>
<th>Session 2</th>
<th>Session 3</th>
<th>Session 4</th>
<th>Session 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rank items from the lowest total to the highest total to obtain a preference hierarchy, where the lower number indicates a higher preference.

1. __________________________
2. __________________________
3. __________________________
4. __________________________
5. __________________________
6. __________________________
MULTIPLE STIMULUS WITH REPLACEMENT (MSW) PREFERENCE ASSESSMENT

- Creates a hierarchy of child’s preferences
- Appropriate for children who are able to select preferred items
- Appropriate for children who engage in challenging behaviors when preferred toys are taken away (unlike MSWO)

Limitations:

- More time-consuming than an MSWO
- Child may always pick a single item (i.e. only shows highly preferred reinforcer)
MULTIPLE STIMULUS WITH REPLACEMENT (MSW)
VIDEO AND PROCEDURES

http://vkc.mc.vanderbilt.edu/ebip/multiple-stimulus-with-replacement/
SINGLE STIMULUS PREFERENCE ASSESSMENTS

- AKA Successive choice assessments
- Provide a child with a single item and record his/her behavioral response to each item
  - Also record duration of engagement with item
- Appropriate for children who are unable to select between highly-preferred and low-preferred items.
  - For example, if you conduct a Paired Stimulus Preference Assessment and noticed that the child always selects items from one side (i.e., side bias) or always attempts to take both presented items, a Single Stimulus Preference Assessment should be used instead.
- Appropriate for children who engage in challenging behavior when preferred toys are taken away, because children are allowed to continue engaging with toys until they choose to stop or give them up.
  - Can get time consuming
SINGLE STIMULUS PREFERENCE ASSESSMENT VIDEO AND PROCEDURES

FREE OPERANT OBSERVATIONS

- Appropriate for all children
- Simple to run
  - Naturalistic or contrived
- Appropriate assessments for children who engage in challenging behavior when preferred toys are taken away.
  - Items are never removed after selection or engagement
- Typically, not conducted with edible items.
- Appropriate for children who are unable to select between highly-preferred and low-preferred items.
  - For example, if you conduct a Paired Stimulus Preference Assessment and noticed that the child always selects items from one side (i.e., side bias), a Free Operant Observation or Single Stimulus Preference Assessment should be conducted instead.
FREE OPERANT OBSERVATIONS VIDEO AND PROCEDURES

http://vkc.mc.vanderbilt.edu/ebip/free-operant/
HOW TO PICK THE RIGHT ASSESSMENT

- Can the student physically select an item?
  - NO: Eye Gaze Assessment
  - YES: Can the student choose between two items?
    - NO: Single Stimulus Assessment
    - YES: Can the student choose between three or more items?
      - NO: Paired Stimulus Assessment
      - YES: Multiple Stimulus Without Replacement Assessment
What type of preference assessment should I conduct with my child?

Do you have an understanding of the types of items the child likes and dislikes?

- Yes
  - Is the child able to consistently select between two items without choosing the same side?
    - Yes
      - Free Operant Observation
    - No
      - Single Stimulus or Free Operant Observation

- No
  - Is the child able to select between three or more items without choosing the same side?
    - Yes
      - Paired Stimulus Preference Assessment
    - No
      - Multiple Stimulus with Replacement (MSW) for toys; Multiple Stimulus without Replacement (MSWO) for edibles
HOW OFTEN SHOULD I CONDUCT PREFERENCE ASSESSMENTS?

- This may vary based on your learner/client:
  - very frequently (e.g., during every instructional session) or less frequently (e.g., once per month)

- You should conduct assessments more often for children whose preferences seem to change regularly or when a child’s behavior shows that a former reinforcer may no longer be preferred (e.g., not engaging with an item when allowed to do so, not consuming a previously-preferred edible).

- In addition to the formal preference assessments described on the following pages, you can also conduct informal assessments even more frequently.
<table>
<thead>
<tr>
<th>Problem/Pitfall</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student grabs all of the assessment items</td>
<td>Arrange items so they're not easily grabbed (in a cupcake tin) or have another person assist</td>
</tr>
<tr>
<td>The student selects in a certain order</td>
<td>Randomize the presentation order or introduce distractions</td>
</tr>
<tr>
<td>The student won’t select any of the options</td>
<td>Possibly use a different selection response, a more basic assessment, or prompt sampling</td>
</tr>
<tr>
<td>The student satiates on the assessment items</td>
<td>Provide smaller samples of the items or break the assessment up over days</td>
</tr>
<tr>
<td>Several items are ranked equally</td>
<td>Items may be equally preferred, you can conduct another assessment to confirm</td>
</tr>
<tr>
<td>The student selects unavailable items/activities</td>
<td>Make an inventory of the available options</td>
</tr>
<tr>
<td>The student demonstrates a side bias</td>
<td>Shift all choices to that side or present vertically</td>
</tr>
<tr>
<td>The student will not select from an array of 6 or more items, but will choose from an array of 3</td>
<td>Decrease the number of items in the assessment</td>
</tr>
<tr>
<td>If a student is not able to sample the item, the assessment may be inaccurate</td>
<td>Allow the student to sample each item when selected</td>
</tr>
<tr>
<td>Behavior doesn’t increase when items are presented contingently</td>
<td>Increase rate of reinforcement</td>
</tr>
<tr>
<td></td>
<td>The reinforcing effects may not be powerful enough if the behavior is particularly challenging. It may be necessary to conduct another assessment with new items</td>
</tr>
</tbody>
</table>
1. Conduct a Multiple Stimulus without Replacement (MSWO) Preference Assessment

2. Watch this recording (toys):
   https://www.youtube.com/watch?v=fEEelCgBkWA&t=11s

3. Use the MSWO form in your training folder to document the child’s preferences for one session; use the provided example data to complete the sum and preference hierarchy

4. Copy and paste into your guided notes or include a copy of your results in your email correspondence with Tricia Clement (tclement@tc-aba.com)
REFERENCES

