

Assessment Name:
Choice-Based Stimulus Preference Assessment
Paired Stimulus Preference Assessment (PS)

Validated Purpose of Assessment Method

Screening	Diagnostic	Progress Monitoring
	X	

Overview:

The success of reinforcement-based interventions is dependent upon an educator's ability to determine reinforcing stimuli that function as powerful rewards/consequences. Class-wide rewards might not be rewarding for all students, especially those who are at an increased risk for maladaptive academic and social behaviors. The application of preferred stimuli can serve as a powerful reward that increase a student's success of adopting appropriate alternative academic and social behaviors. Paired stimulus (PS) preference assessment is a no cost diagnostic tool that generates a ranked order list of preferences for a specific individual. PS assessments allow the student to rank stimuli that are most preferred among an array of options. Various stimuli can be utilized as choices in the preference assessment including: tangibles, opportunities for attention, and preferred activities. Choices can be presented in verbal, pictorial or written formats.

Brief review of validity evidence:

Several studies have reviewed the predictive validity of different preference assessment measures. Research has primarily focused on participants who are developmentally delayed and individuals identified with emotional-behavior disorders. Call et al. (2008) research study investigated the correspondence between most preferred stimuli determined by a PS preference assessment and the amount of effort a child would exhibit on a task by utilizing Kendall's Co-efficient of Concordance. A statistical analysis confirmed a moderate significance (Kendalls's tau-b, .354). Fisher & colleagues (1992) conducted a study with developmentally disabled children comparing results using a PS preference assessment to a stimulus preference procedure utilizing a concurrent operants paradigm. The PS preference assessment had predictive validity in differentiating high preference items with a Kendall's rank co-efficient of concordance of .631 and subsequently PS preference assessment produced higher levels of on-task behavior from the children in comparison to other procedures. Piazza et al. (1996) used a forced choice preference assessment where pairs of stimuli were evaluated by four adult males with a history of destructive behavior to determine criteria of high preference, mid preference, and low preference. All high preference items consistently produced higher rates of responding by the participants. King & Kostewicz (2014) examined seven research studies that utilized choice-based preference assessments in educational settings with children identified with an emotional behavior disorder. All studies confirmed PS preference assessments identified effective reinforcers.

Strengths and Weaknesses:

Paired Stimulus assessments allow the student to make choices of stimuli that are highly preferred among an array of options. Choice can serve as a powerful motivator to behavior change. A variety of stimuli can be used as choices in the preference assessment including: tangibles, opportunities for attention, and preferred activities. By incorporating a variety of stimuli, both students who have maladaptive attention based behavior and escape based behavior can have potential reinforcers. Choices can be customizable to the individual student's need and developmental level and presented in a verbal, pictorial or written format.

The administration of MSWO preference assessments can be time consuming. MSWO preference assessments that contain more items have a lengthier completion time. The most effective practice is regular assessment of student's preferences, because student's preferences can intermittently change. To alleviate confusion, educators need to instruct students on the different reinforcement options and schedules of reinforcement before administration of the MSWO. Most importantly, students need to have the ability to make validated choices. All items and/or activities presented to the student on the preference assessment need to be readily available and cost effective to the school.

Administration Steps:

- 1) Identify items and/or activities that can be evaluated as reinforcement for a student. Brief caregiver and student interviews can provide options for the selection of stimuli.
- 2) Determine the number of stimuli choices to utilize (the length of the assessment increases with more choices offered to the student).
- 3) Determine the representation of the stimuli to the student: tangible, pictorial, or written format.
- 4) Record the stimulus items on the paired stimulus preference data sheet and list paired options.
- 5) Request the student to “pick one” from the paired options listed that is most preferred and record all selections on the data sheet.
- 6) Calculate the percentages of items chosen on each pairing and rank highest to lowest.

Materials:

representation of stimuli items (objects, pictorial representations, or written text)

Paired-Stimuli Preference Assessment Data Sheet

Data coding/sorting/presenting process:

Once the student has made selections for all the paired choice options on the PS data sheet, the practitioner can quickly compute the most preferred items by computing the bottom section of the form. Computations involve taking the number of times a student selected an item, dividing that by the number of times the item was presented in each paired choice, and multiplying that number by 100 to yield a percentage. The stimuli items with the greatest percentages are the most preferred items.

Analysis Guidelines:

A forced choice presentation can better differentiate preferred from non-preferred stimuli over an interview format. Across repeated paired comparisons, the stimuli chosen the most times are more reinforcing to the student.

Additional Resources:

The Tiger & Kliebert (2011) article provides a description and comparison of many preference assessments, details procedural steps, and provides examples of data sheets.

References:

- Call, N. A., Trosclair-Lasserre, N. M., Findley, A. J., Reavis, A. R. and Shillingsburg, M. A. (2012). Correspondence between single versus daily preference assessment outcomes and reinforcer efficacy under progressive-ratio schedules, *Journal of Applied Behavior Analysis*, 45, 763–777.
- Deleon, I. G. & Iwata, B. A. (1996). Evaluation of a multiple-stimulus presentation format for assessing reinforcer preferences. *Journal of Applied Behavior Analysis*, 29, 519-533.
- Fisher, W., Piazza, C. C., Bowman, L. G., Hagopian, L. P., Owens, J. C., & Slevin, I. (1992). A comparison of two approaches for identifying reinforcers for persons with severe and profound disabilities. *Journal of Applied Behavior Analysis*, 25, 491–498.
- King, S. A., & Kostewicz, D. E. (2014). Choice-Based stimulus preference assessment for children with or at-risk for emotional disturbance in educational settings. *Education & Treatment of Children*, 37, 531-558.
- Piazza, C. C., Fisher, W. W., & Hagopian, L. P. (1996). Using a choice assessment to predict reinforcer effectiveness. *Journal of Applied Behavior Analysis*, 29, 1-89.
- Tiger, J. H. & Kliebert, M. L. (2011). Stimulus preference assessment. In J. K. Luiselli (Ed.), *Teaching and behavior support for children and adults with autism spectrum disorder: A practitioner’s guide*, (pp.30-37). New York, NY: Oxford University Press.

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