Evaluation of Generalization When Training Stimulus Preference Assessments

Maria I. Torres Dominguez1, Patrick W. Romani1,2, Andrea L. Boorse1, and Sophia B. Silver1

1 Pediatric Mental Health Institute, Children's Hospital Colorado; 2 School of Medicine, University of Colorado (Anschutz Medical Campus)

METHOD

Participant and Setting
- Participant was a mental health counselor employed by a university-based inpatient unit for children with intellectual and developmental disabilities.
- Participant had no prior experience with applied behavior analysis or preference assessment procedures prior to participation.
- Study took place in a therapy room that was 6.0 m x 6.0 m. Therapy room contained a table and two chairs.

Experimental Design
- The current study took place within a multiple probe across preference assessments design (Kennedy, 2005).

Dependent Variables
- Protocol integrity was defined as steps on the preference assessment protocol correctly implemented. These data were represented as a percentage (frequency of correct implementation divided by frequency of correct plus incorrect implementation multiplied by 100).

Procedures: Main Study

Baseline
- Participant was given preference assessment protocol and 5 min to review protocol.

Protocol restricted from participant. Materials given to participant to implement preference assessment.
- Experimenter responded to the participant’s implementation of the assessment based on confederate protocol.
- After finishing assessment, participant graphed and interpreted data.

Behavioral Skills Training (Parsons, Rollyson, & Reid, 2012)
- Experimenter described and provided written description of each step of the preference assessment protocol. Answered any questions participant had.
- Experimenter modeled each step of the targeted preference assessment and had participant practice until they implemented steps without assistance.

Maintenance
- Same procedures as Baseline.

Procedures: Retrospective Study

- Created Excel spreadsheet listing each step for each preference assessment in separate columns. Entered data on whether each step was implemented correctly or incorrectly for each session.
- We divided data into conditions marked by the specific combination of assessments that had been taught and mastered by the participant.
- Calculated percentage of times each step was implemented correctly to evaluate generalization of responding and potentially interfering conditions.

RESULTS

RESULTS: FIGURE 1

RESULTS: TABLE 1

PROJECT OVERVIEW

- The use of positive reinforcement in the context of behavioral treatment is an important and common practice (Karsten & Carr, 2009).
- To identify positive reinforcers, five stimulus preference assessments are often used (MSWO, DeLeon & Iwata, 1998; Paired Stimulus, Fisher et al., 1992; Single Stimulus, Pace et al., 1985; Competing Stimulus, Piazza et al., 1998; Free Operant, Roane et al., 1998).
- Training all five preference assessment procedures may be inefficient for some settings.

Research Questions:
- How many preference assessments need to be trained before participant shows improvement on untrained preference assessments?
- Does teaching certain preference assessments interfere with acquisition of skills for the other preference assessments?

DISCUSSION

- For Participant, training on two preference assessments (paired stimulus and MSWO assessments) were needed before generalization to three untrained assessments (competing stimulus, single stimulus, and free operant assessments) occurred. BST effectively increased procedural integrity for the paired stimulus and MSWO preference assessments.

Within-session analysis of Participant data showed that while the overall integrity for all five assessments increased, certain skills became more variable.

Following training on the paired stimulus preference assessment:
- Reliable decreases in having the toy available for 30 s occurred during the competing stimulus assessment.
- A second participant demonstrated similar results. Thus, a future, prospective study might evaluate a training package consisting of forced-choice preference assessments with specific emphasis on when to restrict stimuli, move stimuli, and how long to have stimuli available for.
- A limitation of the current investigation was that we conducted this analysis for only two participants out of the five. Future research should recruit additional participants to evaluate the current project’s research questions.

REFERENCES


