Abstract

Preference assessments are essential in applied behavior analysis, but not all highly preferred stimuli function as reinforcers. Identifying effective reinforcers is crucial for behavior change programs, requiring efficient and reliable means of identifying these stimuli. Previous research has compared two formats of a paired-stimulus preference assessment, a single- and double-presentation arrangement, and found that a single-presentation arrangement corresponds with the double-presentation arrangement but requires less time to conduct. Previous research, however, did not include a reinforcer assessment, so the utility of this assessment format is limited. The purpose of this study evaluated the effectiveness of the single-presentation paired-stimulus preference assessment in identifying preferred stimuli that function as reinforcers and compared it with the double-presentation format. The single-presentation format was embedded within the double-presentation assessment and followed by the concurrent operant reinforcer assessment. Results revealed strong correspondence between both formats, with high Spearman rank correlation coefficients (r_s = 1.0, 0.97, 0.89) across participants. Reinforcer assessments confirmed that all highly preferred stimuli identified also functioned as reinforcers. These findings support the use of the single-presentation arrangement, but future research should investigate the social validity of this assessment in regard to clinician acceptability, usage, and implications for client programming.

Key Words or Phrases: Preference Assessment, Reinforcer Identification, Single-Presentation PSPA, Concurrent Operant

Figure 1

Preference Assessment Results for Participant 1-3.

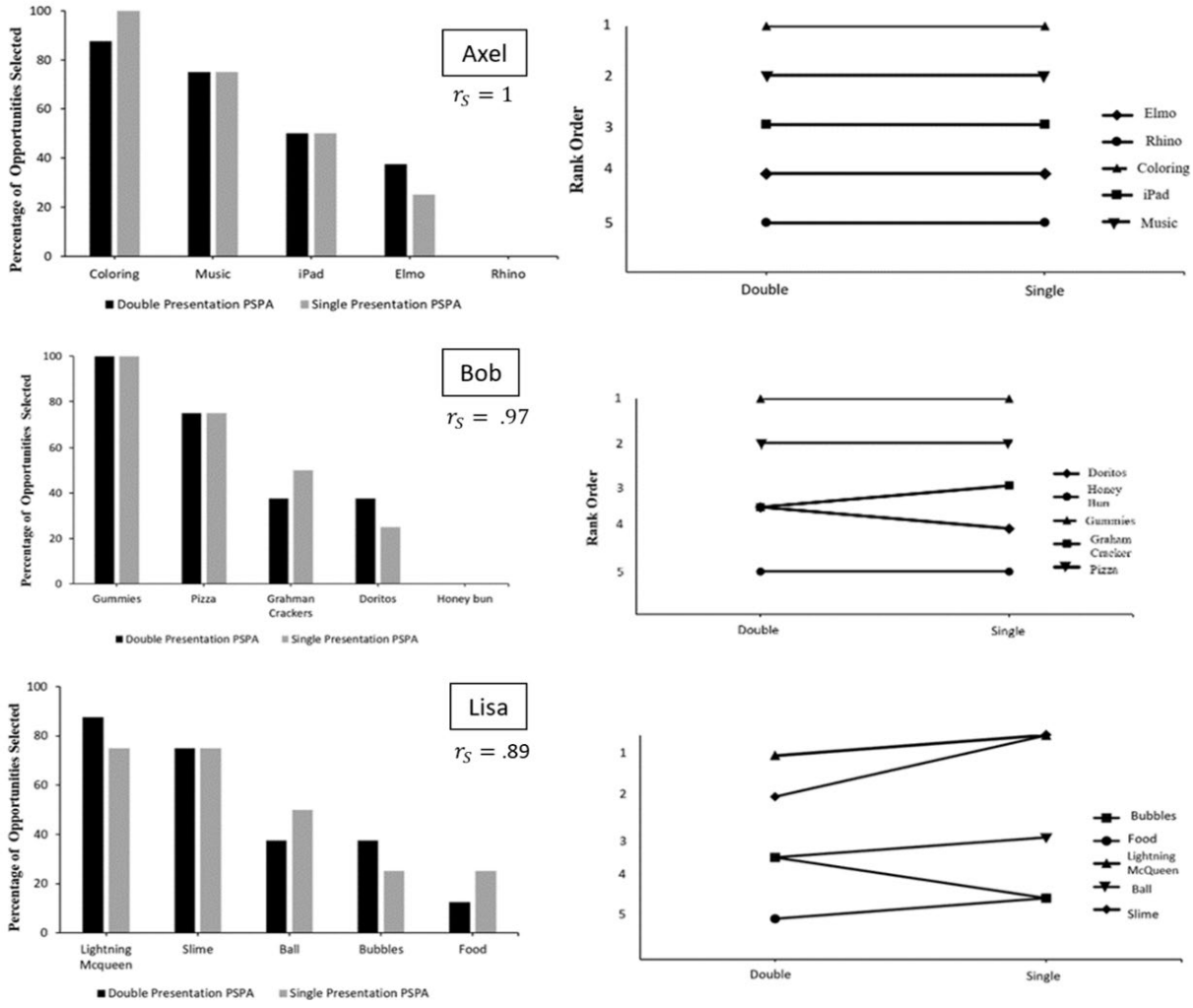
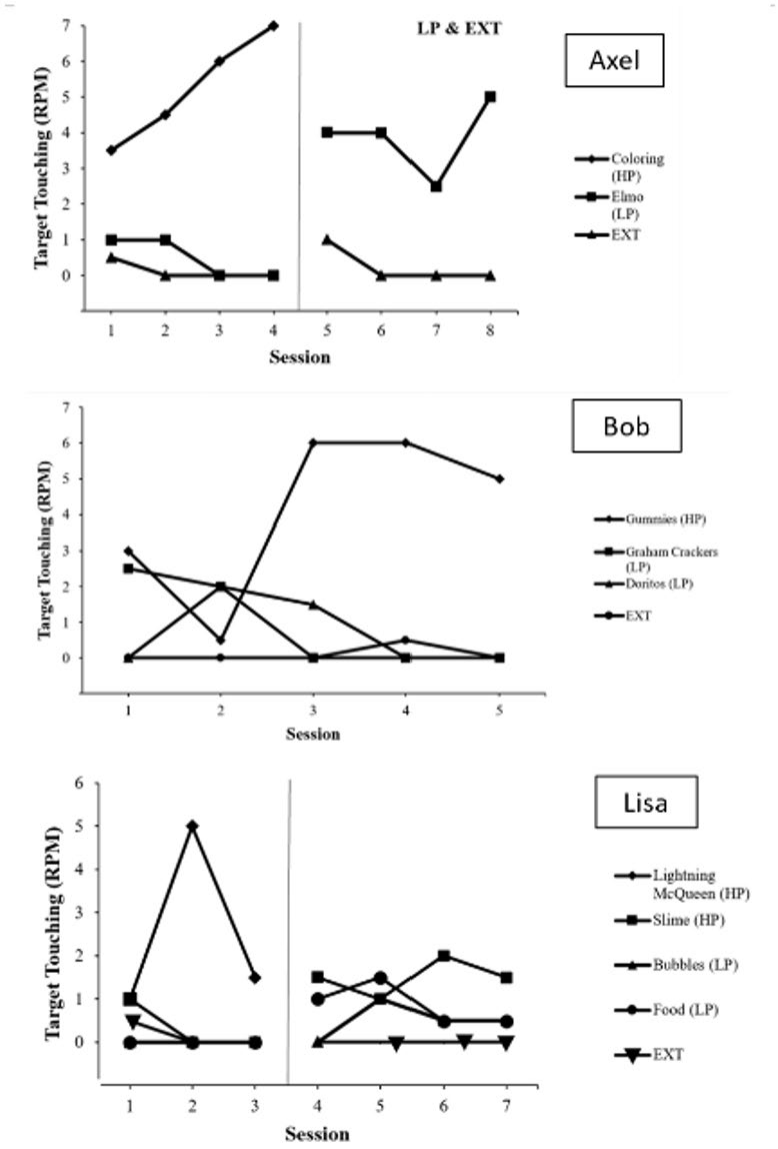


Figure 2

Results of the Concurrent-Operant Reinforcer Assessment for Participant 1-3.



References

Carr, J.E., Nicolson, A.C. and Higbee, T.S. (2000), Evaluation of a brief multiple-stimulus preference assessment in a naturalistic context. *Journal of Applied Behavior Analysis*, 33: 353-357. https://doi-org.libweb.lib.utsa.edu/10.1901/jaba.2000.33-353

Castelluccio, N. T., & Johnson, C. (2019). Using stimulus preference assessments to identify preferred break environments. Journal of Applied Behavior Analysis, 52(3), 772–787. https://doi.org/10.1002/jaba.567

Conine, D.E., Morris, S.L., Kronfli, F.R., Slanzi, C.M., Petronelli, A.K., Kalick, L. and Vollmer, T.R. (2021), Comparing the results of one-session, two-session, and three-session MSWO preference assessments. *Journal of Applied Behavior Analysis*, 54: 700-712. https://doi-org.libweb.lib.utsa.edu/10.1002/jaba.808

Cooper, J., Heron, T., & Heward, W. (2020). Applied Behavior Analysis (3rd ed.). *Upper Saddle River*, N.J: Pearson/Merrill-Prentice Hall

Graff, R. B., & Karsten, A. M. (2012). Assessing preferences of individuals with developmental disabilities: a survey of current practices. *Behavior analysis in practice*, *5*(2), 37–48. https://doi.org/10.1007/BF03391822

MacNaul, H, Nguyen, A, Wilson, S, Cividini-Motta, C, & Mandel, N (2023). Evaluating two iterations of a paired stimulus preference assessment. *Behavioral Interventions*, 39(1), e1977. https://doi-org.libweb.lib.utsa.edu/10.1002/bin.1977

Roscoe, E. M., Iwata, B. A., & Kahng, S. (1999). Relative versus absolute reinforcement effects: Implications for preference assessments. *Journal of Applied Behavior Analysis*, *32*(4). https://doi.org/10.1901/jaba.1999.32-479

Wolfe, K., Kunnavatana, S., & Shoemaker, A. (2018). An investigation of a video-based preference assessment of social interactions. *Behavior Modification*, *42*(5), 729. https://doi.org/10.1177/0145445517731062

Appendix A

Double-presentation Paired Stimulus Preference Assessment Data Sheet/ Treatment integrity/ IOA

Date: _____ **Session #:**_____ **Participant:** _____
Observer: ***(Primary / Reli)***

List stimulus name and # of times selected next to each number under appropriate Paired Stimulus Preference Assessment

Single-presentation Paired Stimulus Preference Assessment:

Item 1: _____ (#____/4) *100 = _____%

Item 2: _____ (#____/4) *100 = _____%

Item 3: _____ (#____/4) *100 = _____%

Item 4: _____ (#____/4) *100 = _____%

Item 5: _____ (#____/4) *100 = _____%

Double-presentation Paired Stimulus Preference Assessment:

Item 1: _____ (#____/8) *100 = _____%

Item 2: _____ (#____/8) *100 = _____%

Item 3: _____ (#____/8) *100 = _____%

Item 4: _____ (#____/8) *100 = _____%

Item 5: _____ (#____/8) *100 = _____%

Experimenter has data sheet	Y	N
Experimenter has writing utensil	Y	N
Experimenter is seated at table or on the floor across from participant	Y	N
Experimenter has the items	Y	N
Experimenter allows child to sample item 1	Y	N
Experimenter allows child to sample item 2	Y	N
Experimenter allows child to sample item 3	Y	N
Experimenter allows child to sample item 4	Y	N
Experimenter allows child to sample item 5	Y	N

_____ / _____ * 100 = _____ PI %
Correct Total (correct + incorrect)

Circle the number that corresponds to the selected stimulus under "placement" to indicate the participant's selection in each trial. If no selection is made after two presentations, cross through both numbers on the trial.

Trial	Placement	Experimenter places stimuli in correct placement?	Vocal instruction (i.e., choose one) presented?	Experimenter allows 30sec for participant to make a selection?	Non selected stimulus removed from array?	Trial represented once if no selection is made?	Trial discontinued if no selection is made on second presentation?	5-10 seconds between trials?	Data recorded after trial?
1	1 2	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
2	3 4	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
3	2 5	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
4	3 1	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
5	4 5	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
6	2 3	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
7	5 1	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
8	4 2	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
9	5 3	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
10	1 4	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
11	2 1	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
12	4 3	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
13	5 2	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
14	1 3	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
15	5 4	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
16	3 2	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
17	1 5	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
18	2 4	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
19	3 5	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N
20	4 1	Y N	Y N	Y N	Y N N/A	Y N N/A	Y N N/A	Y N	Y N

_____ / _____ * 100 = _____ TI %
Agreements Total

Appendix B

Concurrent Operant Reinforcer Assessment Data Sheet PI

Date: _____ **Session #:**_____ **Participant:** _____
Observer: ***(Primary / Reli)***

Step	Y/ N (circle one)	Frequency of Selection (Tally)	Experimenter pauses timer during reinforcement interval		Experimenter delivers reinforcer for 30 s		Delivery of correct consequence on FR1	
			Cor	Incor	Cor	Incor	Cor	Incor
Experimenter has **HP** stimulus	Y/ N	HP:						
Experimenter has **LP** stimulus	Y/ N	LP:						
Experimenter has **EXT** stimulus	Y/ N	EXT:						
Ends session at 2-min excluding reinforcement intervals	Y/ N							

_____ / _____ * 100 = _____ PI %
Correct Total (correct + incorrect)