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# The Effects of Didactic Training & Behavioral Skills Training on Staff Implementation of a Stimulus Preference Assessment with Adults with Disabilities

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THE EFFECTS OF DIDACTIC TRAINING AND BEHAVIORAL SKILLS TRAINING  
ON STAFF IMPLEMENTATION OF A STIMULUS PREFERENCE  
ASSESSMENT WITH ADULTS WITH DISABILITIES

by

Sandra G. Smith

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF SCIENCE

in

Special Education

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UTAH STATE UNIVERSITY  
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2018

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## ABSTRACT

The Effects of Didactic Training and Behavioral Skills Training On Staff Implementation  
of a Stimulus Preference Assessment with Adults with Disabilities

by

Sandra G. Smith, Master of Science

Utah State University, 2018

Major Professor: Tyra Sellers, Ph.D.  
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Direct care staff working in adult day treatment centers typically receive didactic training to learn various behavior change and assessment procedures. Didactic training; however, is not an empirically supported training method for achieving reliable treatment integrity. This study compared the effects of didactic training and behavioral skills training (BST) on the treatment integrity scores of direct care staff implementing a stimulus preference assessment with adults with disabilities in a day treatment center using a multiple baseline design across participants. Direct care staff were trained, via both training methods, to implement a multiple stimulus without replacement assessment with confederates and clients with disabilities, and researchers compared the difference between the percentage of steps completed correctly in each condition.

(84 pages)

## PUBLIC ABSTRACT

The Effects of Didactic Training and Behavioral Skills Training On Staff Implementation  
of a Stimulus Preference Assessment with Adults with Disabilities

Sandra G. Smith

This study assessed the effects of BST and DT on the treatment integrity scores of four direct care staff (DCS) conducting a multiple stimulus without replacement assessment with confederates. A concurrent multiple baseline design showed that BST was effective in achieving mastery level treatment integrity scores for all participants and that these scores generalized to adults with disabilities and remained at mastery levels after a 2-week generalization phase.

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Sandra G. Smith

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## **CHAPTER I**

### **INTRODUCTION**

Direct care staff (DCS) working with individuals with disabilities in human service agencies, such as day treatment centers (DTC), are required to conduct assessments and implement behavior reductive and skill acquisition programs. Reinforcement is a vital component of behavior reductive and skill acquisition programs because it promotes rapid acquisition of skills and strengthens incompatible or more appropriate behavior (Karston & Carr, 2009; Wallace, Iwata, & Hanley, 2006). DCS typically utilize indirect methods of assessment, such as interviews and checklist formats, to identify potential reinforcers (Weeden & Poling, 2011). However, indirect methods are less reliable than direct measures (Cooper, Heron & Heward, 2007). One reason that indirect methods might be less reliable is the fact that they rely on subjective information from people familiar with the individual, or from self-report. One direct method however for identifying potential reinforcers is the stimulus preference assessment (SPA). SPAs are designed to identify preferences for various stimuli such as edibles, tangibles, and activities. Virues-Ortega et al. (2014) identified at least five preference assessment methods, including the multiple stimulus with and without replacement, paired-stimulus, free operant, single-stimulus and the response-restriction preference assessment.

During a multiple-stimulus without replacement (MSWO) preference assessment, the client is systematically exposed to an array of stimuli across trials. The client is told to make a selection from the array, and that selected stimulus is withdrawn from the subsequent presentations. This is repeated until there is one item remaining, or the client

makes no choice. The order of item selection reflects the preference for the item (Deleon & Iwata, 1996). A reinforcer assessment, wherein the stimuli are delivered contingent on a response, may be conducted to confirm stimuli identified as reinforcers function as reinforcement. The results of the MSWO can be used to select stimuli for use in skills acquisition and behavior reductive programming.

Given that the MSWO is a valuable procedure in identifying potential reinforcers, human service agencies may require DCS to implement this procedure as part of their daily responsibilities. DCS typically receive didactic training (DT), or other nonevidenced based training methods, to learn various techniques including behavior change and assessment procedures (Gardener, 1972). DT might include one or more of the following components: (a) a rationale for implementing the intervention, (b) a verbal description of the intervention, (c) a written protocol of the intervention procedures, and (d) a question and answer period. DT may take the form of a lecture, written instruction, or reading assignment, where information is presented to the learner. These methods; however, have been reported to result in poor performance skills (Casey & McWilliam, 2011; Clark et al., 2004). Additionally, results from research indicate that DT is not an effective teaching method for achieving reliable treatment integrity (Parsons et al., 2012). Treatment integrity refers to the extent to which an independent variable is implemented as designed and is concerned with the accuracy with which the independent variable is implemented (McIntyre et al., 2007, p. 659). In practice, DCS staff trained via DT methods often do not implement treatment with fidelity (Parsons et al., 2012). Even if treatment integrity is achieved, it is not guaranteed that desired performance levels will

sustain over time.

Research in the field of behavior analysis; however, has produced and validated empirically supported alternative staff training procedures. One such training model is behavioral skills training (BST). BST is an effective, evidenced-based training method for training staff (Parsons et al., 2012). The components of BST include providing the trainees each of the following components: (a) rationale for intervention, (b) verbal description of the skill, (c) written procedure describing the skill, (d) model/s of the skill by the trainer, (e) rehearsal of the skill, and (f) feedback by the trainer of the staff's performance and (g) repeating steps d through f until mastery is demonstrated (Parsons et al., 2012).

BST has been employed in educational settings, group homes, university-based intervention programs, and clinical settings (Hall, Grunton, Pope & Romero, 2010; Nigro-Bruzzi & Sturmey, 2010; Jerome, Kaplan & Sturmey, 2014). A majority of studies examining the effects of BST on staff treatment integrity do so in settings such as schools with children and adolescent populations (Belisle, Rowsey, & Dixon, 2016; Gianoumis, Seiverling, & Sturmey, 2012; Gilligan, Luiselli, & Pace, 2007; Hall et al., 2010; Miles & Wilder, 2009; Nigro-Bruzzi & Sturmey, 2010; Sarokoff & Sturmey, 2004). Only six studies examined the effects of BST on staff treatment integrity in settings that work with adult populations (Adams, Tallon & Rimmell, 1980; DeRoos & Pinkston, 1997; Jerome et al., 2014; Parsons et al., 2012; Realon, Lewellan, & Wheeler, 1983; Roscoe & Fisher, 2008). Of these, only three studies examined the effects of BST on treatment integrity of staff in adult DTCs (DeRoos & Pinkston, 1997; Parsons et al., 2012; Roscoe & Fisher,

2008). Despite the availability of evidence-based training models like BST, human service agencies like adult DTCs often use the didactic or lecture-only method to train their staff because it appears to be the easiest and most time conservative method (Reid, 2004).

Roscoe and Fisher (2008) compared the effects of two training methods for training staff to implement two types of SPAs (i.e., paired stimulus and MSWO) in a DTC for adults with disabilities. That is, they compared the effects of written instructions only, versus a training package comprised of role-play and feedback, on the treatment integrity of staff implementing SPAs. The researchers demonstrated that the training package was more effective than the written instruction only method in producing high treatment integrity scores of staff implementing an MSWO and paired-stimulus preference assessment. Although the outcomes from this study are promising, one limitation was that the study utilized confederates (staff acting as the client) as the recipients of the SPA instead of utilizing actual clients.

Given the limited number of BST studies in adult DTC's, further research is warranted. Therefore, the purpose of this study is to replicate and extend the research of Roscoe and Fisher (2008) by examining the effects of BST on the treatment integrity of DCS implementing an MSWO with clients with disabilities in a DTC.

## CHAPTER II

### LITERATURE REVIEW

I used various search methods to conduct my literature review. I searched several databases, including Academic Search Premier, Education Source, ERIC, Professional Development, Psychology & Behavioral Sciences, psycINFO and Google Scholar. I searched using the key words “*behavioral skills training*,” “*para professionals*” and “*disabilities*,” producing 4 results. I broadened my search by dropping the search term “*disabilities*,” resulting in 34 identified articles. During a third search of the databases, I included the keywords “*behavioral skills training*” and “*direct care staff*”. I also searched the reference section of articles reviewed in prior classes and reviewed textbooks that had been referenced in these articles. From these combined searches, I identified a total of 55 articles. To further narrow the selection, I decided on the following inclusion criteria: (a) the research question had to examine didactic training versus BST (BST must have included specific components including rehearsal and feedback); and (b) the intended beneficiaries of the training were staff members. After reviewing the remaining studies using my inclusion criteria, fifty articles were excluded. Five articles examining didactic training versus BST with adults met inclusion criteria. One of the articles was unreadable and subsequently excluded; therefore, I reviewed the remaining four articles.

Adams et al. (1980) investigated the effects of lecture versus role-play to train the use of positive reinforcement. Fifteen aides, working in a residential treatment facility for individuals with intellectual disabilities, participated in the study. The researchers did not specify the ages of the aides, the residential population, or the number of residents

involved in the study. The lecture-only training method, and the role-play teaching method, served as the independent variables. The lecture-only training method emphasized the importance of staff-to-resident interactions, as well as taking advantage of opportunities to reinforce appropriate resident behavior. The role-play method included role-play and modeling, in addition to the lecture. Aides were required to reach mastery, which was 80% correct over 10 or more cues and/or reinforcing consequences delivered within a 3 min session.

The ratio of cues to consequences, and the rate of positive consequences, served as the dependent variables. Cues, corrections, and positive statements provided by each aide were observed and recorded by research staff. A cue included an instruction given by the aide such as “George, stand up.” A correction was given if the resident did not follow the cue. A positive statement included a phrase given by the aide to the resident such as “Good, George, you stood up.” A ratio for both dependent variables was calculated due to the varying number of observations within a session.

Researchers used a multiple-baseline design across groups of aides. Fifteen aides were divided into four groups. Two groups (group 1 and 2) received the lecture only training method, whereas the other groups (group 3 and 4) received the lecture and role-play method. Prior to training, each group was given a behavior modification test to assess knowledge. During baseline (no lecture or role-play), each of the four groups was observed for a period of about two weeks and data were collected on the dependent variables. Aides were observed twice daily for 3 min in each, across randomly selected times of the day. Groups 1 and 2 then received the lecture only training. Groups 3 and 4

received the lecture and role-play training. Researchers observed and recorded cues, corrections and positive statements.

The results of this study suggested that lecture and role-play training was superior to the lecture-only method in the training of aides to deliver reinforcing consequences after every cue given. The ratio between the number of cues and reinforcing consequences was calculated. The mean ratio for the lecture-only groups in baseline was .28 and .27 and increased to .48 and .40 after training. The mean ratio for the lecture and role-play groups in baseline was .21 and .23 and increased to .46 and .83 after training. These data suggest that lecture and role-play training as a package was more effective over the lecture-only training. Groups who received the lecture and role-play training provided reinforcing statements above that of the lecture-only groups. These results are promising for human service agencies because it indicates a time conservative and effective method for training staff.

In a more recent study by Jerome et al. (2014), researchers compared the effectiveness of verbal instructions, in-service training alone, and in-service training with feedback, on the percentage of accurate recording of DSC working in an adult residential care facility. Three DCS between the ages of 22 and 38 years, with experience working in the disabilities field that ranged between 4 months and 13 years, participated in the study. Two individuals with profound intellectual disabilities, ages 32 and 53 years, also participated in the study. The study was conducted in various rooms of the care facility that served 13 adults with intellectual disabilities.

The in-service alone, and in-service with feedback training, served as the

independent variables. Verbal instruction alone was provided in baseline. During verbal instruction, the researcher provided an oral description of the task to the DCS along with a data sheet for recording. During the in-service alone training method, oral instructions plus a data sheet were provided, along with an operation definition of the target behavior, and the rationale and impact of accurate recording. During in-service with feedback, all components of the in-service alone method were included, and DCS's were given feedback after several trials of data recording in one location of the group home. Feedback was given until the DCS had accurately achieved the mastery criteria. Mastery was achieved when the DCC accurately recorded data during 80% of the session, for three consecutive sessions.

The percentage of accurate data recording served as the dependent variable. DCS's were asked to place a check mark at 1 min increments for each instance of the target behavior observed over a 15 min session and an X mark during each 1 min increment when the target behavior was not observed. Percentages from these data were calculated and compared with the data recording of the researcher. Researchers used point-by-point agreement to compare data between DCS and research staff, and calculated the occurrence and non-occurrence agreement.

The researchers used a multiple-baseline design across participants to evaluate the effects of the intervention. The study was conducted in a randomized fashion with DCS's and research staff collecting data between two 45 min periods in the evening in various locations within the group home. During baseline, DCS's collected data based on the oral instructions provided to them. Baseline continued until stable responding was observed.

The in-service only training was provided to DCS's in the in-service only phase and lasted between five to seven sessions. DCS were then provided the in-service and feedback training. The in-service and feedback phase lasted between five and 15 sessions and occurred in several locations of the home.

The results of that study showed that the treatment package of in-service and feedback was superior to the in-service only method, and far superior to the verbal instruction only method. In the baseline or instruction-only phase, participants scored between 52% and 77% accurate data collection. During the in-service phase, participants scored between 85% and 89% with one participant scoring 98%. During the in-service and feedback phase participants scored between 94% and 100%. The findings are important because many agencies do not have the time or resources to train staff to take data in multiple locations within one facility. The results indicated that training in one location might be sufficient to generalize accurate recording to other locations within the facility. This is meaningful to human service agencies, such as DTC that are also comprised of various areas and classrooms. Training all staff in multiple locations is likely cost prohibitive. Future researchers could examine results of a similar study conducted in other settings such as a DTC.

Parsons et al. (2012) presented a case study examining BST in a DTC. They examined the effects of BST on the treatment integrity scores of eight educators implementing behavior analytic procedures in a training program for adults with severe disabilities. The study was conducted in classrooms where adult participants received instructional services and engaged in paid work. Seven special education teachers and

one aide, between the ages of 30 to 53 years, participated in the study.

The BST method identified in the introduction section by Parson et al. (2012) served as the independent variable. The percentage correct implementation of two behavior analytic procedures served as the dependent variable. The first skill procedure involved a five component most-to-least (MTL) assistive prompting strategy. In order to receive a correct score, the DCS had to perform all components correctly. If the DCS omitted or incorrectly performed any component, it was scored as incorrect. At the completion of the five components, scores were averaged to receive a percentage correct score. The second procedure involved manually signing 35 signs. A sign was scored as correct if the participant adhered to the performance criteria which included: (a) movement of fingers and hands, (b) shape of fingers and hand, and (c) location of fingers and hands in respect to the body. A sign was scored as incorrect if the participant failed to execute any part of the performance criteria, and/or if they stated that they did not know how to perform the sign. The percentage score was calculated by dividing the number of correctly performed signs by 35 and then multiplying by 100.

Researchers used a multiple baseline design across skill sets to evaluate effects for this study. During baseline for the MTL prompting procedure, researchers instructed the participants to teach three skills using the MTL procedure to confederates (experimenters who played the part of students). Feedback was not provided during baseline.

Researchers scored correct and incorrect responses. For the signing skill set, the researchers spoke one word from a list of 35 words and the participant was instructed to sign it. This was repeated for the remaining 34 words. Correct and incorrect responses

were scored. After stable responding in baseline was observed, BST was provided to each DCS for both skill sets. Post-training data collection on participant implementation of both skill sets began one week following the last BST session. During the post-training phase, participants were observed implementing both skill sets under conditions similar to baseline. A follow-up phase, titled 'on the job assessments,' followed the post-training phase, for the purpose of evaluating whether the DCS accurately performed the skills acquired through BST in their natural teaching environments. An anonymous acceptability survey was also given at the end of the study to all DCC's.

The results of this study demonstrated that the BST method for training staff was effective at increasing the percentage correct for both skill sets taught. Percentage of correct responding averaged between 90% and 100% during the post training and on-the job phases. These results support the effectiveness of the BST model for training different skills. Results from the acceptability survey indicated that participants found the training acceptable and would recommend the training to their colleagues. Due to the case demonstration nature of the study, further studies are warranted to replicate the results.

Given that my study examined the effects of BST on staff performance of SPAs in a DTC, the following study was chosen for review, due to relevance. Roscoe and Fisher (2008) examined the effects of role-play and feedback on the percentage of accurate recording by staff implementing SPAs in a DTC. Eight behavioral technicians, all with bachelor's degrees and previous experience working with people with disabilities, participated in this study. The study was conducted in a classroom of a DTC for adults with disabilities. While conducting SPAs was an expectation of the job duties of these

behavior technicians, none had received formal training in conducting SPAs.

The training, which included role-play and feedback, served as the independent variable. Initially researchers video recorded baseline sessions. These recordings were used to provide feedback to the behavior technicians to identify the components that were performed correctly and those that were not. The researcher then role-played various client responses and provided feedback to participant responses. Training sessions lasted between 15 and 20 min. Percentage of correct steps in conducting a paired-stimulus (PS) and multiple stimulus without replacement (MSWO) preference assessment served as the dependent variable. Implementation steps included two correct antecedent responses, and between one and three correct consequent responses for each SPA.

Researchers used a multi-element design, wherein participants conducted paired-stimulus (PS) preference assessments in one condition, and MSWOs in another condition, across baseline and intervention phases. During baseline, all participants were instructed to develop a list of the client's least to most preferred items. Participants each received written instructions, and a data sheet on which to collect data. During the second phase, four participants were trained to conduct the MSWO through role-play and feedback training, components of BST, and received no training on running a PS assessment. The other four participants were trained to conduct a PS assessment through role-play and feedback, and received no training to run the MSWO assessment. During the third phase, all participants were trained to conduct both PS and MSWO assessments through role-play and feedback. In baseline, responding for both groups was between 44% to 47% percent correct, across both skill sets. During phase 2, participants who received the role-

play and feedback training for conducting an MSWO, performed at a mean of 96%, whereas those who did not receive the role-play and feedback training showed responding similar to that obtained in baseline. The same was true for the other group who received training to conduct the PS assessment. In the third phase, after all participants received role-play and feedback training for implementing an MSWO and PS assessment, performance increased to 95% and 96% respectively.

This study is important because it shows that training methods utilizing role-play and feedback, components of BST, can be effective in as little as one training session. The researchers, however, used confederate staff to act as clients when running the SPA, limiting external validity because treatment was not examined with individuals with disabilities. Utilizing individuals with disabilities as the recipients of the SPAs could have strengthened this research study by demonstrating generality of results to the intended population.

There were only six studies examining training procedures for staff working with adults with disabilities. More importantly, there are even fewer studies that have been conducted in adult settings such as DTC's. More research is necessary investigating the use of BST in DTC's to determine whether it produces expedient, reliable, and generalizable behavior change in this environment.

The purpose of this study was to compare the effects of DT versus BST to teach DCS in a DTC to administer an MSWO preference assessment. Given six DCS, this study addressed the following questions: (a) what effect will the BST model have on treatment integrity scores of DCS implementing a MSWO preference assessment as

measured by the percentage of correct steps implemented, (b) what effect will BST have on the generalization and maintenance of treatment integrity scores of DCS implementing an MSWO assessment with adults with disabilities, (c) how does BST compare to DT in regards to amount of time in training, and (d) to what extent will the DCS favor BST over the traditional DT they have been accustomed to, as measured by a social validity questionnaire?

## **CHAPTER III**

### **METHODS**

#### **Participants**

We recruited four participants, between the ages of 18 and 60 years, from a pool of DCS serving adults with disabilities. Lulu was a 21-year-old Caucasian female with 22 months of experience working with people with disabilities and had some college experience. Yolanda was a 24-year-old Caucasian female with 9 months' experience working with people with disabilities and a degree in family consumer and human development. Gina was a 25-year-old Caucasian female with 22 months' experience working with people with disabilities and some college experience. Crystal was a 44-year-old Caucasian female with 26 months' experience working with people with disabilities and some college experience.

We also recruited 12 clients with developmental disabilities receiving day treatment services, between the ages of 20 and 80 years, from eight classes within the DTC. Consent to participate was obtained from each client and/or their guardian. Clients participated in all phases of this study, as participants in the preference assessment. While these individuals participated in the study, no identifying information or performance data were collected.

#### **Participant Selection**

Direct care staff were recruited from department B of the DTC. We disseminated an informational flyer containing information about the study amongst staff of

department B. A waiver was obtained to conduct screening procedures prior to consent, and direct care staff meeting inclusion criteria were then invited to participate in the study. We informed the DCS staff that participation was completely voluntary, and following consent, provided contact information for the faculty researcher, Utah State University (USU) institutional review board and the Department of Health (DOH) institutional review board, should they choose to opt out of the study at any point.

### **Participant Inclusion/Exclusion Procedures**

All prospective participants took a pretest (appendix A) to determine their eligibility for the study. This pretest identified whether the participant had any prior knowledge of preference assessments, specifically their familiarity with conducting an MSWO preference assessment. In addition to a knowledge check, participants were asked to conduct an MSWO and data were collected to measure treatment integrity. Treatment integrity scores at or above 50% excluded the participant from the study. All participants scored well below 50% of correct responses and thus met inclusion criteria.

Client participants were screened to ensure they could attend to items and staff, scan an array of items, and not engage in harmful problem behavior during the MSWO. Two client participants were excluded from the study because they could not scan and attend to the items placed in front of them. They were referred for a variation of the preference assessment.

### **Setting**

All sessions were conducted at a local DTC serving three counties in the

surrounding area. The DTC provides habilitative services for children and adults with varying degrees of intellectual disabilities receiving services in the facility and in the clients' homes. This study focused on training DCS staff working at the DTC to conduct an MSWO preference assessment. Research staff conducted DT, BST and all MSWO test sessions in one of three classrooms (5m x 4m) within the DTC. The classroom contained between 2 to 3 tables and 5 to 12 chairs.

### **Materials**

This study utilized the following materials: (a) pretest for participant selection (Appendix A), (b) MSWO data sheet (Appendix B), (c) MSWO treatment integrity (TI) data sheet (Appendix C), (d) written instructions to be handed out during DT and BST training sessions (Appendix D), (e) DT task analysis (Appendix E), (f) DT session treatment integrity data sheet (Appendix F), (g) BST task analysis (Appendix G), (h) BST session treatment integrity data sheet (Appendix H), (i) scripts to be used in DT and BST training sessions (Appendix I), (j) training log (Appendix J), (k) social validity questionnaire, (l) MSWO test session TI data sheet, (m) timers to be used within MSWO preference assessments, and to record DT and BST sessions, (n) chairs for participants and secondary participants, (o) table (2m x 1m), and (p) items/objects to be used in the MSWO preference assessments.

### **Dependent Variable and Response Measurement**

#### **Percentage of Correct Responses**

The dependent variable is the percentage of correct responses while conducting

the MSWO preference assessment. The task analysis checklist for the MSWO (Appendix D), was based on procedures by Carr, Nicolson, and Higbee (2000) and consists of up to 33 possible correct responses per trial. An MSWO trial, however, may have required less than 33 steps, dependent on client response. For example, if the client did not reach for a second item while manipulating the first, there was no need for the participant to block such a response. Research staff scored the number of steps completed correctly out of the total possible relevant responses and multiplied that number by 100 to yield a percentage correct score (e.g.,  $76/89 \times 100 = 85\%$ ). A response was considered correct if the participant completed the response in the correct order and in the appropriate amount of time, as identified by the MSWO Treatment integrity checklist (Appendix C). Research staff collected MSWO TI data across all phases of the study.

### **Social Validity Questionnaire**

Social validity data were gathered using a questionnaire provided to each participant at the end of the post BST phase (Appendix K). Participants were asked to submit the questionnaire anonymously to the student researcher. Ten questions were posed with a 5-point rating scale response option, with “1” representing strongly agree, “3” representing the neutral point and “5” representing strongly disagree. An eleventh “yes” or “no” question was posed that asked the participant to choose his or her preferred training method.

### **Training Session Duration**

The duration of each component of DT and BST sessions was measured. For

example, during DT sessions, a stop watch was started at the beginning and stopped at the completion of each of the following components: (a) introduction of intervention (b) rationale for the intervention, (c) handing out the written protocol and providing a verbal description of the intervention and (d) completing a question and answer period. Duration data for BST sessions were collected in the same fashion. The stopwatch “start and stop” instructions are provided in Appendices F and H.

Total duration was calculated by adding the duration of all session components. An average of all sessions was then taken to obtain an average duration. BST session duration was calculated in the same fashion. To calculate the difference in duration between DT and BST sessions, the first four components were omitted from the total session duration of the BST sessions.

Total session duration data were collected for 100% of all DT sessions, however researchers only collected component duration data (as described above) for 75% of these sessions. Total session duration data, including component duration data, were collected for 100% of all BST sessions

### **Interobserver Agreement**

A trained research assistant collected data on the dependent variable (percentage of correct responses) for an average of 77.7% of sessions for all participants across all phases for the purposes of calculating interobserver agreement (IOA). IOA was calculated by using the point-by-point method (Carr et al., 2000), which is determined by dividing agreements by agreements plus disagreements and multiplying that score by

100%. BST was utilized to train all research staff to mastery criteria, to ensure accurate data collection. Training included scripted role-plays of MSWO preference assessments that were observed and scored by research staff. Each research staff was required to obtain scores at or above 80% upon completion of the training. The primary researcher planned to provide booster sessions for research assistants should their IOA scores fall below 80% during the implementation of the study; however, this was not required as all IOA scores came in at 80% or above. Mean IOA percentages were 95.2% for Lulu, 97.1% for Yolanda, 94.4% for Gina and 94.3% for Crystal.

IOA was also calculated from data collected on the duration of training sessions. The primary researcher timed the duration of all didactic and BST sessions as indicated above. A research assistant also collected component duration data by timing 75% of didactic training sessions and 100% of BST sessions. Since duration data results between the primary researcher and the research assistant were less than 2 min difference, the duration data by the primary researcher was reported and graphed.

### **Treatment Integrity**

Researchers collected data for the purpose of calculating treatment integrity scores for DT and BST sessions to ensure training was delivered per the training protocol for all participants. A task analysis was developed for each training method (refer to Appendices F, H, and L) to ensure adherence. Data for treatment integrity were collected for 75% of DT sessions and 100% of BST sessions. Treatment integrity scores were calculated by dividing the number of steps completed correctly by the total number of

steps possible and multiplying that number by 100. Mean treatment integrity scores across all participants were 100% for DT sessions and 98.2% for BST sessions.

Researchers also collected data for TI across 63.6 % of baseline test sessions, 75% of post DT test sessions, 68.7% of post BST test sessions and 100% of maintenance test sessions across all participants. Mean treatment integrity scores across all sessions for all participants was 99.8%

### **Independent Variable**

#### **Didactic Training Package**

The DT resembled the typical training procedure already provided to staff at the DTC. DT consisted of the following steps: (a) providing a rationale for implementing the intervention, (b) a verbal description of the intervention, (c) a written protocol of the intervention procedures, and (d) a question and answer period.

#### **Behavioral Skills Training Package**

The BST training package consisted of procedures described by Parsons et al. (2012), including: (a) provide the rationale for the use of an MSWO preference assessment, (b) providing a detailed written description of the MSWO preference assessment, (c) providing a vocal description of the MSWO preference assessment (d) providing a model of how to conduct the MSWO, (e) requiring direct care staff to rehearse the skill, (f) providing immediate feedback, and (g) repeating steps d through f till mastery. Mastery was achieved when DCS could accurately complete 90% of all steps identified on the task analysis across three consecutive sessions.

## **Experimental Design**

A concurrent multiple-baseline design (Cooper, Heron & Heward, 2007) across four participants was used to evaluate the effects of BST on the treatment integrity scores of direct care staff implementing an MSWO as measured by the percentage of correct responses. This experimental design included the following phases (a) baseline, (b) post DT, (c) post BST, and (d) maintenance. All four participants participated in all phases of the study.

## **Procedures**

### **Baseline**

During baseline, participants were instructed to conduct an MSWO assessment with confederates (staff acting as clients) to the best of their ability. A script was used to deliver the same instructions to all participants across all test sessions. Research staff collected treatment integrity data to ensure sessions were conducted the same across all participants. Confederates used one of four scripts to direct them how to respond throughout all baseline sessions. These scripts were randomized by using the “choose for me” application, prior to each MSWO test session.

Participants conducted MSWOs until a stable baseline was established for each participant.

A single probe was conducted wherein the participants were asked to implement an MSWO with client participants. This was done by asking participants to conduct an MSWO preference assessment with a client with whom they had no prior working

history. Prior to this probe the agency's behavior specialists completed a preference assessment inventory conducted for each client participant. Items used in the MSWO were selected from this preference assessment inventory and placed in a bin for participants to use when conducting the MSWO. Participants were provided with the MSWO data sheet (Appendix B) to record their results. Participants did not receive any other information about how to conduct an MSWO preference assessment but were informed to "try their best." When participants asked for clarification, the primary researcher simply responded to the participant to "try their best." Data were collected for the purpose of calculating IOA scores across 77.2% of sessions in this phase.

### **Didactic Training Session**

Participants received DT on the implementation of the MSWO preference assessment. During training, participants were introduced to the MSWO preference assessment, were provided with a rationale for the assessment, and were given verbal and written instructions to implement the procedure. A question and answer period concluded the training. The primary researcher used a script to ensure training was delivered as planned. Participants signed a training log as they typically did for other trainings. Research assistants collected data to evaluate whether the primary researcher consistently included all components of the training across participants and converted those data to TI scores. The primary researcher and research assistants also timed the individual components of the training and recorded the training duration in minutes and seconds on the training log and on the TI data sheet. Participants were not permitted to have access to the written instructions outside of the training session. Following the completion of the

DT, participants experienced MSWO test sessions, as described below.

### **Multiple-Stimulus Without Replacement Test Session (Post Didactic Training Phase)**

Test sessions occurred the first working day following the DT session. One MSWO test session consisted of three trials. Participants were asked to conduct an MSWO preference assessment to the best of their ability with confederates (staff acting as the client). Each participant was required to engage in a minimum of three test sessions (one test session per day), or until stable responding was achieved. Confederates used one of four scripts to simulate a variety of client responses. One script, for example, demonstrated a typical MSWO preference assessment wherein the client chose only one item within the prescribed amount of time. A second script demonstrated a client making multiple choices at once, a third script demonstrated a client choosing items outside of the prescribed amount of time and a fourth script demonstrates a client not choosing any item from the array. These scripts were randomized by using the “choose for me” application, prior to each MSWO test session.

A single test session probe with a client participant was conducted by asking participants to conduct an MSWO preference assessment for a client with whom they had no prior working history. Participants did not receive any additional training prior to implementing the MSWO preference assessment during the test portion of this phase. Items previously identified in the preference assessment inventory were placed in a bin for participants to use when conducting the MSWO. This phase continued until a stable baseline was established across all script variants with confederates as the recipients of

the MSWO preference assessment, for each participant. Data for calculating IOA were collected for 62.5% of sessions in this phase.

### **Behavioral Skills Training Session**

Staff training on implementing the MSWO preference assessment via BST was conducted within one to two days following the last test session of the DT phase. Participants received BST, as described above, on the implementation of the MSWO preference assessment. The primary researcher used a script to ensure all components of the training were delivered. Confederates were used for the modeling and rehearsal components of BST. Participants were expected to achieve at least 90% mastery across three consecutive test sessions during training prior to entering the MSWO test sessions. IOA was calculated for data collected for the test sessions within training. Training sessions occurred over one to two days until mastery was achieved. Participants signed a training log as they typically did for other trainings. Research staff used a treatment integrity-training checklist to ensure all components of the training were provided consistently across all participants. The primary researcher and research assistants timed each component of the training and recorded the duration data in min and sec on the training log. Participants were not permitted to have access to the written instructions outside of the training session. Following completion of BST training, participants engaged in MSWO test sessions, as described below.

### **Multiple-Stimulus Without Replacement Test Sessions (Post Behavioral Skills Training Phase)**

Test sessions were conducted the first working day following the BST session.

One MSWO test session consisted of three trials. Participants were required to conduct a minimum of three test sessions over three days with confederates (staff acting as the client) or until stable responding was achieved.

A single test probe session was conducted with a client participant by asking participants to conduct an MSWO preference assessment for a client with whom they had no prior working history.

Participants did receive any additional training prior to implementing the MSWO preference assessment during the test portion of this phase. Items previously identified in the preference assessment inventory were placed in a bin for participants to use when conducting the MSWO. Confederates used one of four scripts to simulate a variety of client responses. One script, for example, demonstrated a typical MSWO preference assessment where in the client chooses only one item within the prescribed amount of time. A second script demonstrated a client making multiple choices at once, a third script demonstrated a client choosing items outside of the prescribed amount of time and a fourth script demonstrated a client not choosing any item from the array. These scripts were randomized by using the “choose for me” application, prior to each MSWO test session.

A booster session was not required during this phase given that all participants scored 90% or higher in their treatment integrity scores. This phase continued until a stable baseline was established across all script variants for confederates and clients, for each participant. Data for calculating IOA were collected for 68.7% of sessions in this phase.

**Maintenance**

The maintenance phase occurred no sooner than 2 weeks following the last MSWO test session of the BST phase and included procedures identical to those described in the MSWO test sessions of the BST phase. Participants were not provided with any further training prior to conducting the MSWO preference assessment. Lulu, Yolanda and Gina conducted MSWO test sessions with one confederate and one client participant. The fourth participant, Crystal, initially conducted MSWO test sessions with one confederate and one client. Crystal however did not meet the mastery criteria of 90% with the client. During the client probe, the client participant responded in a manner not included in our training scripts. The client attempted to return the selected item to Crystal immediately after making a selection. Crystal removed the item from the client before the allotted amount of time. Crystal was provided with advanced BST to know how to respond to the client's varied responding. The advanced BST session only included modeling, rehearsal and feedback to teach Crystal to ignore the client's attempts to return the item prior to the allotted 10 s time frame. Crystal then conducted an additional MSWO test session with the same client participant and achieved mastery levels.

**Social Validity Measures**

Participants completed an anonymous 5-point rating survey at the end of the BST phase. Participants placed the completed anonymous form in a folder in the front office of the DTC to ensure anonymity.

## CHAPTER IV

### RESULTS

During baseline, all participants scored between 0-10% correct when asked to conduct an MSWO preference assessment with a confederate, and between 0-3.84% in the single client probe. Figure 1 depicts the results of the MSWO test sessions for all four participants. Lulu scored 2.59%, 3.84% and 0% correct responses across three test sessions with confederates in baseline, and 0% correct responses in the single client probe. Yolanda scored 9.09%, 3.84%, 3.7% and 1.2% across four test sessions with confederates, and 3.84% correct responses in the single client probe. Gina scored 1.28%, 1.28%, 0%, 1.28% and 1.26% across five test sessions with confederates, and 1.28% correct responses in the single client probe. Crystal scored 2.59%, 0%, 0%, 0%, 0%, 0% correct responses across six test sessions with confederates, and 0% correct responses in the single client probe.

During the DT session, participants did not receive testing to assess mastery. Testing to assess treatment integrity scores is not typically practiced in DT (DeRoos & Pinkston, 1997). Participants were asked if they had questions prior to ending the training session. Each participant asked between one and two brief questions.

In the post-didactic training phase (DT), the treatment integrity scores of the participants rose to moderate levels for two of the four participants. Lulu scored 67%, 75.6% and 65% correct responses across three test sessions with confederates, and 62.8% correct responses in the single client probe of this phase. Yolanda scored 48.7%, 50%, and 46% correct responses across three test sessions with confederates, and 43.5% correct

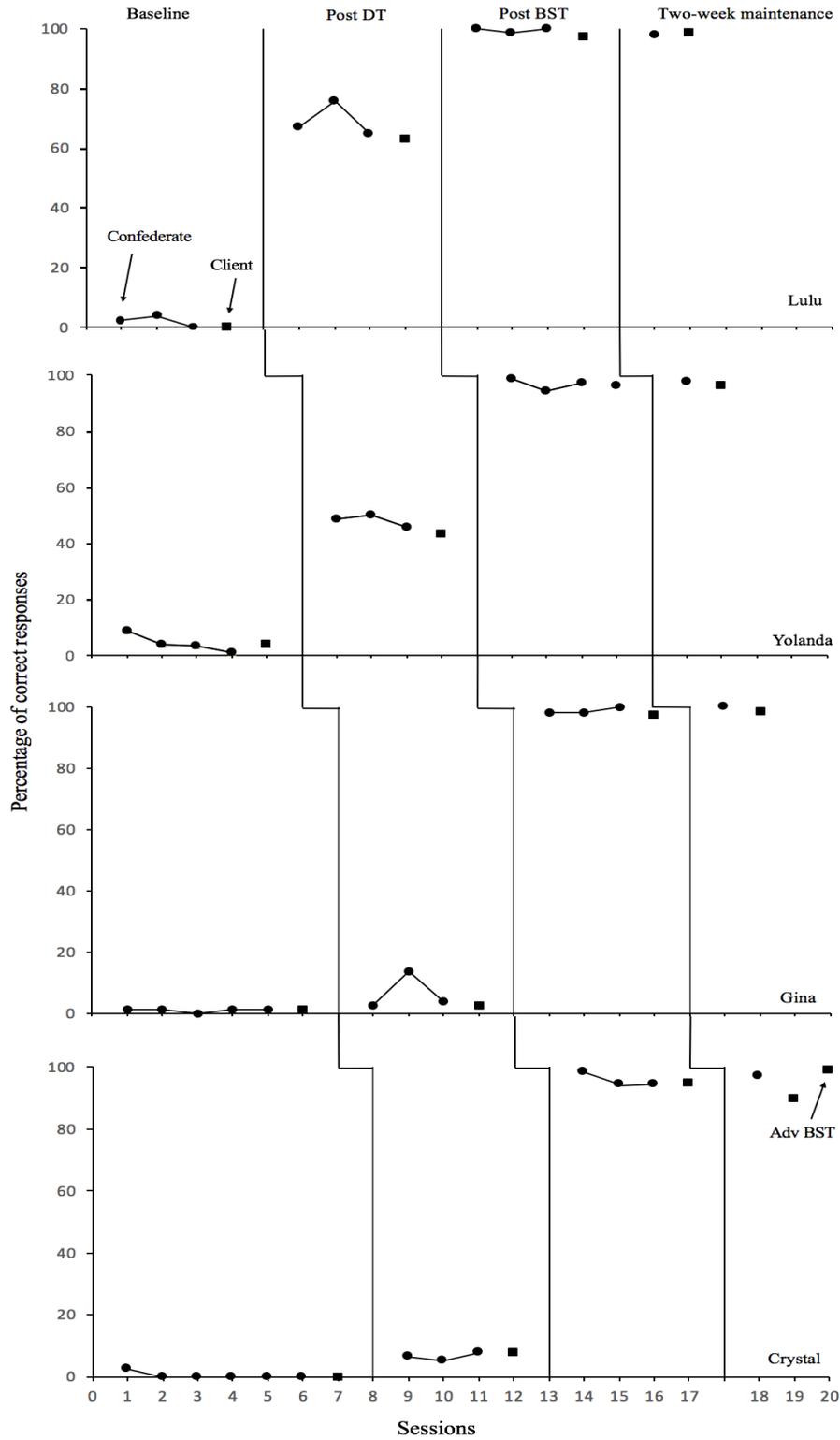


Figure 1. Data representing the percentage of correct responses of participants implementing a multiple-stimulus without replacement preference assessment.

responses in the single client probe. For the other two participants, responding increased to low levels between 2.5% and 13.9%. Gina scored 2.5%, 13.9% and 3.8% correct responses across three test sessions with confederates, and 2.56% in the single client probe. Crystal scored 6.41%, 5.06% and 7.69% correct responses across three test sessions with confederates, and 7.69% in the single client probe.

During BST, participants were required to conduct MSWO test sessions and score at least 90% correct responses across three consecutive test sessions. All four participants scored at or above mastery levels in all three consecutive test sessions and none required extra coaching in between test sessions. Table 1 depicts the results of these tests sessions for each participant. All four participants had treatment integrity scores at high levels. Lulu scored 97.4%, 95.8% and 97.5% correct responses across three consecutive test sessions. Yolanda scored 98.1%, 100% and 100% correct responses across three consecutive test sessions. Gina scored 98.5%, 100%, 98.5% correct responses across three consecutive test sessions. Crystal scores 98.1%, 98.1% and 97.6% correct responses across three consecutive test sessions.

Table 1

*Data Representing the Percentage of Correct Responses for Participants During the Behavioral Skills Training Session*

Name	Test 1 (%)	Test 2 (%)	Test 3 (%)
Lulu	97.4	95.8	97.5
Yolanda	98.1	100.0	100.0
Gina	98.5	100.0	98.5
Crystal	98.1	98.1	97.6

In the post-BST phase, responding for all participants rose to high and stable levels. Lulu scored 100%, 98.7%, and 100% correct responses across three test sessions with confederates, and 97.4% in the single client probe. Yolanda scored 98.5%, 94.3%, and 97% of correct responses across three test sessions with confederates, and 96.1% in the single client probe. Gina scored 98.1%, 98.1%, and 100% of correct responses across three test sessions with confederates, and 97.4% in the single client probe. Crystal scored 98.5%, 94.4%, and 94.5% of correct responses across three test sessions with confederates, and 94.8% in the single client probe.

In the maintenance session, treatment integrity scores for all participants remained at mastery levels for all but one participant. Lulu scored 98.1% correct responses in a single confederate probe and 98.7% in a single client probe. Yolanda scored 97.5% correct responses in a single confederate probe and 96.1% in a single client probe. Gina scored 100% correct responses in a single confederate probe and 98.7% in a single client probe. Crystal scored 97% correct responses in a single confederate probe and 89.7% in a single client probe. Following an advanced BST session, Crystal scored 98.7% correct responses in the subsequent client probe. Figure 1 shows the results for all participants.

DT sessions were shorter in duration than BST sessions. Table 2 and Figure 2 display duration data for each participant for each training method. For Lulu, the DT session lasted 8 min and 50s while the BST session lasted 63 min 40 s. For Yolanda, the DT session lasted 8 min 38 s and the BST session lasted 56 min 35s. For Gina, the DT session lasted 7 min 8 s and the BST session lasted 63 min 4 s. For Crystal, the DT session lasted 7 min 46 s, the initial BST session lasted 59 min 4 s and the booster session

Table 2

*Data On the Duration of Didactic and Behavioral Skills Training*

Participant	DT (min/sec)	BST (min/sec)	BST booster
Lulu	8 min 50 s	63 min 57 s	n/a
Yolanda	8 min 38 s	56 min 35s	n/a
Gina	7 min 8 s	63 min 4 s	n/a
Crystal	7 min 46 s	59 min 4 s	5 min 7 s
Mean	8 min 6 s	61 min 56 s	

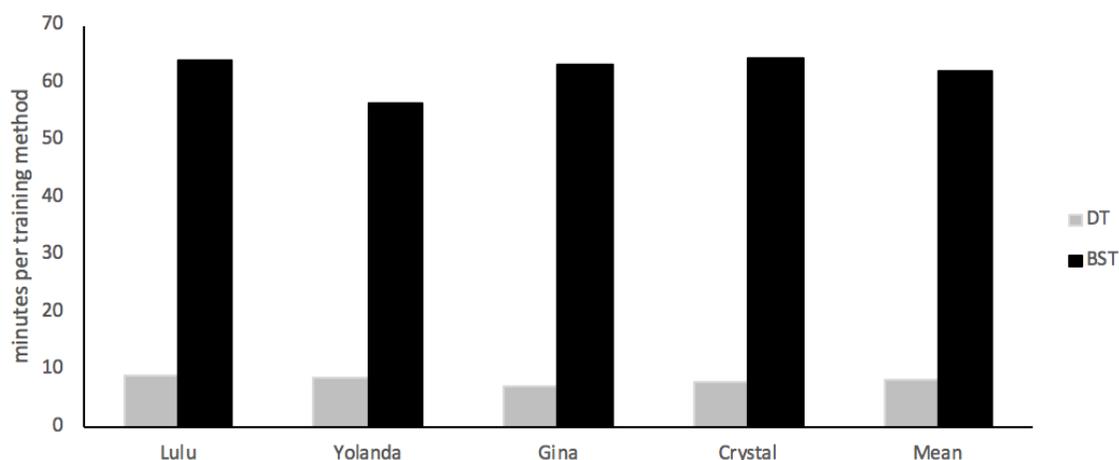


Figure 2. Duration data of each training method for all four participants.

lasted 5 min 7 s. For Crystal the total duration of BST sessions was 64 min 11 s. The average duration of DT sessions was 8 min 6 s. The average duration for BST sessions, including the booster session was 61 min 56 s. The average difference between these training methods was 53 min 50 s. Table 1 and Figure 1 represent the duration of DT and BST training sessions.

Participants responded favorably to the social validity questionnaire and indicated that BST was useful for their position, would recommend this training to their peers and

when given a choice of training method would choose BST over DT. The social validity utilized a Likert scale, where “1” represented strongly agree, “2” represented agree, “3” represented a neutral point, “4” represented disagree and “5” represented strongly disagree. Table 3 shows the collective responses for participants across all questions. For question one, 75% of participants strongly agreed that the BST method was useful to

Table 3

*Social Validity Questionnaire Aggregate Results*

Heading	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
Questions about BST					
1. The BST training method was useful to learn a skill for my position	75	25			
4. After the BST method, I felt confident in conducting a MSWO preference assessment	50	50			
5. The amount of time spent in BST was appropriate to learn a skill for my position	50	50			
8. I enjoyed the BST method	25	75			
9. I would recommend the BST training method to my peers	75	25			
Questions about DT					
2. The didactic method was useful to learn a skill for my position		50	25	25	
3. After the didactic training method, I felt confident in conducting a MSWO preference assessment			75		25
6. The amount of time spent in the didactic training method was appropriate to learn a skill for my position			50	50	
7. I enjoyed the didactic training method			50	25	25
10. I would recommend the didactic training method to my peers			50	50	
		BST			Didactic
11. If given the choice for future trainings, I would choose the following method	100				0

learn a skill for his or her position, while 25% indicated that they agreed. For question two, 50% of participants agreed that the DT method was useful to learn a skill for his or her position, while 25% rated this question as neutral, and another 25% rated it as disagree. For question three, 75% of participants gave a neutral rating indicating that he or she felt confident conducting an MSWO preference assessment following DT. 25% of participants rated this question as strongly disagree. For question four, 50% of participants strongly agreed that he or she felt confident conducting an MSWO preference assessment following BST. 50% of participants rated this question as agree. For question five, 50% of participants strongly agreed that the amount of time spent in BST was appropriate to learn a skill for his or her position. 50% of participants rated this question as agree. For question six, 50% of participants provided a neutral rating that the amount of time spent in DT training was appropriate to learn a skill for his or her position. 50% of participants rated this question as disagree. For question seven, 50% of participants were neutral about enjoying the DT method. 25% responded with disagree and 25% with strongly disagree for this question. For question eight, 25% of participants strongly agreed that he or she enjoyed the BST method, while 75% of participants rated this question as agree. For question nine, 75% of participants strongly agreed that he or she would recommend BST to their peers, and 25% rated this question as agree. For question ten, 50% of participants were neutral about recommending DT to his or her peers, while 25% indicated disagree to this question. For question 11, 100% of participants indicate that if given a choice between training methods, he or she would choose BST over the DT method.

## CHAPTER V

### DISCUSSION

The purpose of this study was to compare the effects of BST and DT on treatment integrity scores of DCS implementing an MSWO, and to evaluate the extent to which improved treatment integrity scores would generalize to adults with disabilities and over time. The results showed that BST was an effective training method in achieving high (above 90%) treatment integrity scores for four direct care staff working with adults with disabilities in a DTC when conducting an MSWO preference assessment. These results also showed that BST produced better results as compared to DT, consistent with past research data (Roscoe & Fisher, 2008). Additionally, these results showed that BST was effective in sustaining mastery level scores for three of the four participants over time. These findings are consistent with results obtained by Roscoe and Fisher (2008) wherein feedback and role-play consistently produced high levels of correct responding when behavior technicians were trained to implement variations of a SPA. Future researchers could continue to investigate the use of BST with other preference assessments and behavioral interventions implemented in a DTC for adults with disabilities to strengthen the evidence that BST is an effective method in this setting.

For two of the four participants, Lulu and Yolanda, DT produced moderate levels of correct responding, however not sufficient to meet mastery criteria. For the remaining two participants, Gina and Crystal, DT produced low levels of correct responding suggesting that DT is not an adequate training method to produce reliable treatment integrity results. Crystal's responding below mastery criteria in the client probe of the

maintenance phase may be explained as a function of insufficient training exemplars. In session 19, the client responded in a fashion not observed throughout any session, and not included in any training scripts, therefore Crystal varied her responding inconsistent with training. Training with multiple exemplars paired with reminders for new generalization contexts may increase treatment integrity results. Research in the future could examine conducting this study with an increased number of exemplars in multiple contexts.

Another line of research could include the impact of varying levels of treatment integrity scores on the effectiveness of MSWO's. For example, Crystal scored 89.7% correct responses in the client probe of the maintenance phase, just under the set mastery criteria of 90%. Researchers might consider the effectiveness of MSWO's when treatment integrity falls below 90%.

These results also demonstrated that the DT took less time than the BST method. The reason for this was that BST was comprised of seven components, while DT only incorporates four components. BST sessions lasted longer due to the increased number of rehearsal and testing trials needed for the participant to achieve mastery. A participant who required more practice before mastery will increase the training session duration. It may be the case the additional time for these activities is critical to achieve the superior results. Research in the future could investigate ways to shorten the overall duration of BST by modifying components. For example, perhaps some time could be saved by removing the vocal description as an individual component, and instead pairing the vocal description with the model of the skill. Future researchers might also conduct longer maintenance and more varied generalization probes to explore if the increased up-front

time requirements are off-set by effects that sustain well over long periods and generalize to many individuals and contexts.

Results also indicate that BST was favored over the DT method amongst staff. These findings are consistent with the social validity results obtained in the case study by Parsons et al. (2012). Participants in that study scored all questions as very or extremely useful when asked about the usefulness of the BST method. Additionally, all participants indicated that they would recommend BST as a training method to their colleagues. It is important to note the verbal responses of the participants when completing the MSWO preference assessments during this phase. Comments such as “Now this makes sense!”, “That was much easier, I felt better with that” and “I actually feel like I know what I am doing” were observed during the BST phase.

These results have implications for human services agencies attempting to streamline their training processes while improving staff performance, client outcomes and possibly improving staff morale. Human service agencies are tasked with producing and reporting client outcomes and to do so in a cost-effective manner. Given that BST is an effective training method and results in a better return on investment (time training/quality of implementation) than DT methods, these results could be used to encourage human service agencies to consider BST as their standard method for training staff across training topics. Researchers could extend this line of investigation to other DTC’s serving adults with disabilities.

This study has some limitations for consideration. The MSWO preference assessment was the only SPA used in this study. Other variations of SPA’s were not

targeted. Readers should use caution when looking to extend these findings to other SPA's or other interventions. Past researchers have examined the effects of BST on staff performance when conducting an MSWO and paired stimulus assessments. Future research might consider examining the effects of BST on the treatment integrity scores of staff implementing other variations of SPA's such as single item, and free operant preference assessments. For example, researchers may conduct a study using the methodology of this study to teach staff to implement a single item or free operant preference assessment and compare the treatment results with that of this study. This type of research would strengthen the argument that BST is a clearly effective method for training staff on SPA's. Future research could investigate the effects of BST on other job tasks for DCS to expand the utility of BST.

Another limitation of this study was the manner in which social validity data were collected. Surveys have been highly criticized as a method for data collection (Parsons & Reid, 2012) because of the subjective nature of the rating scale. For example, in this study, staff were expected to rate the usefulness of the training for their position and to what extent they found the training enjoyable using a 1-5 rating scale. One staff member may be of the opinion that they do not give the highest score no matter how useful the training, while others consistently provide the highest score for anything they rate. A second complication with surveys, especially those administered in the work place, is that staff may fill out the survey based on what they think their employer wants to hear. For these reasons the survey in this study may not be a valid indicator of the acceptability of the BST method. The results of the social validity data should be examined with these

limitations in mind.

Human service agencies often have limited financial resources and allot what resources they have to programs and interventions that will take the least amount of time to implement but produce the greatest results. Thus, an avenue of future research to address this need is to conduct a cost savings analysis between the BST and DT methods in a longitudinal study. Researchers could first look at the number of times DT sessions are utilized to train staff on a particular intervention. As identified previously, staff who receive DT often have to be trained multiple times on the same intervention before positive results are seen. Researchers could then examine the duration of all these training sessions to obtain total duration data. These data are then compared to BST data collected in the same fashion. Positive results could provide a strong argument and clear case for the use of BST in human service agencies.

Last, future research could replicate methods from this study in new settings to see if results are similar across settings and not just unique to the DTC setting of this study. This type of research would strengthen the use of BST in day program settings. My hope is for DTC's to incorporate BST or similar training programs into their training systems to not only improve the lives of clients with disabilities, but to also support the skill development of DCS.

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APPENDICES

## Appendix A

### Pretest for Participant Selection

## MSWO PRETEST

Participant:

Date:

Time:

Questions	Circle One Answer	If yes, explain your understanding
1. Do you know what a stimulus preference assessment is?	Y Maybe N	
2. Have you previously received training in stimulus preference assessments?	Y Maybe N	
3. Do you know what a multiple stimulus without replacement (MSWO) preference assessment is?	Y Maybe N	
4. Have you received previously received training in multiple stimulus without replacement (MSWO) assessments?	Y Maybe N	
5. Have you conducted a stimulus a stimulus preference assessment before?	Y Maybe N	
6. Have you conducted a multiple stimulus without replacement preference assessment before?	Y Maybe N	
<b>FOR RESEARCH STAFF</b>		
Score on BST procedural integrity:		

Appendix B

Multiple-Stimulus Without Replacement Data Sheet

MSWO DATA SHEET					
(adapted from Carr, Nicolson, & Higbee; 2000)					
Client Name:					
Assessed by:					
Date:					
Time:					
STIMULUS ITEM	RANK BY TRIAL			Sum of Trials 1, 2 & 3	OVERALL RANK
	1	2	3		
New:					

Appendix C

Behavioral Skills Training Treatment Integrity Data Sheet

### MSWO TI DATA SHEET

**Observer: Participant:**

**Session: Date:**

Materials the observer will need: This data sheet, pen, calculator.

Instructions: Observe the participant following BST training. Circle "Y" to record that the participant accurately implemented the steps of the MSWO procedure. Circle N/A to indicate that the step was not necessary in the MSWO sequence. Circle N if the participant did not or did not accurately implement the steps of the MSWO procedure.

Tabulate % of steps implemented correctly by counting all Y's and dividing it by all possible steps of the MSWO procedure and then multiply by 100. Participants must score 90% or above

**Trial 1:**

1	Participant fills in data sheet listing all 5 items on left side of data sheet	Y	N
2	Participant places items in front of client & allow client to sample each item for at least 10 sec.	Y	N

3	Participant places all 5 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
4	Participant says "Pick one" to the client.	Y	N
5	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
6	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
7	After the client makes a selection, participant writes down number "1" next to the item selected, on data sheet.	Y	N/A N
8	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
9	Participant removes item from client and puts item out of sight	Y	N/A N

10	Participant randomly rearranges remaining 4 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
11	Participant says "Pick one" to the client.	Y	N
12	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
13	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
14	After the client makes a selection, participant writes down number "2" next to the item selected, on data sheet.	Y	N/A N
15	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
16	Participant removes item from client and puts item out of sight	Y	N/A N

17	Participant randomly rearranges remaining 3 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
18	Participant says "Pick one" to the client.	Y	N
19	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
20	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
21	After the client makes a selection, participant writes down number "3" next to the item selected, on data sheet.	Y	N/A N
22	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
23	Participant removes item from client and puts item out of sight	Y	N/A N

24	Participant randomly rearranges remaining 2 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
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25	Participant says "Pick one" to the client.	Y	N
26	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
27	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
28	After the client makes a selection, participant writes down number "4" next to the item selected, on data sheet.	Y	N/A N
29	Participant allows client access to chosen item for 10 sec while blocking access to other items	Y	N/A N
30	Participant removes item from client and puts item out of sight	Y	N/A N

31	Participant places remaining item on table about 12 inches from the edge of the table from the client	Y	N
32	Participant says "Pick one" to the client.	Y	N
33	After the client makes a selection, participant writes down number "5" next to the item selected, on data sheet.	Y	N
34	Participant allows client access to chosen item for 10 sec	Y	N
35	Participant removes item from client and puts item out of sight	Y	N

5 min br

**Trial 2:**

36	Participant randomly arranges 5 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
37	Participant says "Pick one" to the client.	Y	N
38	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
39	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
40	After the client makes a selection, participant writes down number "1" next to the item selected, on data sheet.	Y	N/A N
41	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
42	Participant removes item from client and puts item out of sight	Y	N/A N

43	Participant randomly rearranges remaining 4 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
44	Participant says "Pick one" to the client.	Y	N
45	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
46	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
47	After the client makes a selection, participant writes down number "2" next to the item selected, on data sheet.	Y	N/A N
48	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
49	Participant removes item from client and puts item out of sight	Y	N/A N

50	Participant randomly rearranges remaining 3 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
51	Participant says "Pick one" to the client.	Y	N
52	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
53	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N

54	After the client makes a selection, participant writes down number “3” next to the item selected, on data sheet.	Y	N/A	N
55	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A	N
56	Participant removes item from client and puts item out of sight	Y	N/A	N

57	Participant randomly rearranges remaining 2 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y		N
58	Participant says "Pick one" to the client.	Y		N
59	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A	N
60	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A	N
61	After the client makes a selection, participant writes down number “4” next to the item selected, on data sheet.	Y	N/A	N
62	Participant allows client access to chosen item for 10 sec while blocking access to other items	Y	N/A	N
63	Participant removes item from client and puts item out of sight	Y	N/A	N

64	Participant places remaining item on table about 12 inches from the edge of the table from the client	Y		N
65	Participant says "Pick one" to the client.	Y		N
66	After the client makes a selection, participant writes down number “5” next to the item selected, on data sheet.	Y		N
67	Participant allows client access to chosen item for 10 sec	Y		N
68	Participant removes item from client and puts item out of sight	Y		N

5 min break

### Trial 3

69	Participant randomly arranges 5 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y		N
70	Participant says "Pick one" to the client.	Y		N
71	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A	N
72	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A	N
73	After the client makes a selection, participant writes down number “1” next to the item selected, on data sheet.	Y	N/A	N
74	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A	N
75	Participant removes item from client and puts item out of sight	Y	N/A	N

76	Participant randomly rearranges the remaining 4 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y		N
77	Participant says "Pick one" to the client.	Y		N
78	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A	N
79	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A	N
80	After the client makes a selection, participant writes down number “2” next to the item selected, on data sheet.	Y	N/A	N
82	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A	N
82	Participant removes item from client and puts item out of sight	Y	N/A	N

83	Participant randomly rearranges remaining 3 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
84	Participant says "Pick one" to the client.	Y	N
85	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
86	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
87	After the client makes a selection, participant writes down number "3" next to the item selected, on data sheet.	Y	N/A N
88	Participant allows client to access chosen item for 10 sec while blocking access to other items	Y	N/A N
89	Participant removes item from client and puts item out of sight	Y	N/A N

90	Participant randomly rearranges remaining 2 items on table at equal distance apart & about 12 in from the edge of the table from the client	Y	N
91	Participant says "Pick one" to the client.	Y	N
92	If client attempts to pick more than one at the same time, participant blocks access to other items & repeats instruction	Y	N/A N
93	If client does not make a selection within 10 seconds of the instruction, participant stops trial and scores that & all remaining items as 5.	Y	N/A N
94	After the client makes a selection, participant writes down number "4" next to the item selected, on data sheet.	Y	N/A N
95	Participant allows client access to chosen item for 10 sec while blocking access to other items	Y	N/A N
96	Participant removes item from client and puts item out of sight	Y	N/A N

97	Participant places remaining item on table about 12 inches from the edge of the table from the client	Y	N
98	Participant says "Pick one" to the client.	Y	N
99	After the client makes a selection, participant writes down number "5" next to the item selected, on data sheet.	Y	N
101	Participant allows client access to chosen item for 10 sec	Y	N
101	Participant removes item from client and puts item out of sight	Y	N

102	Participant tabulates the data	Y	N
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(Total Y's) _____ / (total possible steps) _____ = _____ x 100% = _____
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Hand in data sheet to PRIMARY researcher at the end of each session

Appendix D

Written Instructions to Conduct Multiple-Stimulus Without Replacement

## WRITTEN INSTRUCTIONS TO CONDUCT MSWO-to be handed out during DT and BST training sessions

### MULTIPLE STIMULUS WITHOUT REPLACEMENT ASSESSMENT (MSWO)

#### **Rationale:**

When we implement an intervention we always want to make sure that the item we use as the “reward” acts as a reinforcer for the client. For example, if we are teaching a client to have calm hands for 5 minutes, when they have successfully reached the end of that 5 minutes we want to reward them with something that they will like or love. The reason for this is so that the client might be inclined to engage in that behavior (having calm hands) more frequently in the future.

Does that make sense to everyone?

Sometimes we assume that we know what the client may find reinforcing, or we may assume that the client really likes something when there may be something else that is preferred.

By implementing this MSWO or preference assessment we eliminate the guessing and we get closer at identifying things that may function as a reinforcer for the client.

#### **Intervention Description:**

A basket of 5 items will already be available for you. These items were chosen from items identified in a previous assessment. The client will also be seated at the table.

1. When you first start the assessment, begin by fill out the data sheet with the client’s name, and date. Also write all 5 items (from the basket) on the left side of the table on the data sheet.
2. Present the client each of the 5 items one at a time and allow the client to interact with each item for at least 10 seconds each.
3. Place all 5 items equal distance apart and about 12 inches from the edge of the table from the client.
4. Then you say “Pick one”
5. If the client attempts to pick more than one item, block access to the items and repeat the instruction to “pick one”.
6. After the client has made a selection, write the number “1” next to the item under trial 1.
7. Permit the client to manipulate the item for 10 seconds while scoop the remaining items into the basket.
8. Remove the item from the client and put the item out of sight (like on the floor) .
9. If the client does not make a selection within 10 seconds of your instruction to “pick one”, then end the trial and score that item and all remaining items as 5.
10. Place remaining 4 items equal distance apart and about 12 inches from the edge of

- the table from the client.
11. Then you say “Pick one”
  12. If the client attempts to pick more than one item, block access to the items and repeat the instruction to “pick one”.
  13. After the client has made a selection, write the number “2” next to the item under trial 1.
  14. Permit the client to manipulate the item for 10 seconds while scoop the remaining items into the basket.
  15. Remove the item from the client and put the item out of sight (like on the floor) .
  16. If the client does not make a selection within 10 seconds of your instruction to “pick one”, then end the trial and score that item and all remaining items as 5.
- 
17. Place all 3 items equal distance apart and about 12 inches from the edge of the table from the client.
  18. Then you say “Pick one”
  19. If the client attempts to pick more than one item, block access to the items and repeat the instruction to “pick one”.
  20. After the client has made a selection, write the number “3” next to the item under trial 1.
  21. Permit the client to manipulate the item for 10 seconds while scoop the remaining items into the basket.
  22. Remove the item from the client and put the item out of sight (like on the floor) .
  23. If the client does not make a selection within 10 seconds of your instruction to “pick one”, then end the trial and score that item and all remaining items as 5.
- 
24. Place all 2 items equal distance apart and about 12 inches from the edge of the table from the client.
  25. Then you say “Pick one”
  26. If the client attempts to pick more than one item, block access to the items and repeat the instruction to “pick one”.
  27. After the client has made a selection, write the number “4” next to the item under trial 1.
  28. Permit the client to manipulate the item for 10 seconds while scoop the remaining items into the basket.
  29. Remove the item from the client and put the item out of sight (like on the floor) .
  30. If the client does not make a selection within 10 seconds of your instruction to “pick one”, then end the trial and score that item and all remaining items as 5.
- 
31. Place the remaining item about 12 inches from the edge of the table from the client.
  32. Then you say “Pick one”
  33. After the client has made a selection, write the number “5” next to the item under trial 1.

34. Permit the client to manipulate the item for 10 seconds.
35. Remove the item from the client and put the item out of sight (like on the floor) .

Steps 3-35 are considered trial 1. To complete the assessment, you must complete two more trials for a total of 3 trials. Provide the client with a brief break (2-5 min) in between trials.

#### Step 102

At the end of trial 3, tabulate the data, by summing the score of each item across trials 1, 2, and 3. Enter this total into the “sum of trials” column. Do this for each item.

In the overall rank column, place a 1 next to the item with the lowest score, a 2 next to the item with the next lowest score, a 3 for the next lowest scoring item and so on until all items are ranked from 1-5.

You are now finished!

Appendix E

Didactic Training Session—Task Analysis

Implementer: Trainer

Materials needed: this task analysis form, assessment, MSWO data sheet, pen, and calculator, written description of MSWO & training log form.

Follow the steps below for training on a MSWO preference assessment using the didactic training method.

**1. Start timer**

**2. Introduce the intervention**

“We will be learning how to implement an assessment called a multiple stimulus without replacement (MSWO) to identify potential reinforcers for clients you work with.”

**2. Provide rationale for intervention**

“When we implement a strategy or intervention we always want to make sure that the item we use as the “reward” acts as a reinforcer for the client. For example, if we are teaching a client to have calm hands for 5 minutes, when they have successfully reached the end of that 5 minutes we want to reward them with something that they will like or love. The reason for this is so that the client might be inclined to engage in that behavior (having calm hands) more frequently in the future.

Sometimes we assume that we know what the client may find reinforcing., or we may assume that they really like something when there may be something else that might be better.

By implementing this MSWO or preference assessment, we eliminate the guessing and we get closer at identifying things that may really function as a reinforcer for a client.”

**3. Hand out Description of MSWO**

Here is a copy of how to implement and MSWO

**4. Provide a vocal description of the MSWO**

Begin by stating that a reinforcer assessment has already been conducted to determine some items that the client might prefer and a few random items to include in the assessment

Discuss the steps (in order) to implement the MSWO. You may have the staff take turns in reading (out loud) the steps.

**5. Open it up for questions and answers**

“Do you have any questions?”

**6. Provide vocal only answers to questions**

Should staff have questions, answer the questions as best as you can referring to the written description.

\* For the purposes of this study the participant will not be permitted to take the written description with them.

**7. Stop the time once the participant indicates that they no longer have any questions.**

### **8. Training Log**

Trainer hands out the training log for the participant to sign.

Write training duration in minutes and seconds on the training log. The training log will have a place for the trainer and one observer to record the duration times for the training. See training log.

Appendix F

Didactic Training Session—Treatment Integrity Checklist

Didactic Training Treatment Integrity Checklist				
Observer:				
Date:				
Trainer:				
Participant:				
Session:				
Materials the observer will need: Stop watch, this data sheet, pen, calculator				
Instructions: Begin the stop watch the moment the trainer begins to introduce the intervention. Observe the trainer and for each item below, use a "Y" to indicate that the trainer completed the step and, "N/A" to indicate that the step was not necessary for the training and "N" if the trainer did not implement the step or did not implement the step correctly. Stop the stopwatch once the last question has been answered.				
1	Start timer	Y	N	<b>Duration</b>
2	Introduce the intervention	Y	N	
2	Provide rationale for intervention.	Y	N	
3	Hand out the written description of the MSWO procedure	Y	N	
4	Provide vocal description of MSWO steps. Participant may take turns in reading written description	Y	N	
5	Trainer asks "Do you have any questions?"	Y	N	
6	Provides vocal answers only.	Y	N/A	N
7	Trainer stops timer	Y	N	
8	Hands out training log for staff to sign.	Y	N	
Total "Y's" _____ / (total possible steps) _____ = _____ x 100% = _____				
Session duration (in min and sec) + _____				

Hand in data sheet to student researcher at the end of each training session

Appendix G

Behavioral Skills Training Task Analysis

Implementer: Trainer (research staff)

Materials needed: this task analysis form, various items to use for the preference assessment, MSWO data sheet, pen, and calculator, written description of MSWO assessment, training log and timer

Follow the steps below for training on a MSWO preference assessment using BST.

### **1. Introduce the intervention (start timer)**

Start timer

We will be learning how to implement an assessment called a multiple stimulus without replacement (MSWO) to identify potential reinforcers for clients you work with.

### **2. Provide rationale for intervention**

“When we implement a strategy we always want to make sure that the item we use as the ‘reward’ acts as a reinforcer for the client. For example, if we are teaching a client to have calm hands for 5 minutes, when they have successfully reached the end of that 5 minutes we want to reward the behavior with something that they will like or love. The reason for this is so that the client might be inclined to engage in that behavior (having calm hands) more frequently in the future.

Does that make sense to everyone?

Sometimes we assume that we know what the client may find reinforcing, or we may assume that they really like something when there may be something else that might be better.

By implementing this MSWO or preference assessment, we eliminate the guessing and we get closer at identifying things that may really function as a reinforcer for a client.”

### **3. Hand out Description of MSWO**

“Here is a copy of how to implement an MSWO”

### **4. Provide a vocal description of the MSWO**

Begin by stating “An assessment to determine potential items/activities to use in the preference assessment has already been conducted. A novel item for each client has also been chosen to include in the preference assessment.”

Discuss the steps (using the MSWO TI data sheet) to implementing the MSWO. You may have the staff take turns in reading (out loud) the steps.

### **5. Demonstrate how to implement an MSWO through a model.**

Ask a staff to volunteer to be the client and complete the steps to conduct the MSWO ensuring that you pause and explain what you are doing as you go. Ensure you include: (a) a client who makes one choice during each trial within the time prescribed, (b) how to block a client who chooses more than one item, and (c) how to score when a client does not choose an item or makes a choice outside of the prescribed time. Follow the steps

identified in the MSWO TI data sheet to model the MSWO to staff.

**6. Have the staff practice implementing the MSWO**

Ask the staff to now serve the role of implementer and to implement the MSWO as they observed.

**7. Provide corrective feedback for every incorrect response**

While staff are practicing, provide corrective feedback on an FR1 and if necessary model the step again and have the staff repeat the step.

**8. Provide praise for every correct response**

While staff are practicing provide immediate vocal praise specifically identifying what the staff performed correctly at a FR1.

**9. Repeat steps 5-8 until staff achieve mastery.**

Continue to provide corrective feedback and praise until staff implement the MSWO at 90% accuracy

**10. Using the task analysis (MSWO TI data sheet). score the staff's performance\***

Staff must score 90% accuracy for 3 consecutive sessions for mastery to be achieved.

**11. Open it up for questions and answers**

Does anyone have questions?

**12. Training Log**

Once the last question has been answered, hand out the training log for all staff to sign. Write training duration in minutes and seconds on the training log. The training log will have a place for the trainer and one observer to record the duration times for the training. See training log.

\* Note that staff will need to submit to additional implementation sessions in order to achieve mastery which is 90% across three consecutive sessions. These sessions will also need to be timed

Appendix H

Behavioral Skills Training Session—Treatment Integrity

BST Treatment Integrity Checklist			
Observer:			
Date:			
Trainer:			
Participant:			
Session:			
Materials the observer will need: Stop watch, this data sheet, pen, & calculator.			
Instructions: Begin the stopwatch the moment the trainer begins to introduce the intervention. Observe the trainer and for each item below, use a "Y" to indicate that the trainer completed the step and, "N/A" to indicate that the step was not necessary for the training and "N" if the trainer did not implement the step or did not implement the step correctly. Stop the stopwatch once the last question has been answered.			
1	Start timer	Y N	<b>Duration</b>
2	Introduce the intervention	Y N	
2	Provide rationale for intervention	Y N	
3	Hand out the written description of the <u>MSWO</u> procedure	Y N	
4	Provide vocal description of <u>MSWO</u> steps	Y N	
5	Demonstrate (model) how to implement an <u>MSWO</u>	Y N	
6	Instructs staff to practice rehearse the implementation of the <u>MSWO</u>	Y N	
7	Provide corrective feedback on an FR1 schedule	Y N	
8	Provide praise on an FR 1 schedule	Y N	
9	Test 1: Using the <u>MSWO</u> TI data sheet, score the participant's performance	Y N	
10	If the staff scores below 90% TI, repeat steps 5-8 and then proceed to Test 2. If the staff scores 90% or above move onto Test 2.	Y N/A N	
11	Test 2: Using the <u>MSWO</u> TI data sheet, score the participants performance.	Y N	
12	If the staff scores below 90% TI, repeat steps 5-8 and then proceed to Test 3. If the staff scores 90% or above move onto Test 3.	Y N/A N	
13	Test 3: Using the <u>MSWO</u> TI data sheet, score the participant's performance	Y N	
14	If the staff scores below 90% TI, repeat steps 5-8 and then proceed to Test 4. If the staff scores 90% or above move onto Test 4.	Y N/A N	
15	Test 4: Using the <u>MSWO</u> TI data sheet, score the participant's performance	Y N/A N	
16	If the staff scores below 90% TI, repeat steps 5-8 and then proceed to Test 5. If the staff scores 90% or above move onto Test 5.	Y N/A N	
17	Test 5: Using the <u>MSWO</u> TI data sheet, score the participant's performance	Y N/A N	
18	If the staff scores below 90% TI, repeat steps 5-8 and then proceed to Test 5. If the staff scores 90% or above move onto Test 5.	Y N/A N	
19	Test 6: Using the <u>MSWO</u> TI data sheet, score the participant's performance	Y N/A N	
20	Stop timer (when staff score 90% or above TI across three consecutive training sessions. )	Y N	
21	Hands out training log for staff to sign.	Y N	
Total "Y's" / (total possible steps) = x100%=			
Session Duration:			

(Mastery is achieved when staff are able to score 90% accuracy across three consecutive training sessions. If staff require more than 6 tests to achieve mastery, another BST TI checklist will be used to continue documentation of the BST training sessions.

Hand in data sheet to student researcher at the end of each training session

## Appendix I

### Scripts

## Scripts for didactic training and BST sessions

### Script 1: No issues

1. Participant will place 5 items are placed before you and you interact with each item for about 5 seconds each. Participant may hand you items to interact with.
2. Participant will ask you to “pick one”.
3. **Confederate:** Pick your most desired item from the array. Interact with it.
4. Participant will ask for item back.
5. **Confederate:** Hand item back to participant upon request.
6. Participant will ask you to “pick one.”
7. **Confederate:** Pick your most desired item from the array. Interact with it.
8. Participant will ask for item back.
9. **Confederate:** Hand back item to participant upon request.
10. Participant will continue to ask you to pick one item from the array and will then ask for it back. **Confederate will comply with all demands for the rest of the assessment.**

### Script 2: Confederate picks two items at same time

1. Participant will place 5 items are placed before you and you interact with each item for about 5 seconds each. Participant may hand you items to interact with.
2. Participant will ask you to “pick one”.
3. **Confederate:** Pick your most desired item from the array. Interact with it.
4. Participant will ask for item back.
5. **Confederate:** Hand item back to participant upon request.
6. Participant will ask you to “pick one.”
7. **Confederate:** Pick two items at the same time.
8. Participant will block you reaching for two items or will return the items to you chose to the array and will repeat the instruction to “pick one.”
9. **Confederate:** Pick your most desired item from the array.
10. Participant will allow you 10 seconds access and then request for the item back.
11. **Confederate:** Return item to participant upon request.
12. Participant will continue to ask you to pick one item from the array and will then ask for it back. **Confederate will comply with all demands for the rest of the assessment.**

### Script 3: Confederate doesn't pick any items

1. Participant will place 5 items are placed before you and you interact with each item for about 5 seconds each. Participant may hand you items to interact with.
2. Participant will ask you to “pick one”.
3. **Confederate:** Pick your most desired item from the array. Interact with it.
4. Participant will ask for item back.
5. **Confederate:** Hand item back to participant.
6. Participant will ask you to “pick one.”

7. **Confederate:** Pick your most desired item from the array. Interact with it.
8. Participant will ask for item back.
9. **Confederate:** Hand item back to participant.
10. Participant will ask you to “pick one.”
11. **Confederate:** Do not pick any items.
12. Participant should end the session. If participant continues, be sure to not pick any items when instructed to do so.

**Script 4: Confederate picks an item outside the specified amount of time**

1. Participant will place 5 items are placed before you and you interact with each item for about 5 seconds each. Participant may hand you items to interact with.
2. Participant will ask you to “pick one”.
3. **Confederate:** Pick your most desired item from the array. Interact with it.
4. Participant will ask for item back.
5. **Confederate:** Hand item back to participant.
6. Participant will ask you to “pick one.”
7. **Confederate:** Pick your most desired item from the array. Interact with it.
8. Participant will ask for item back.
9. **Confederate:** Hand item back to participant.
10. Participant will ask you to “pick one.”
11. **Confederate:** Count to 15 seconds and then pick an item.
12. Participant should end the session. If participant continues, be sure to wait 15 seconds after the instruction is given to “pick one” and then select an item.

Appendix J  
Training Log



Appendix K  
Social Validity Questionnaire

SOCIAL VALIDITY QUESTIONNAIRE					
Please select the number that best represents how you feel about the statements below as it relates to the training you received using behavioral skills training (BST)					
Question	Strongly Agree	Agree	Neutral or undecided	Disagree	Strongly disagree
1. The BST training method was useful to learn a skill for my position.	1	2	3	4	5
2. The lecture (didactic) method was useful to learn a skill for my position.	1	2	3	4	5
3. After the lecture (didactic) training method, I felt confident in conducting a MSWO preference assessment.	1	2	3	4	5
4. After the BST training method, I felt confident in conducting a MSWO preference assessment.	1	2	3	4	5
5. The amount of time spent in BST was appropriate to learn a skill for my position.	1	2	3	4	5
6. The amount of time spent in lecture (didactic) training was appropriate to learn a skill for my position.	1	2	3	4	5
7. I enjoyed the lecture (didactic) training method.	1	2	3	4	5
8. I enjoyed the BST method.	1	2	3	4	5
9. I would recommend the BST training method to my peers	1	2	3	4	5
10. I would recommend the lecture (didactic) training method to my peers.	1	2	3	4	5
11. If given the choice for future trainings I would choose the following method ( <i>circle one</i> )					
BST			Lecture (Didactic)		

Appendix L

Multiple-Stimulus Without Replacement Test Sessions TI Checklist

### MSWO test sessions TI Checklist

Observer:

Date:

Lead Researcher:

Participant:

Session:

Materials the observer will need: this data sheet and a pencil			
Instructions: Observe the lead researcher implement the steps below. Circle "Y" to indicate that the trainer completed the step accurately, an "N/A to indicate that the step was not necessary, and "N" if the trainer did not implement the step or did not implement the step correctly.			
1	Quote instructional script to participant	Y	N
2	The lead researcher then asks the participant if they have any questions	Y	N
3	The lead researcher responds without providing any further information than what is already included in the instructional script	Y	N/A
4	If the participant chooses to not participate, the lead researcher immediately stops the session.	Y	N/A
5	Lead researcher directs participant to classroom	Y	N
6	If the participant asks a question, the lead researcher states, "Just do it to the best of your ability" (Score, using a tally mark, each time the participant asks the lead researcher a question)	Y	N/A
			N
7	Once the participant indicates they are finished, the lead researcher ends the session.	Y	N
Total "Y's" _____ / (total possible steps) _____ = _____ x 100% = _____			

Hand in data sheet to student researcher at the end of each training session