AN EVALUATION OF PERFORMANCE FEEDBACK TRAINING ON STAFF IMPLEMENTATION OF TRIAL-BASED FUNCTIONAL ANALYSIS

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Jenifer N. Price

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AN EVALUATION OF PERFORMANCE FEEDBACK TRAINING ON STAFF IMPLEMENTATION OF TRIAL-BASED FUNCTIONAL ANALYSIS

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by
Jenifer N. Price

Approved by:

Rocky Belfiore, Ph.D.  Committee Chair

Ciao Miguel, Ph.D.  Second Reader

Megan Heinicke, Ph.D.  Third Reader

Date

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Student: Jenifer N. Price

I certify that this student has met the requirements for format contained in the University format manual, and that this thesis is suitable for shelving in the Library and credit is to be awarded for the thesis.

Lisa M. Boho, Ph.D.
Graduate Coordinator

November 28, 2016

Department of Psychology
Abstract

of

AN EVALUATION OF PERFORMANCE FEEDBACK TRAINING ON STAFF IMPLEMENTATION OF TRIAL-BASED FUNCTIONAL ANALYSIS

by

Jenifer N. Price

This study examined the effectiveness of performance feedback (PFB) training to train nine undergraduate students with no previous coursework experience in Applied Behavior Analysis (ABA) to conduct trial-based functional analyses (TBFA). Effects of self-review of a task analysis (TA) checklist, written instructions in non-behavioral language (WI) or article review (AR), and small group PFB training were evaluated. In contrast to previous research, training did not include any didactic instruction on the principles of ABA and rationale of functional analysis methodology. TA with written instructions was found to be insufficient, but the addition of small-group training with PFB was found to be effective. Results offer a socially valid training protocol to teach paraprofessionals to assist certified behavior analysts in conducting TBFA in applied settings.

Becky Pendleton, Ph.D, BCBA-D

Committee Chair

Date
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I’m grateful for the love and support from my family - my husband, mother and children are my everything. I would also like to thank the National Alliance on Mental Illness, particularly the Yolo Chapter, for their support of my family through continued difficult times. When behavioral science actively works it’s way into the mainstream to provide evidence-based practice across the breadth of populations who can benefit from socially significant changes in behavior, that is when the hopes of families and aspirations of our communities and society can truly be realized. I’m glad to be a part of a field that actively embodies such hopes.
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Chapter 1
BACKGROUND ON FUNCTIONAL ANALYSIS PROCEDURES

Research has demonstrated that 10-20% of children with intellectual disabilities exhibit problem behaviors (Jacobson, 1982; Kiernan & Kiernan 1994; Oliver, Murphy, & Corbett, 1987), and the majority of these individuals show two or more forms of challenging behavior (Emerson et al. 2001). Individuals with an autism diagnosis are significantly more likely to exhibit self-injury, aggression, and property destruction than individuals with other diagnoses (McClintock, Hall, & Oliver, 2003). These problem behaviors may be barriers to learning and lead to unfavorable outcomes, including the increased use of psychoactive drugs (Jacobson, 1982), increased use of punishment procedures (Alexrod, 1987), placements in more restrictive environments (Lerman & Vorndran, 2002), and academic underachievement compared to peers with similar skill sets (Hinshaw, 1992).

Effective treatments for behavior excesses can be developed once the function of the problem behavior is determined. The function of the problem behavior can be used to guide empirically validated interventions that include antecedent and consequence-based interventions, such as elimination of establishing operations via noncontingent reinforcement, extinction, or differential reinforcement procedures such as Functional Communication Training (FCT) (Carr, Coriaty, & Dozier, 2000; Carr & Durand, 1985; Iwata et al., 1994). Several types of functional assessments are used in clinical settings to identify the environmental variables that may contribute to the maintenance of problem behaviors.
behavior. These functional assessments include indirect measures such as interviews, questionnaires, and rating scales (Functional Analysis Interview or FAI; O'Neil, Horner, Alsin, Sprague, Storey, & Newton, 1997; Motivation Assessment Scale or MAS; Durand & Crimmins, 1992; Problem Behavior Questionnaire or PBQ; Lewis, Scott, & Sugai, 1994; Functional Analysis Screening Tool or FAST; Iwata & DeLeon, 1996), direct observation providing descriptive analysis of the temporal relationships between antecedents, behaviors, and consequences occurring in the natural environment (Bijou, Peterson, & Auk, 1968; Lerman & Iwata, 1993; Sulzer-Axaroff & Mayer, 1977; Touchette, MacDonald, & Langer, 1985; Vollmer, Borrero, Wright, Van Camp, & Lalli, 2001), and Functional Analysis (FA; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982/1994).

The Individuals with Disabilities Education Act Amendments (IDEA, 1997, 20 U.S.C. § 1401) mandate the use of empirically validated assessments and interventions, and require that behavior intervention plans be based upon functional assessment of the problem behavior (Carter, 2008; Van Acker, Boreson, Gable, & Potterton, 2005). Indirect measures and descriptive analyses are widely available and commonly used to assess the functions of problem behaviors by clinicians and educators (Desrochers, Hile & Williams-Mosey, 1997; Ellingson, Miltenberger, & Long, 1999; Van Acker et al., 2005). Practitioners rate descriptive assessments as being more useful than an experimental (functional) analysis, reporting difficulties with obtaining environmental control, administration, and collecting data, as well as time constraints (Desrochers et al., 1997). Due to the wide use of descriptive assessments, Ellingson et al., (1999) suggested that
those direct and indirect assessments be taught to nonprofessionals rather than FAs. Yet, the adequacy of training provided to those who administer these assessments has been questioned (Scott & Nelson, 1999; Van Acker et al., 2005) because research has consistently shown that these assessments have low reliability and lack validity (Barton-Arwood, Webby, Gunter, & Lane, 2003; Iwata, DeLeon & Roscoe, 2013; Kelley, Roxne, LaRue & Gadaire, 2011; Pence, Roscoe, Bourret, & Ahearn, 2009; Sturmey, 1994).

Alternatively, FA methodology, first described by Iwata et al., (1982/1994), has been shown to be the most accurate method for experimentally identifying reinforcers that are functionally related to problem behaviors (Arndorfer & Miltenberger, 1993; Mace, 1994). FA has also been shown to reliably guide the development of effective function-based interventions (e.g., Hagopian, Fisher, & Legacy, 1994; Iwata, Pace, Cowdery, & Miltenberger, 1994; Vollmer, Marcus, & Ringdahl, 1995). The prolific use of indirect measures and direct observation assessment tools instead of experimental methods suggest that factors such as ease of implementation, perceptions of usefulness, wide availability, and/or inadequate training in analytic methods are all variables controlling the selection of functional assessment procedures (Beavers, Iwata, & Lerman, 2013). As such, identifying a FA methodology that addresses these limitations and has social validity in applied settings may be critical to increasing usage (Wolf, 1978).

**Standard Functional Analysis**

The standard functional analysis (SFA) consists of the presentation of a repeated series of alternating test and control conditions across 10-15 sessions (Iwata et al., 1982/1994). In each of the test conditions, every instance of problem behavior is
followed by a specific consequence that is tested as a possible reinforcer for the target problem behavior (TPB). The consequences include obtaining different categories of reinforcement: social positive (attention condition), social negative, such as the removal of a demand (escape condition), access to tangibles (tangible condition), and automatic reinforcement (ignore or alone condition), in which the behavior in and of itself is reinforcing and thus occurs across conditions and/or when the child is ignored or alone.

In the control condition, attention and tangibles are provided and no demands are placed, which is intended to simulate an ideal environmental conditions where the TPB should not occur. The procedure employs a multi-element design, rapidly alternating these conditions across sessions as many times as necessary and measuring the frequency of problem behavior within each condition. The function of problem behavior is determined by a differential pattern of responding between test conditions and the control condition.

Limitations of SFA and Alternative Functional Analyses

Although SFA is the most rigorous assessment of problem behaviors, a number of limitations of SFA procedures can be prohibitive to implementation in applied settings and have led to the examination of various procedural modifications (Ervin et al., 2001; Iwata & Dozier, 2008; Sterling-Turner, Robinson, & Wileyzniski, 2001). Some of the limitations to SFA that have been noted are risk to participants, demands of time and space, possible missing environmental variables and staff demands.

Risk to participants. Since each SFA session involves repeated exposure to conditions that may occasion the TPB, the procedure may pose an increased risk to participants due to severe problem behavior being evoked repeatedly (Repp, 1994; Smith
& Churchill, 2002). Modifications to address this limitation have included latency-based analysis and precursor analysis. Measuring response latency, the time elapsed from the onset of a stimulus (i.e., the discriminative stimulus related to each FA condition) to the occurrence of the problem behavior, greatly decreases the number of emitted behavior excesses in each condition (Neidert, Iwata, Dempsey, & Thomason-Sassi, 2013; Thomason-Sassi, Iwata, Neidert, & Roscoe, 2011). Modifying SFA by analyzing a less severe precursor behavior that reliably precede the problem behavior may also reduce the instances of the problem behavior (Herscovitch, Roscoe, Libby, Bourret, & Ahearn, 2009; Smith & Churchill, 2002) and has been shown to lead to effective behavioral interventions (Najdowski, Wallace, Ellsworth, MacAleese, & Cleveland, 2008). Time demands. As SFA can be time-consuming, the use of relatively brief session durations has been examined. Northup and colleagues (1991) used a brief FA in an outpatient clinic setting involving one or two exposures to 5-min SFA sessions, but the functions of the problem behavior were not reliably identified. Replication studies found that the brief FA identified the function of problem behavior in 50% of cases (Derby et al. 1992; Wacker, et al. 1994). Wallace and Knights (2003) studied a brief FA procedure administered by researchers in a vocational training setting that predicted function for two of three participants. This procedure, although brief, had other limitations common to SFA regarding risks to participants, as it did not limit the frequency of problem behaviors emitted. More recently, a brief FA using three 5-min alone/ignore sessions showed high predictive validity for automatic versus a social function (Querim et al., 2013). Although this may be a way to screen for problem behaviors with an automatic function, the
analysis does not identify potential social reinforcers or discern if a behavior is multiply controlled.

Space. Some service settings lack assessment spaces that allow for the environmental control required for SFA (Ervin et al., 2001; Sterling-Turner et al., 2001). To examine SFA use in naturalistic settings, McCord, Thompson, and Iwata (2001) have conducted a series of SFA probes throughout the day in natural settings. Similar SFA probes have been conducted in the classroom setting (Wright-Gallo, Higbee, Reagon, & Davey, 2006) and in the home setting (Wacker, Berg, Derby, Asmus, & Healey, 1998). Limiting factors of SFA probes are the demands on staff, training and time, as well as the need to rearrange the environment in order to administer the SFA (e.g., removing furniture and other individuals).

Missing environmental variables. Certain people or features in the natural environment that may function as establishing operations or discriminative stimuli that occasion problem behavior may not be translated into the SFA analogue setting. Studies have shown that SFAs administered by familiar individuals more reliably evoke problem behavior across multiple conditions with differentiated patterns of responding (English & Anderson, 2004; McAdam, DiCesare, Murphy, & Marshall, 2004; Ringdahl & Sellers, 2000; Tiger, Fisher, Toussaint, & Kodak, 2009) and that these differences were consistent across settings (Thomason-Sassi, Iwata, & Fritz, 2013). Similarly, a study by Huete and Kurtz (2010) found that the presence of a caregiver clarified the outcome of the SFA.

Staff demands. Administering SFA in a classroom setting requires at least two trained adults to implement procedures, which may contribute to its underuse in natural
settings (Kodak, Fisher, Paden, & Dickes, 2013). In order to collect within-session data (e.g., frequency, partial-interval data), a separate person is often needed to interact with the client or videotape the session for later coding of the child's behavior. Further, additional staff may be needed to assist with tasks such as alteration of the environment. Lastly, administration by staff, such as teachers, can be prohibitive if it interferes with other job duties (Kodak et al., 2013).

**Trial-based Functional Analysis**

To address the limitations of SFA, studies have focused on modified FA methods that can be used in situations where a SFA is not feasible, such as trial-based functional analyses (TBFA; Beavers et al., 2013). Trial-based functional analysis (TBFA) has successfully addressed many of the limitations of SFA. TBFA is a trial-based procedure with each trial involving a brief test and control condition. Trials are embedded in typical routines in the natural setting such as classrooms or residential treatment facilities and often administered by those who regularly interact with the child. Within each segment of the trial, there is only one opportunity for the problem behavior to occur after which the trial is terminated. Thus, the opportunities to emit the problem behavior are limited to the number of trials administered. To discern the function of the problem behavior, the percentage of trials with problem behavior is calculated for each segment of the test and control trials and then compared.

In 1995, Sigafoos and Saggers were the first to examine a TBFA within a classroom setting. Teachers administered 20 discrete, 2-min trials, interspersed throughout the day and incorporated into the class routine. Each trial consisted of a 1-min
test segment in which the establishing operation and contingency for the problem behavior were present, followed by a 1-min control segment. These test and control segments were administered under three conditions: attention, demand, and tangible. If a TPB was emitted during the test segment the child received the putative reinforcer, the test segment ended, and the control segment began. If the TPB was emitted during the control segment, no consequences were provided and the trial was ended. Percentages of problem behaviors in test and corresponding control trials were compared. A social-positive function was identified for both participants, which provided a basis for intervention selection. Although results demonstrate this may be a useful alternative FA methodology, findings are limited in that an assessment of the automatic function was not included, no comparison was made to SFA-identified functions of the TPB, and no function-based interventions were studied.

Kodak and colleagues (2013) examined a discrete trial procedure, where a member of the classroom staff embedded 30s test and control trials in ongoing classroom routines. Although the trials were short, making the assessment very brief, additional administrators were needed to collect child behavior data and signal to the administrator when to change between trial conditions. Limitations were similar to Sigafoos and Saggers (1995) in that this procedure allowed for the identification of social functions, but automatic reinforcement was not tested for, which may explain the brevity of the assessment. In addition, procedural fidelity, validity in comparison to SFA, and efficacy of treatments based on results were not examined, limiting the external validity of results.

The viability of TBFA assessment procedures has been studied by examining the
correspondence of TBFA results to those of a SFA. LaRue et al., (2010) administered a modified TBFA similar to Sigafoos and Saggers (1995). A 2-min ignore trial was included but specifics for how to determine an automatic function were not specified. When TBFA outcomes were compared to SFA outcomes, results corresponded in 4/5 cases. In addition, it took less time to conduct the TBFA. In a study by Bloom, Iwata, Fritz, Roscoe, and Carreau (2011), graduate researchers implemented modified TBFA procedures in a special education setting and compared the identified functions to those determined by a SFA. The duration of the trials was extended to 6 min (2 min of each segment: control, test, control) in order to examine order effects. Findings suggest that the control-test sequence may be preferable in order to limit carry-over effects. In addition, a test for automatic reinforcement (ignore condition) was included, consisting of two 2-min test segments where problem behavior was ignored and did not end the test segments. In this study, researchers determined an automatic function by presence of problem behavior across both segments. TBFA outcomes corresponded with SFA for six of ten participants and in eight of ten participants once minor procedural modifications were made to control for participant specific idiosyncratic variables. This suggests that TBFA may be a viable alternative for determining the function of problem behavior when it is not feasible to conduct a SFA. A systematic literature review of TBFAs found that putative reinforcers were identified for 97% of all participants and for the subset that compared outcomes to SFA findings, a majority of the identified functions were in agreement (Rispoli, Ninci, Neely, & Zaini, 2014). TBFAs administered by staff in natural settings have also been shown to guide intervention plans that effectively reduce the TPB
(e.g., Austin, Groves, Reynish, & Francis, 2015; Bloom, Lambert, Dayton, & Samaha, 2013; Lambert, Bloom, & Irvin, 2012; Sigafoos & Meikle, 1996), validating their use as a meaningful assessment tool.
Chapter 2
FUNCTIONAL ANALYSIS TRAINING

Several studies have evaluated Behavioral Skills Training (BST), a multi-component training program including some form of didactic training (e.g., reading a methods section of a published article, instruction in a group workshop), modeling, rehearsal, and corrective feedback. Findings indicate that individuals with limited knowledge of ABA or FA can be trained in brief periods to administer SFA sessions with procedural fidelity (Iwata et al., 2000; Wallace, Doney, Mintz-Resudek, & Tarbox, 2004; Phillips & Mudford, 2008). In a recent study, Lambert, Lloyd, Staubitz, Weaver, and Jennings (2014) further extended previous research by showing that a combination of group didactic training, small group video modeling, and individualized feedback on videos of participants’ own administration can result in procedural fidelity for behavior technicians with little experience conducting SFAs. Investigators also assessed the accuracy of data collected on the child’s behavior as well as graphing proficiency and interpretation skills, but found the training to be insufficient to teach these behaviors.

Component analyses have also been used to determine which of the aforementioned components constitute the most efficient treatment package and thus have more social validity. In a 2012 study by Ward-Homer and Sturmey, it was found that written instructions and rehearsal (with no additional information or feedback provided) were ineffective, while video modeling and feedback (i.e., practice with one-on-one corrective feedback) were. However, since instructions were always introduced
first, effects of modeling and feedback in isolation were not examined, nor was the necessity of the didactic component evaluated.

The aforementioned studies have examined procedural fidelity, however the administrators required guidance and monitoring from the researchers throughout the assessment. So, although administrator trainings were brief, these procedures did not result in notable time saving. Furthermore, additional trained researchers were needed to accurately measure child behavior and as a result the need for additional staff was not eliminated.

**TBFA Training**

Implementers from the client's natural environment have been trained to administer TBFA using a variety of training procedures, mostly with the use of an individual training format. Lambert et al., (2013) examined a train-the-trainer model in a residential treatment home where supervisors provided individual training to the house managers, which included: didactic information, procedural descriptions of the TBFA (as outlined in Bloom et al., 2011), modeling, description of administration and data collection procedures, and role play with corrective feedback. High procedural fidelity was achieved, although the isolated effects of this training package is unknown given additional one-on-one in situ corrective feedback that was provided during assessments.

An extension of this train-the-trainer model was examined using a modified pyramidal training model. Five coordinators were given a 2-hr training involving didactic instruction regarding TBFA rationale and procedures, small group role-play with feedback, and individual test stations with delayed feedback. These coordinators then
taught 28 teachers individually using the same procedures. Training resulted in procedural fidelity, as well as accurate data collection, graphing, and analysis of child behavior data (Kunnavatana, Bloom, Samaha, Lignugaris-Kraft, Dayton, & Harris, 2013).

In the 2012 study by Lambert et al., a MA-level teacher who administered these analyses was trained by reading Bloom et al., (2011) and attending a 1-hr individual training session that included trial descriptions and role-play with corrective feedback until 100% procedural fidelity was obtained. This brief and highly effective training consisting of solely the didactic and rehearsal with feedback components of BST led to high procedural fidelity during assessments and 100% reliability of data collection by the administrator. In an extension of this study, three special education preschool teachers were trained to administer TBFAs (Bloom, et al., 2013). Training included one-on-one review of procedures, data collection, and a question and answer session, as well as didactic instruction of TBFA rationale and procedures, modeling, rehearsal and corrective feedback with peers (personal communication, Bloom, 2014). One teacher also attended a 1-hour presentation that included descriptions of FA rationale and TBFA procedures. Trainings were brief, requiring on average 60 min. Teachers administered a TBFA with a preschool boy in their class, averaging 96% procedural fidelity. Results suggest that brief individual trainings of teachers may result in viable analyses. Findings were replicated and extended by Kunnavatana, Bloom, Samaha and Dayton (2013) who obtained procedural fidelity with four teachers who were trained via a 1-hr didactic group presentation including video modeling, small group role-play, and individual rehearsal with feedback. Researchers extended the literature, by including an in situ maintenance
condition one to three months after training, in which only one of the four teachers required additional training to regain accuracy.

The effect of a didactic training in isolation on participant fidelity was examined further in a group-training format with education graduate students using a 2.5-hr semi-automated, interactive didactic training presentation that included video modeling (Lambert et al., 2014). After individually reading TBFA rationale and written instructions, opportunities to practice assessment trials were assessed in a baseline condition, a group didactic training procedure was examined. Practice alone did not result in procedural fidelity. Although increasing trends were noted, no participants reached procedural fidelity across all four trial types after training. This study suggests that other components of BST (e.g., modeling, rehearsal, and feedback) may be critical for training practitioners in TBFA procedures and data collection.

**Performance Feedback**

The findings of the aforementioned studies are in line with studies on performance feedback (PFB). This research suggests that coaching and feedback procedures in isolation (i.e., no didactic content on ABA or behavioral rationale for the procedures) account for increases in procedural fidelity in a variety of behavior-analytic intervention and assessment procedures (Alvero, Bucklin & Austin, 2001; Brock & Carter, 2013). Modeling, rehearsal, and feedback resulted in correct implementation of incidental teaching procedures by caregivers (Hsieh, Wilder, & Abell, 2011). The combination of review of a written instructional checklist, modeling, and feedback was found to be effective for discrete trial instruction (LeBlanc, Ricciardi, & Luiselli, 2005).
Research on three-step prompting, a procedure integral to SFA and TBFA procedures, has also shown that training with written descriptions, modeling, role-play, and feedback resulted in procedural fidelity (Miles & Wilder, 2009; Tarbox, Wallace, Penrod & Tarbox, 2007).

Similarly, Lavie & Sturmey (2002) successfully trained assistant teachers to perform stimulus preference assessments using a training package with the following components: verbal review of the targeted skills determined via TA, presentation of a checklist of steps derived from the TA along with a verbal description of each skill, videotaped demonstration of assessment trials, and PFB after the participant performed the assessment. This training package differed from previous research in that a TA was used to define the checklist steps and guide procedural explanations. In these studies, the brief training consisting of no didactic instruction, other than trainer review of written scripts or TA steps, along with live modeling, and role-play with PFB has been shown to lead to procedural fidelity for SFA administration with educators who were trained individually (Moore, et al., 2002). These findings suggest that the didactic ABA and FA rationale component may not be necessary to obtain procedural fidelity in procedures similar to TBFA.

Another focus in PFB has been antecedent self-instruction packages (SIP). Graph and Carston (2012) examined SIP training components to teach preference assessment procedures to staff that included: article review (i.e., reviewing the methods section from previous research), enhanced written instructions (i.e., detailed data sheet and step-by-step instructions akin to a TA written in common language with diagrams), and an article
review plus data sheet from the enhanced written instructions. While article review, with or without the data sheets, did not lead to efficacy, the enhanced written instructions with the data sheets led to mastery of the assessment procedures. Shapiro, Kazemi, Pogosjana, Rios, and Mendoza (2016) replicated and extended these findings with individuals with no ABA background and limited experience implementing behavioral interventions using an identical self-instruction package. Most participants obtained mastery with the SIP, and, when SIP alone was not effective, a brief additional modeling plus feedback session facilitated mastery. Additionally, examination of the consequential training components suggested that feedback (without modeling) was sufficient to produce mastery.

Analogous to research on BST treatment packages, PFB research in the field of organizational behavior management (OBM) has examined PFB treatment packages that include a combination of antecedent and consequence-based interventions. Research has shown that PFB interventions can effectively increase targeted employee behaviors. Antecedent interventions examined have included goal-setting, task clarification (TC), job aids, modeling, and reviewing definitions, examples and scripts. Consequential interventions investigated include modeling, feedback on previous performance with suggestions for strategies to improve future performance, reinforcement, and self-monitoring using enhanced written instructions, TAs, checklists, scripts, and posted job aids. A variety of discrete vocational tasks have been examined, such as following simple office protocols (Tittelbach, Deangelis, Sturmey & Alvero, 2007), telephone service in a medical clinic (Slowiak, Madden & Mathews, 2006), customer service behaviors such as greetings (Austin, Olson, & Wellisley, 2001; Rice, Austin, & Gravina,
and cleaning work areas (Rose & Ludwig, 2009), and busing tables (Amigo, Smith & Ludwig, 2008). More complex, multi-step, scripted behaviors have also been studied, including the hands-free technique during surgical procedures (Cunnigham & Austin, 2007), equipment preparation at a physical therapy clinic (Gravina, VanWagner, & Austin, 2008), and closing procedures for grocery store departments (Shier, Rae & Austin, 2003).

The efficacy of enhanced written instruction, TC based on a TA, modeling and rehearsal with feedback in isolation, have also been a focus of previous research on PFB in OBM. TC provides trainees with a clear explanation of performance, most often in the form of a checklist (Mirman, 1982). Crowell and colleagues add that TC includes a "precise specification of behavioral components of a job" (Crowell, Anderson, Abel, & Sergio, 1988, p. 65). Since TC outlines performance criteria, Gravina and colleagues (2008) state that TC may be an essential component of effective training. Further, similar to research that has isolated the instructional component of BST, studies evaluating the isolated effects of TC found that TC alone resulted in low to moderate fidelity (e.g., Squires et al. 2007; Anderson, Crowell, Hantula, & Siroky, 1988; Wilson, Boni, & Hogg, 1997).

Based on previous research, it seems possible that PFB, with its focus on TC checklists and rehearsal with feedback, may be an effective and efficient method of training TBFA procedures. All previous studies that have examined the specific BST components needed to produce mastery in TBFA/SFA have used the instructions from the Bloom et al. (2011) article, and have repeatedly shown that this alone is ineffective in
training people to do TBFA/SFA. Since many people who we would like to be implementing TBFA are actually front line therapist, teachers, and parents, who have little to no ABA training, it may be more efficacious to use enhanced written instructions with minimal behavioral terminology as this has been shown to be efficacious in training staff to implement preference assessments. An examination of the efficacy of a self-review TC checklist based on a TA or enhanced written instructions in isolation may clarify the sufficient training components to produce accurate implementation and improve training efficiency.

Further development of effective TBFA training strategies might also be guided by the BST components found to be effective in training administrators in SFA procedures. Findings suggest that two training components, modeling and rehearsal with feedback (i.e., PFB), used in combination may result in procedural fidelity. Although individual and group didactic instruction has been shown to increase procedural fidelity, the necessity of the informational or didactic training component has not been determined. Examination of these training components for procedural fidelity as well as for teaching the skill of collecting reliable child behavior data seems prudent. As TBFA has been shown to be an effective tool in developing behavioral interventions, its expanded use in applied settings would be advantageous. It is critical, then, to develop training procedures for use by people who have not had direct training in ABA in order to identify factors that may compromise its effectiveness. Social validity for these training procedures may be supported by clarifying factors that may increase efficiency, such as
examining trainings in a group format and limiting the training to only the necessary components.

**Purpose of Study**

The purpose of this study was to assess the sufficiency of specific training components to determine what components were required to effectively train TBFA to individuals with little to no ABA background. As training efficiency and accuracy are paramount, procedural fidelity and reliability in data collection were examined. Training focused on use of task analysis data sheets akin to checklists used in TC, independent self-instruction and self-monitoring, and a small group training involving only procedural information presented in conventional language (i.e., no background in ABA or FA rationale provided). Individual corrective feedback was introduced for participants when the group training components were ineffective. Participants also assessed the social validity of the training.
Participants and Setting

Nine college students with no exposure to behavior analytic coursework participated in this study. In addition, participants had no prior training in FAs and only limited experience in behavior-analytic-based intervention services (less than 6 months). Only one participant (Participant 8) had previous training on collection of antecedent-behavior-consequence (ABC) data as part of her work history. College majors of the participants included psychology, environmental science, kinesiology, and speech/language pathology. Trainings in TBFA were recorded by video camera in a college classroom on the California State University, Sacramento (CSUS) campus, except for the final training (one-on-one PFB) that occurred, when necessary, in the same setting as the outcome assessments. Outcome measures were collected by video camera in a clinic space in the Psychology Department on the CSUS campus. Consent forms were provided to participants at the beginning of the study and debriefing forms were provided at the end of the study (see Appendix A).

Response Measures and Interobserver Agreement

To assess the effectiveness of training, outcome measures included procedural fidelity, accuracy of participant self-reported fidelity, and reliability of data collection on client TPB.
Procedural Fidelity

Participant procedural fidelity was assessed using checklists of procedural steps specific to each TBFA trial type, similar to those used by Lambert et al., (2013). A trained observer marked yes/no if the administrator provided the putative reinforcer during the Attention Test segment in a timely manner, for example, “If problem behavior occurs, make 10-30 s statements of concern or attention within 5 s of problem behavior” (see Appendix B). Specific TBFA task steps included (a) the presence of the putative reinforcer during the control segment and absence during the test segment, (b) correct contingent responses to TPB for control and test segments, (c) absence of inadvertent demands, and (d) presence of only the materials appropriate for each trial segment.

Participant procedural fidelity was calculated on 100% of all trials for each participant by dividing the number of correctly implemented steps (marked as ‘yes’) by the total number of steps on the TA (marked as either ‘yes’ or ‘no’) for each trial type, multiplied by 100 to obtain a percentage. A second independent observer collected interobserver agreement (IOA) data on participant procedural fidelity on 65% of trials across participants using the yes/no checklists specific to each TBFA condition. Agreements were defined as both the participant and the primary observer marking “yes” or “no” on a specific step listed on the TA, while disagreements were defined as mismatched yes/no ratings. IOA on participant procedural fidelity was calculated using the point-by-point method described above with agreements between the primary and secondary observers similarly defined. Percentage of agreement between the two observers averaged 91% across participants and trial types (range 78%–92%).
**Self-report of Fidelity**

Participants rated their procedural fidelity immediately upon completion of each trial in an effort to increase reliability of self-reporting. Participant self-ratings of fidelity were compared to ratings of an independently trained observer on 100% of trials. Reliability of participant self-reports of fidelity was calculated for each trial type using a point-by-point calculation. Agreements were defined as either both data collectors marking “yes” or both data collectors marking “no” for the same trial to indicate that fidelity occurred or did not occur, respectively (see Appendix B). The number of agreements were divided by the number of agreements plus disagreements and multiplied by 100 to obtain a percentage. The percentage of trials with accurate self-report of fidelity was 49% across all self-instruction conditions and 91% during assessments after Group PPB. Most participants consistently over-estimated their fidelity across experimental conditions, thus reliability of self-report only became more accurate when actual procedural fidelity increased toward mastery levels (see Table 1).

<table>
<thead>
<tr>
<th>Self-instruction Condition</th>
<th>PFB</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>TA</td>
</tr>
<tr>
<td>Average Participant Report of % Fidelity</td>
<td>n/a*</td>
</tr>
<tr>
<td>Average Observer Report of % Fidelity</td>
<td>41%</td>
</tr>
<tr>
<td>Average Participant Over-estimation of % Fidelity</td>
<td>n/a*</td>
</tr>
</tbody>
</table>

Table 1. Percentage fidelity as reported by participants and independent observer across training conditions. *Since AR Condition used standard TBFA data sheets that have a single yes/no check for procedural fidelity on the entire TBFA trial, no self-report percentage was obtained.
Reliability of Data Collection on Client TPB

The reliability of participant data collection on the occurrence of client TPB was also measured. For each TBFA trial administered, participants collected data on the occurrence of client TPB during the control and test segments of the trial during and/or immediately after completion of the trial (e.g., marked yes/no to the question: “Did the client engage in the targeted problem behavior during the control segment?” and “Did the client engage in the targeted problem behavior during the test segment?” (see Appendix B). A trained independent observer also rated the occurrence of client TPB for both the control and test segments across all four trial conditions for 100% of trials. Agreement was defined as both data collectors marking the same answer (“yes/no”) in response to the questions for both the test and control segments of the trial. Agreement with just one of the two segments was still marked as a disagreement for that trial. Reliability of participant data collection for the occurrence of client TPB was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplied by 100 to obtain a percentage.

A second independent observer rated participant reliability of client TPB data collection on 27% of trials across participants using the yes/no checklists specific to each TBFA condition. IOA on participant reliability of client TPB data collection was calculated as described above with agreements between the primary and secondary observers similarly defined. Percentage of agreement between the two independent observers averaged 91%.
Experimental Design

Training components were administered in a nonconcurrent multiple baseline across participants design (Kazdin, 2011). Assessment of dependent variables were made at several time points: after each self-instruction condition, after completion of the group PFB training, and, if the mastery criterion was not obtained, after individual corrective feedback. The mastery criteria were 100% fidelity and 100% reliability of data collection for each trial type. Participants were divided into three groups in order to evaluate various forms of written self-instruction: self-review of written instructions and a task analysis data sheet (Written Instruction plus Task Analysis Data Sheet [WI+TA] Condition); self-review of the Bloom et al., (2011) article (Article Review [AR] Condition), and self-review of a task analysis data sheet (TA Condition).

Procedures

Training conditions varied in duration, but the durations were predetermined. Since the materials in the WI+TA Condition had not been previously researched, the training duration was based on a sampling of three undergraduate research assistants with no background in functional analysis who were instructed to time how long it took for them to read and perform all the suggested practice activities in the WI+TA Condition packet. Durations, ranging from 30-45 minutes, guided the WI+TA Condition session duration: participants were given 45 minutes to study the packet and were asked to look it over for a minimum of 30 minutes. The same instructions were given to those who were assigned to the AR condition. In a similar manner, the duration for the TA Condition was set at 15 minutes.
In order to approximate naturalistic conditions where the TBF A administrator has some familiarity with the client being assessed and the topography of the TPB, all participants were given a written operational definition of the TPB and watched 1 min of videotape showing the adult confederate client enacting the TPB. When not observing the videotape, the participants had the opportunity to continue individually reviewing the assigned training materials. Also, nine 2" by 3" pictures of preferred items (e.g., highly preferred spinner toy, moderately preferred toy cars, and low preferred puzzle) were provided as props during all training conditions. Participants retained all training materials, notes, pen and highlighter throughout the training conditions. Each participant was alone at a student desk during self-instruction.

**WI+TA Condition**

Participants reviewed TA data sheets for each trial type that included: yes/no checklist of the step-by-step instructions for each trial type used for self-report of procedural fidelity; yes/no for the occurrence of client TPB during the control and test sections of the trial; specified locations to write the defined TPB, high-preferred toy to be used in tangible trials, moderately preferred toys to be used during the attention condition, and the task/demand to be used for escape trials (see Appendix B). In addition, participants received instructions and procedural information written in everyday language for each trial type, including suggested practice activities to review (e.g., use of timer, generating appropriate statements to use during the assessment, and noting appropriate materials to have in the environment; see Appendix C).
TA Condition

Participants were only provided the TA data sheet described above.

AR Condition

Participants were provided the Bloom et al., (2011) article with all methods highlighted and a standard TBFA data sheet (see Appendix B). Data collected on the standard TBFA sheet included: yes/no data for the occurrence of client TPB during the control segment of each trial as well as the test segment of each trial and, yes/no data for self-report of procedural fidelity for each assessment trial.

Group PFB Training - Rehearsal with Corrective Feedback (Group PFB)

Group PFB was procedurally similar to the condition in Bloom et al., (2013) with the exception that it was conducted in a small group format (e.g., two participants were trained at the same time), and procedures included just the procedural rehearsal (see Appendix D). No information was provided about ABA or the rationale underlying FA. Rehearsal with feedback involved having each participant follow the directions provided in the WI+TA Condition to role-play the scenarios with the trainer acting as a client while the remaining participant observed. In order to mimic training in an applied setting where the specifics of a client’s TPB or relevant demands are unique to that child and cannot be used for a general training, the small group training was implemented using a novel set of behaviors and demands. For example, instead of the confederate client enacting the TPB of self-injury, the trainer enacted the TPB of aggression during the group PFB training. Likewise, instead of the client enacting non-targeted problem behaviors of swiping and throwing items and negative statements, the non-target problem
behavior during training was client hair pulling. Additionally, the participant made
different task demands for the escape condition during the training trials. During
assessment trials the demand was to draw a shape or letter, while during training trials the
demand was to perform a simple motor movement (e.g., touch your nose). All
participants completed the data collection forms, including Yes/No ratings of procedural
fidelity steps, and Yes/No ratings of the occurrence of a client TPB during test and
control segments of the trials.

Participants administered each TBFA trial, and, if the participant performed all
the steps correctly, a brief description of the steps done correctly was made and the
participant did not participate in any PFB trials. If the participant made an error (e.g., did
not stop control segment within 5 s of TPB or responded to problem behaviors other than
the TPB), the trainer waited until the trial was completed and provided feedback (e.g.,
identified the error and described the correct procedure), modeled the correct procedure,
and provided the participant the opportunity to role-play the trial again. Feedback was
provided to the group regarding the administration and data collection. Group PFB
involved enactment of all four trial types, and exposure to scenarios that involved the
TPB being present and absent during both the control and test segments of each trial type.
Scenarios also included identifying failed trials, ignoring non-targeted problem behavior,
and three-step prompting (during Escape trials). The participant chosen to rehearse
and receive feedback first was randomly selected and then alternated on all trials
thereafter. Training was completed for each individual when they obtained the 100%
fidelity mastery criterion for each of the four trial types. Group PFB sessions took 1 ½ - 2 ½ hours to complete, averaging 2 hours over all.

**TBFA Assessment Trials: Procedural Fidelity and Client TPB Data Collection**

Participants retained all training materials, notes, pen and highlighter throughout the assessment trials, although only the current data sheet was required to be on their assigned clipboard and set nearby (e.g., on the table or in their lap). A file drawer of materials was located adjacent to a round child-size table (3’ in diameter), with two child-sized chairs available for the confederate client and participant (see Appendix E).

TBFA assessment trials were assessed in the same order as introduced in the self-review and group training materials: Attention, Tangible, Escape, then Ignore. Fidelity for each trial type was calculated individually. Each trial type, regardless of whether it reached the fidelity criterion of 100% during self-instruction conditions (i.e., AR, TA, WI+TA), was reassessed after Group PFB with the original TPB. In order to assess the participants' procedural fidelity, participants administered up to twelve TBFA trials immediately after the first self-instruction training session (TA & WI+TA conditions; i.e., up to three trials of each trial type). When a second self-instruction training condition was introduced (introduction of WI+TA after the AR or TA conditions), four to eight additional assessment trials were administered (i.e., one to two trials of each trial type).

**Individual Training and PFB During Assessment**

If the participant did not reach the 100% fidelity criterion required for mastery of a single trial of a particular TBFA trial type after Group PFB training, the final training component of one-on-one (1:1) PFB was introduced while in the assessment setting. The
trainer provided corrective feedback identical to the Group PFB procedures. The participant then re-administered the same non-mastered trial type. PFB was provided until the participant administered one trial of the targeted trial type with 100% fidelity.

Training and assessments occurred over a 4-8 hour period, across two sessions, including 10-15 minute breaks scheduled between study phases (e.g., after completion of each block of assigned assessment trials, halfway through, and at the end of Group PFB training). Participants were offered brief breaks away from the confederate client every two trials, in order to mimic the in situ TBFA procedures where assessment trials are typically interspersed with other activities. The experimenter put away all materials used in the previous trial and provided the data sheet for the next trial. All participants chose to stay at the table, engaging in activities such as having a drink, taking data, looking over or taking notes on the next procedure sheet before administration, and getting out appropriate materials.

Independent Variables and Procedural Integrity Measures

Confederate Client Training

A graduate researcher was trained in content similar to the adult confederate actor training in Lambert et al., (2014) (see Appendix F). The confederate was trained to emit six types of behaviors according to scripts for each of the four trial types. These included: the TPB, a non-targeted problem behavior, play (i.e., any appropriate, nondestructive use of objects), compliance with demands (i.e., completion of request prior to model or hand-over-hand prompting during three-step prompting procedure), noncompliance with demands (i.e., completion of request only after model or hand-over-hand prompting
During the three-step prompting procedure, and appropriate communication (e.g., asks for attention, tangible, or to be left alone in socially appropriate manner). During each trial, the confederate emitted all relevant responses as scripted for each trial type. Thus, each trial administration assessed all component skills of the TBFA procedure during either the test or control segments in a scripted order. Confederate fidelity to scripts was assessed, by scoring 'yes' if the confederate emitted a scripted response before emitting the TPB within the appropriate control or test segment, and 'no' if the confederate did not emit the scripted responses or emitted the TPB prematurely. Confederate procedural fidelity was scored by dividing the number of 'yes' scores by the number of 'yes' and 'no' scores for each trial, multiplied by 100 to obtain a percentage. Training was complete when the confederates could complete eight trials (two of each of the four trial types) with 100% fidelity to scripts.

When TBFA assessment trials were implemented after the introduction of each training condition, confederate client fidelity to script averaged 82% across participants, trial types and conditions. Confederate client fidelity varied by training condition (AR = 50%; TA = 75%; WI+TA = 91; Group PFB = 92%; One-on-one PFB = 90%). As was found by Lambert and colleagues (2014), the lowest fidelity occurred during the AR Condition (50% across trial types), as participants showed low fidelity to procedures and often advanced from the control to test trial segments before the client had the opportunity to engage in all relevant behaviors. This also occurred in this study in the TA condition, but not as frequently. A second independent observer rated participant procedural fidelity on 27% of trials across participants using the yes/no checklists.
specific to each TBFA condition. ICA on confederate client fidelity was calculated as described above with agreements between the primary and secondary observers similarly defined. Percentage of agreement between the two observers was 91%.

**Trial-Based Functional Analysis Teacher Training**

A graduate researcher with training and experience in TBFA was trained by the primary investigator to implement group PFB training components following a PFB training rubric (see Appendix D). Training included practice with the same written instruction materials presented during baseline self-instruction. Training included four tasks: identification of administration errors for each trial type, description of the errors, modeling correct administration, and providing an opportunity to practice with feedback. A trained independent observer collected yes/no data on the occurrence of each training task to assess procedural fidelity of the teacher’s implementation of group PFB. If the teacher did not complete all four PFB training tasks for an incorrectly administered step of the assessment procedure (identify, describe, model, and practice with feedback), the observer marked ‘no’ for that task and prompted the teacher to complete the omitted task(s). Teacher fidelity was calculated by dividing the number of ‘yes’ scores on the rubric, by the number of ‘yes’ and ‘no’ scores for each, multiplied by 100 to obtain a percentage. Group training with participants did not commence until after the trainer met procedural fidelity criterion of 100%.

The group teacher was also trained to provide individualized (one-on-one) corrective feedback across all four trial types using the same materials and procedural steps as the Group PFB training (see Appendix G). Teacher fidelity to the PFB training
rubric was assessed by a trained independent observer rating occurrence or nonoccurrence of the feedback tasks on a yes/no scale. If the teacher did not complete a feedback task, the observer marked ‘no’ for that task and prompted the teacher to complete the omitted task. Teacher fidelity was calculated as previously described and training continued until the teacher achieved 100% fidelity to the feedback procedures training rubric across a set of eight assessment trials - two trials of each type (see Appendix G).

When Group PFB was implemented, the teacher fidelity to the PFB script averaged 99% across trial types (98% Attention, 99% Tangible, 100% Escape, 99% Ignore). When implementing one-on-one PFB, the teacher fidelity to the PFB script averaged 100% across trial types (99% Attention, 100% Tangible, 100% Escape, 100% Ignore). Fidelity to the one-on-one PFB script was 100% for the 10 trials across all participants. A second independent observer rated teacher fidelity to the PFB script on 47% of trials across participants using the yes/no checklists specific to each TBFA condition. IOA on teacher fidelity to the PFB script was calculated as described above with agreements between the primary and secondary observers similarly defined. Percentage of agreement between the two observers averaged 93%.

Social Validity of Training Procedures

Self-report of participant opinions regarding the acceptability of training and assessment procedures were collected upon completion of participation using the Training Acceptability Rating Scale (TARS; Davis, Ramana, & Capponi, 1989; see Appendix H). Participants filled out a modified version of the TARS. This self-report
questionnaire consisted of 14 items assessing the acceptability of the training, including satisfaction, appropriateness, and social validity. Eleven of the TARS items were rated on a 4-point, bipolar Likert-type scale, ranging from "not at all" (1) to "a great deal" (4). Qualitative feedback was obtained via three open-ended questions. While the original format was preserved, individual items were modified to ensure relevance (i.e., Item 1 ["Did the training improve your understanding of <training topic>?"] was altered to include the topic of TBFAs). The TARS has construct and concurrent validity, as well as good test-retest reliability ($r = .83$) and internal consistency reliability ($\alpha = .99$).
Chapter 4

RESULTS

Fidelity to TBFA Trial Procedures

After exposure to the WI+TA Condition (i.e., before Group PFβ was introduced), 36% of the assessment trial types were mastered: three of nine participants obtained mastery for the Attention condition, two of nine participants obtained mastery in the Tangible, one of nine participants obtained mastery in the Escape condition, and seven of nine participants obtained mastery in the Ignore condition (see Figures, 1, 2, and 3). Variations in fidelity were noted with self-instruction history. With exposure to only the WI+TA Condition, all three participants (P1-P3) obtained mastery of the Ignore trial condition, and one participant obtained mastery of the Attention and Escape trial conditions (P3: see Figure 1). Fidelity scores often approached mastery and were consistent with repeated assessment during the WI+TA Condition.

With exposure to only the TA Condition, Participant 6 obtained mastery of the Ignore trial condition, and approached mastery of the Escape trial condition. Fidelity scores were inconsistent and varied with repeated assessment during the TA Condition. With the additional introduction of the WI+TA Condition, two participants obtained mastery of the Ignore trial condition (P5 and P6, see Figure 2). While fidelity scores became more consistent with repeated assessment during the WI+TA Condition, the scores continued to vary widely across participants.
With exposure to only the AR condition, participants' procedural fidelity was low with a mix of increasing and decreasing trends. Participant 9 in the AR condition was able to master implementation of the Ignore condition, with a second approaching mastery. The subsequent introduction of the WI+TA condition resulted in mastery of the Ignore trial condition for all three participants. Furthermore, Participants 8 and 9 obtained mastery of the Attention trial condition, and Participants 7 and 8 obtained mastery of the Tangible (see Figure 3). Most initial low to moderate fidelity scores increased when the assessment trial was repeated during the WI+TA Condition.
Figure 1. Procedural fidelity data for participants 1, 2, and 3 across training phases: WI+TA condition.
Figure 2. Procedural fidelity data for participants 4, 5, and 6 across training phases: TA then WI+TA conditions.
Figure 3. Procedural fidelity data for participants 7, 8 and 9 across training phases: AR then WI+TA conditions.
**Group PFB Training**

During Group PFB, each participant obtained mastery of all four assessment trial types within six trials (average 2.4 total trials, range 0-6). There were no differences in the average number of Group PFB trials needed to obtain mastery based on previous exposure to self-instruction conditions (WI+TA: 2.3 trials, range 1-5; TA then WI+TA: 2.7 trials, range 2-3; AR then WI+TA: 2.3, range 0-6). The average number of Group PFB trials to obtain mastery varied slightly by trial type, ranging from .1 with ignore to 1.1 with attention. (see Table 2). Since trials were always taught and assessed in the same order, the number of trials to obtain mastery for different trial types may not be a function of the trial type itself, but could be impacted by the order of trial presentation. There was no notable difference in the number of Group PFB trials to obtain mastery for participants who were the first to be assessed for a trial type (i.e., went first) versus those who were able to observe their peer rehearse and obtain feedback for a trial type prior to their own assessment trial of that same trial type (i.e., went second). These results suggest that observing feedback given to another participant and providing feedback on someone else's performance via the TA checklist of another's performance did not improve participant procedural fidelity.
An average of one individual (i.e., one-on-one) feedback trial was required to obtain mastery per participant (SD = 1; range 0-3) when TBFA administration skills were assessed with confederate clients (see Figure 4). In examining each trial type, slight variations in additional trials to mastery were noted. The Ignore condition required no additional group training trials across participants while two participants required 1-2 group training trials in the Attention condition and in the Escape condition. Three participants required 1-2 training group PFB trials in the Tangible condition.

An examination of previous exposure to self-instruction conditions revealed that two participants in the WI+TA condition (P2 and P3), and one participant in the TA then WI+TA condition (P4) obtained mastery after Group PFB. Additional one-on-one PFB trials were introduced for the six remaining participants who did not obtain mastery with Group PFB. An increasing number of one-on-one trials needed to obtain mastery was observed when analyzing participants by their assigned training packages prior to group training. Only one additional 1:1 PFB trial was required for one of the three participants who only experienced the WI+TA condition to obtain mastery (P1). One to two trials of

<table>
<thead>
<tr>
<th></th>
<th>Attention</th>
<th>Tangible</th>
<th>Demand</th>
<th>Ignore</th>
</tr>
</thead>
<tbody>
<tr>
<td># Trials by Order</td>
<td>1st</td>
<td>2nd</td>
<td>1st</td>
<td>2nd</td>
</tr>
<tr>
<td>Average</td>
<td>1.0</td>
<td>1.2</td>
<td>.4</td>
<td>.8</td>
</tr>
<tr>
<td>Average # Trials</td>
<td>1.1</td>
<td>.6</td>
<td>7</td>
<td>.1</td>
</tr>
</tbody>
</table>

Table 2. Average number of PFB trials to obtain mastery by trial type and order of assessment during Group PFB training.
1:1 PFB were required by two of the three participants who experienced the TA then WI+TA condition, but all three participants who experienced the AR then WI+TA condition required one to three trials of 1:1 PFB to obtain mastery.

Figure 4. Tally of number of one-on-one PFB trials for each participant to obtain 100% mastery after Group PFB training.

Reliability of Client TPB Data Collection

General increases in participant reliability of client TPB data collection were noted as interventions were introduced. Reliability of data collection across experimental conditions was as follows: AR Condition, 70% (14/20 trials); TA Condition, 67% (16/24 trials); WI+TA Condition, 81% (55/68 trials); Group PFB, 97% (35/36 trials); One-on-one PFB, 100% (11/11 trials). The largest gains in reliability of TPB data collection were obtained after the introduction of the WI+TA Condition and Group PFB, with average increases across participants and trial types of 18% and 15%, respectively. Accurate identification of the presence or absence of TPB preceded procedural fidelity, as reliability of client TPB was slightly higher than procedural fidelity across all conditions.
Social Validity of Training Procedures

**Number of One-on-one PFB Trials**

The number of one-on-one PFB trials required for each participant to obtain mastery after group training was completed was one aspect of social validity assessed. Since Group PFB used a different confederate client enacting different TPB and non-targeted problem behaviors in a different setting, this group training may have mimicked how therapists are trained by a supervisor in an office setting, following which they implement assessments under the supervision of a BCBA with a client exhibiting different problem behaviors operationally defined specifically for that individual. If a training procedure requires extensive additional training for mastery with novel clients and behaviors, a high number of additional training trials may be an indicator of low social validity. In the current study, an average of one one-on-one PFB trial was required to obtain mastery per participant (SD = 1; range 0-3, see Figure 4).

**TARS Scores**

Participant ratings of the acceptability of the TBFA training was also assessed using a modified version of the TARS (Davis et al., 1989). Participants reported very high levels of training acceptability, with 100% of respondents (n = 9) rating their perception of the following aspects of training as either ‘quite a lot’ or ‘a great deal’ (scores of 3 or 4, respectively): overall training satisfaction, improved understanding of TBFA, completeness of topic coverage, helped develop skills to administer TBFA, increased confidence in administering TBFA, expected information to be helpful if asked in the future to assess problem behavior, trainer competence, trainer related well to group,
and trainer was motivating (see Table 3). While a majority of participants rated the effectiveness of self-review of the WI+TA Condition materials for training TBF A as either "quite a lot" or "a great deal," Participants 1 and 2 rated the effectiveness of this training component as "not at all" or "a little" (scores of 1 or 2, respectively). Almost all participants stated that their perception of the effectiveness of the Group PFB was "a great deal," while Participant 1 rated effectiveness as "a little" (scale score of 2).

<table>
<thead>
<tr>
<th>TARS Item</th>
<th>4: A great deal</th>
<th>3: Quite a lot</th>
<th>2: A little</th>
<th>1: Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improved Understanding</td>
<td>6 (67%)</td>
<td>3 (33%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Helped develop skills</td>
<td>5 (56%)</td>
<td>4 (44%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Increased confidence in skills</td>
<td>7 (78%)</td>
<td>2 (22%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Expect training to be useful if asked to assess problem behavior</td>
<td>5 (56%)</td>
<td>4 (44%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Facilitator competence</td>
<td>9 (100%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Overall training satisfaction</td>
<td>5 (56%)</td>
<td>4 (44%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. Completeness of topics covered</td>
<td>9 (100%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Facilitator related well to group</td>
<td>8 (89%)</td>
<td>1 (11%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. Facilitator motivating</td>
<td>9 (100%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. Effectiveness of reading information packet with data sheet</td>
<td>4 (44%)</td>
<td>3 (33%)</td>
<td>1 (11%)</td>
<td>1 (11%)</td>
</tr>
<tr>
<td>11. Effectiveness of small group performance feedback</td>
<td>8 (89%)</td>
<td>0</td>
<td>1 (11%)</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3. Frequency (and percentages) of participant ratings on TARS Likert scale items (n = 9).

The following common themes were identified in qualitative feedback when participants were asked to list the one or two most helpful aspects of training: the group training in general (n = 3), receiving feedback during the group training (n = 6), and watching another participant administer TBF A trials and receiving feedback during the group training (n = 5). Participant statements included: "I liked how I was able to watch
someone go before me and also that I could get feedback on what I was doing wrong;"

"Getting to observe someone else asking questions about misunderstandings/clarifying;"

"It was very helpful to watch it be run then to run it in order to see what steps looked
like;" "The small group feedback and watching another girl do her training." Almost
every participant wrote that the group training or an aspect of the group training was most
helpful, while one participant made a general statement that the "Trainer were [sic]
understanding and helpful." Additionally, one participant stated that the TA data sheet
was helpful, writing "The listed steps to follow being told feedback after I tried it myself"
(was most helpful).
In summary, in accordance with previous research, didactic instruction with behavior analytic terminology and a standard TBFA data sheet, used in the AR condition, was ineffective in training TBFA assessment procedures (e.g., Lambert et al., 2013). Predominantly low to moderate fidelity scores, idiosyncratic trends across participants, and inconsistent scores across trial types, replicates previous findings and suggests that the training materials used in the AR condition did not lead to accurate assessment administration. In contrast, participants initially exposed to the WI+TA Condition obtained mastery on one-third of all trial types, and even for those trial types that did not meet mastery criterion, fidelity was relatively high and stable. The high and stable fidelity observed in the WI+TA Condition, contradicts previous findings that suggest written information in isolation is an ineffective training procedure. It should be noted however, that the content of the written training materials used in the TA and WI+TA conditions were substantially different from previous research, and these differences may account for the increased fidelity.

Written materials for TA and WI+TA conditions were provided in common language and also included specific examples of appropriate and inappropriate responses to client behavior and suggested practice activities using the props and data sheets that were provided (see Appendix C.) Allen and Warzak (2002) note that, when paraprofessionals with little to no experience in ABA are instructed in behavioral
procedures, their conventional rules may be so discriminable from behaviorally worded rules that their rule-following behavior may not generalize to these behavioral assessment procedures, leading to poor procedural adherence. In addition, adults have a long history of rule-governed behavior and these rules may result in insensitivity to new contingencies (Catania, 1998). This may have accounted for the poor fidelity observed in the AR Condition. When the WI+TA Condition was subsequently introduced to those participants first exposed to the AR Condition, participants made notable gains in their administration fidelity. But still required more 1:1 PFB trials than with any other combination of self-instruction conditions.

Lastly, with the more detailed TA used in this study, the percentage of trials with fidelity was slightly greater overall in comparison to the AR Condition. Once the written instruction component was introduced in combination with the TA, fidelity further increased for almost all trial types across participants. It is possible that, while the TA prompts self-monitoring during administration of the TBFA, the written instructions provided more complete instructions needed for accurate implementation. In other words, the written instructions provided the participants with sufficient information to respond to the prompts provided by the TA. Anecdotally, it should be noted that all participants were actively engaged with the written materials across training conditions, as evidenced by all participants being observed to be reading and writing on the materials. Active engagement with materials was further supported by observations of the materials being extensively marked when collected at the end of the study. Thus, participant performance
across the experimental written self-instruction conditions was not likely confounded by inattention to the training materials.

**Group PFB**

Research suggests that high levels of TBFA administration fidelity can be established with BST training packages (Kunnavatanna et al., 2013; Lambert et al., 2013). When participants in this study with previous written self-instruction entered small group training, they quickly obtained mastery of all administration skills and data collection across trial types with the application of only PFB. The effectiveness of feedback was reflected in the rapid increase to mastery. Furthermore, the necessity of PFB was reflected in the observation that a couple of participants who had met mastery criteria before group training for a trial type, subsequently made errors during the Group PFB. This was expected since the PFB training scripts included a greater variety of examples than could be introduced in the written materials, such that the participant could contact a greater range of client behavior and potential applied scenarios.

No increases in administration fidelity were found for those who watched a peer administer a trial first and receive feedback from the trainer. This was true even though participants were actively watching the modeling as reflected in accurate ratings of the peer's administration fidelity during the peer-administered trials. However, examination of the impact of modeling may be complicated by another variable, namely that many times the peer model correctly implemented the trial. This resulted in no specific contrasts of correct versus incorrect being identified by the trainer, nor were the additional steps of description, modeling, and practice with feedback enacted. The
observation that feedback on the same assessment behavior of a model, in vivo, immediately prior to one's own assessment had no impact on fidelity, suggests that acquisition of new assessment skills may rely on contingent reinforcement of one's own behavior. Alternately, the model may need to enact incorrect behavior and be taken through PFB steps, such that the consequence of incorrect administration is also modeled. This may lend insight into the low administration fidelity obtained with trainees using video modeling, as the modeling may need to also show consequences. Alternatively, trainees may require feedback that is contingent upon their own self-prompting behavior.

The order of the trial types was always the same, with attention always administered first, then tangible, escape, and ignore. Although using the same trial order may complicate interpretation, it appeared to provide predictability and allowed the instructions to build on skills introduced in previous trial types. The attention trial introduced skills that are used in the other trial types (appropriate verbal behavior, contingent application of consequences). Tangible, a trial type not as often administered in applied settings, introduced an additional prop into the training. Escape trials incorporated an additional skill, three-step prompting, into the trial. Ignore trials were different as they had no control segment and never varied by client behavior and were introduced last as a distinct variation of trial type. Although this order of administration may be a limitation of the study, it resulted in a low number of training trials in Group PFB across the trial types, suggesting that a predetermined order of trial types may facilitate acquisition and should be examined in future research.
One-on-one PFB Trials

As one-on-one PFB in vivo requires substantial staff resources, limiting the number of trials to be trained in this manner may be particularly important to those training staff to work in applied settings. Bloom and colleagues (personal communication, 2014) and Lambert and colleagues (2013) suggest that supervision by a BCBA or others with Master's level training and familiarity with TBFA administration is imperative in order to confirm that the operational definition of the TPB is accurate and confirm that contingencies are in place across trial types in the specific assessment environment. This necessitates overlaps with assessment staff for the first trial of each trial type. For such recommendations to be implemented in an efficient manner, training that readily generalizes to applied settings is necessary. It should be noted that the highest number of additional one-on-one trials to obtain mastery after group PFB was required by those whose training history included the AR Condition. This indicates that a less formalized, more common description of what behaviors to engage in to master the TBFA trials may prove most beneficial. If the goal is to provide effective training to frontline personnel who would benefit from the use TBFA methodology, then adapting training to the audience seems reasonable.

In this study, it was anecdotally observed that the number of times the participant was exposed to the written instructions was much less than the number of exposures to the TA. The participants were regularly required to complete self-report of the steps on the TA and were reminded to prepare for the next assessment trial which involved filling in the TA with appropriate information. During administration, the participants often
skimmed through the TA rather than the written instructions, possibly because it was less effortful. Therefore, participants in this study, when provided with a TA, may have contacted the instructions more often in both an antecedent and consequential manner than those who received only written instructions in prior studies. The limited need for one-on-one PFB trials after Group PFB training suggests that the outcomes of this training align with the needs of providers in applied setting to produce efficient training procedures.

Small group PFB took, on average, 2-hrs for two participants, which is similar in duration to the 1-2½ hours one-on-one trainings previously examined with teachers (Bloom et al., 2011; Bloom et al., 2013; Kunnavatana et al., 2013; Lambert et al., 2012). However, findings suggest that self-instruction with written materials in layman’s terms, combined with use of a TA data sheet, can be completed without supervision. This would allot more supervisory time for practice and feedback small group PFB trainings. It may not be necessary to monitor self-study or to provide this type of information in a group-training format (i.e., lecture), further increasing efficiency of training.

One benefit to training participants in pairs was that it was perceived by all to be very beneficial. One of the most common qualitative remarks about what was best about the training was being able to watch a peer perform the assessment and get feedback. Even though perception was very positive, no increases in fidelity were noted when participants watched a peer model the assessment, as discussed previously. Dyad training, though, may increase acceptability by trainees and may be preferable for trainers who
wish to instruct a client’s team or a student’s teacher and paraprofessional in the same training.

**Limitations and Future Directions**

Limiting the current study is the fact that conditions did not discern the role of written materials in laymen’s terms in isolation, as it was always paired with the TA for data collection. Future research should examine the effects of the written instructions alone to parse out the added benefits of including a TA data sheet. Additionally, researchers could examine the AR Condition in combination with the TA Condition to parse out the roles of these two training components. Similar to TC research in PFB, future research should examine the use of the more detailed TAs in behavioral staff training, particularly for the implementation of other assessment and intervention procedures such as three-step prompting. If TAs alone prove as effective in training other ABA procedures as they were in training TBFAs in this study, their use is a simple and efficient method to teach skills vital to our field. Although the PFB examined in this study was efficacious, it included modeling and practice with feedback components. As previous research in preference assessment training suggests, feedback in isolation may be sufficient (Shapiro et al., 2016). Future research should examine the sufficiency of individual PFB components in order to further reduce the time required for training and increase dissemination of TBFAs procedures.

In addition, social validity was measured for the WI+TA SIP and PFB and findings suggested high rating of effectiveness for this training package. Future research might examine the social validity of the individual SIP (WI and TA) and PFB components.
(feedback, modeling, and practice), in order to compare the acceptability of the different treatment elements. Such information might be useful to those training TBFAs, especially if specific training components are found to not only be more effective, but also more socially valid. Finally, application of the most effective training package on a larger scale in order to more closely resemble trainings conducted by service providers and schools would be prudent. Replications with large groups of trainees that incorporate generalization measures in actual clinical settings and maintenance assessments after training has concluded would enhance the external validity of findings. Further examination of training entry-level therapists and paraprofessionals working in school, residential, and day-treatment settings should be a focus of future research to ensure training procedures are disseminated to applied settings where they would be most useful.
Appendix A

Consent Form – Adult Participants

Student Researcher: Jenifer N. Price, M.A. Candidate
Faculty Supervisor: Dr. Becky Penrod, Ph.D., BCBA-D.

I have been invited to participate in a research project entitled: “An Examination of the Sufficiency of Performance Feedback Training on Staff Implementation of Trial-Based Functional Analysis.” The purpose of this study is to evaluate procedures to train administration skills for a behavior assessment used with individuals exhibiting problem behaviors. In applied settings such as in early intervention and school settings, the findings from behavior assessments are used to guide behavior intervention plans to reduce problem behaviors that are interfering with a child’s ability to benefit from instruction. If I consent, I will be participating in the procedures described below.

At the start of the session, I will be asked to review written procedure and data sheets on my own for 45 minutes. After the self-training session, I will administer the behavior assessment to an adult volunteer. This assessment procedure will involve a total of no more than 45 minutes of interaction, as it will consist of 4-12 brief one- to four-minute interactions. I will have brief breaks every couple interactions and longer breaks every 20 minutes making the total duration of the assessment procedure be 45-90 minutes; this time will allow for breaks for me to write down the data/information I will be trained to collect and look over the written instructions between interactions. At a second session, I will have a small-group instruction training for 45-60 minutes. This will involve review of the self-instruction training materials, trainer modeling of the procedures and practice with corrective feedback with peers. Training will continue until all participants can accurately administer each portion of the procedures. I will then administer assessments with an adult volunteer. Assessments will continue for each portion of the assessment procedure until I obtain mastery or a total of 12 attempts, taking 45-90 minutes. If applicable, I will receive one-on-one feedback training until I obtain mastery for all procedures, taking 0-45 minutes. All training and assessment will occur at CSUS in classrooms and the Pediatric Behavior Laboratory. The study duration may be from 2-6 hours across 2 sessions (one for self-instruction and assessment, the second for group training, assessment and one-on-one feedback training).

I will receive experience in administering a behavioral procedure that can be used under BCBA supervision in intervention settings.

I have the right to refuse to participate and/or to quit at any time during the session without penalty. I may also ask for a break at any time during sessions and one will be given. If I say I want to quit, the session will be immediately terminated.
The primary risk associated with participation in this study is possible frustration that might occur during training or administration of the assessment. I might be unsure of how to do particular assessment procedures, or unsure of what information to write down on the data collection forms. As in all research, there may be unexpected risks to myself. However, these risks should be no different from those encountered in the typical academic environment. If an accidental injury occurs, appropriate emergency measure will be taken; however, no compensation or treatment will be made available to me.

All of the information collected in this study will remain confidential. That means that my name and/or any other identifying information will be omitted from all data collection forms and a code number will be attached. Only pseudonyms or participant code numbers will be used if the results are published in a scientific journal or reported at a professional meeting.

During the study, the researchers will videotape the sessions, if I give permission. These videos are to be used only for data collection, research assistant training, and professional presentations. These videos will be kept confidential. The videos will be stored on a password protected secure server. Only researchers involved in this project will have access to these videos and they will be destroyed at the completion of the study.

As mentioned earlier, I can refuse to participate without any penalty. Also, I may withdraw from this study at any time.

This information was explained to me by Jenifer Price. If I have any questions or concerns about this study, I may contact Jenifer Price at: [Contact Information]

My signature below indicates that I, [Name], give consent to participate in the previously described research project. Additionally, my signature indicates that I give consent to the researcher to collect demographic information.

______________________________  ______________________________
Participant Signature                      Date

Additionally, I give my permission for experimental sessions to be videotaped.

______________________________  ______________________________
Participant Signature                      Date

______________________________  ______________________________
Permission Obtained By                      Date
Debriefing Form

Purpose
The purpose of this study is to evaluate if those with limited experience with Applied Behavior Analysis (ABA) can learn to effectively administer Trial-Based Functional Analysis (TBFA) procedures without receiving lectures in ABA and while in a small group setting.

Hypothesis and Supporting Research.
Current research suggests that when entry-level interventionists are properly trained to conduct this behavior assessment, the findings can guide effective interventions for both typically developing children and children with special needs who exhibit problem behaviors that interfere with their ability to benefit from instruction (Austin et al., 2015; Bloom et al., 2013; Lambert et al., 2012). Trainings procedures have primarily been individual trainings and have shown that a training package called Behavior Skills Training - a combination of lecture, modeling, rehearsal and corrective feedback - has led to accurate administration (Bloom et al., 2013; Kunnavatanas et al., 2013; Lambert et al., 2013). As effective training is necessary in order to provide optimal training experiences for interventionists and the best use of time and resources for intervention providers, it is prudent to examine group training as well as determining which trainings are the most effective. This study omitted the lecture portion of the training, making the training be more in line with a Performance Feedback Model that focuses only on procedures, practice and corrective feedback (Alvero, Bucklin & Austin, 2001; Brock & Carter, 2013).

The Individuals with Disabilities Education Act Amendments mandate the use of functional behavior assessments based on empirical findings to guide Behavior Intervention Plans in the reduction of problem behaviors (IDEA, 1997, 20 U.S.C. § 1401). As research on TBFA has repeatedly shown it's efficacy, this study may support increased use of TBFA trainings in applied intervention settings, which may lead to more accurate assessment of problem behaviors and more effective behavior intervention plans and services.

Your Experience.
The interactions you had during this assessment training were contrived as it was necessary for the client to do all possible behaviors during each part of the assessment trial to make sure you, the trainee, could react to all possibilities.

You were exposed to a lot more problem behavior than is typical. A client does not engage in problem behaviors for every control & test portion of the assessment. In an actual assessment, you would administer 40 trials over the course of a couple weeks, but you would only come in contact with the problem behavior maybe 20% of the time. In contrast, during these training assessments, every single control and test segment you administered resulted in instances of both an untargeted problem behavior & a targeted problem behavior (100% of the time). The TBFA assessment is designed so that during the first control portion of the assessment the client pretty much has everything they want so problem behavior is rarely exhibited. The client typically exhibits problem behavior...
only when that behavior functions for them. So, if a client tantrums following task demands more often (say 8 of 10 trials), but rarely tantrums when attention is removed (say 2 of 10) or a toy is removed (say 0 of 10), one can determine that the function of the problem behavior is to escape demands — getting out of doing tasks is why the client tantrums. This is not readily reportable or observable in the natural environment — because in the real world environment, these variables are all jumbled together. Thus, this analysis has been designed to parse them out. A supervisor would then make an intervention plan to teach a more appropriate way to obtain escape from task demands — such as asking — and would make sure that that target problem behavior never results in the client escaping from a demand (so prompting like the prompts you learned to do). Once the appropriate behavior is strengthened, other behavioral techniques (schedules of reinforcement, fading and shaping) are used to make their new, more appropriate behavior function in the natural environment. On the other hand, if the tantrums were determined to always be used to obtain attention, the supervisor would make a plan that taught the child to more appropriately ask for attention — and make sure that the problem behavior never resulted in the client obtaining attention (so some form of time out or ignoring). These intervention plans are pretty much the opposites of one another: making sure someone does not escape a demand requires presentation of a lot of attention with a lot of prompting; but, making sure someone does not obtain attention may use time-out or active ignoring — and when you put a client in time-out or ignore them, they have very effectively escaped any sort of task demands. So this exemplifies the crux of the matter: one needs to know the function of the behavior in order to alter it and that's with this assessment achieves.

Contact information. If you would like further information about the study or have questions regarding the experiment, please contact Jenifer Price at [redacted] at your convenience. Thank you for participating.
Appendix B

Data Sheets
TA Data Collection Sheets: Attention, Escape Demand, Ignore, Tangible
Used for Training Conditions: TA, Written, Group PFB, One-on-one PFB
Used for DV data collection: fidelity, self-rating fidelity, client TPB & IOA

### Attention

<table>
<thead>
<tr>
<th>Participant #</th>
<th>Data</th>
<th>Trial #</th>
<th>Client Initials</th>
<th>Room</th>
<th>Participant Primary Reliability</th>
</tr>
</thead>
</table>

**Description of TPB:**

- **Moderately preferred toys used:** 

- **Segment:**
- **Control:**
  - Allow client access to moderately-preferred toys (And NO access to high-preferred toys)
  - Give the client attention at least every 7.5 s. & reply to all client bids for attention **SAY:**
  - DO NOT ask questions
  - DO NOT ask client to do/slow down
  - Ignore non-targeted PB
  - If TPB occurs, stop control segment within 5 s. of TPB
  - If no TPB occurs, stop control segment after 2 min. elapses

- **Data**
  - Did the client engage in the targeted problem behavior during control segment?

- **Test:**
- **Restart timer**
  - Say "I have work to do" or similar
  - Turn away from the client but stay close (approx. arm's length to the client)
  - Continue to allow client access to moderately-preferred toys (And NO access to high-preferred toys)
  - DO NOT ask questions
  - DO NOT ask client to do/slow down
  - Ignore all of the client's requests or bids for attention
  - Do not allow others in the environment to give attention
  - If TPB occurs, make 10-30 s. statements of concern or give attention within 5 s. of TPB
  - If no TPB occurs, stop test segment after 2 min. elapses

- **Data**
  - Did the client engage in the targeted problem behavior during test segment?

- **Data**
  - Did you complete all the steps correctly?

<table>
<thead>
<tr>
<th>Segment</th>
<th>Step</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
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</tbody>
</table>

Fill in answers on how you did each step:
- **Yes** — did step as described
- **No** — did not do step as described
- **NA** — had no opportunity to do step

When finished with trial, interact however you are comfortable or leave area as needed.
### Data

<table>
<thead>
<tr>
<th>Step</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give the client attention every 30 s. &amp; reply to all bids for attention: SAY:</td>
<td></td>
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<tr>
<td>DO NOT ask questions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO NOT ask client to do anything</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ignore non-targeted PB</td>
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<td></td>
<td></td>
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<tr>
<td>If no TPB occurs, stop control segment after 2 min. elapses</td>
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<td></td>
</tr>
<tr>
<td>If TPB occurs, stop control segment within 5 s. of TPB</td>
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</tr>
</tbody>
</table>

- Did the client engage in the targeted problem behavior during control segment?

### Data

- Did the client engage in the targeted problem behavior during test segment?
- Did you complete all the steps correctly?

Fill in answers on how you did each step:
- Yes — did step as described
- No — did not do step as described
- N/A — had no opportunity to do step

When finished with trial, interact however you are comfortable or leave area as needed.
**Escape**

<table>
<thead>
<tr>
<th>Participant #:</th>
<th>Date:</th>
<th>Trial #:</th>
<th>Client Initials:</th>
<th>Room:</th>
<th>Participant: Primary Reliability</th>
</tr>
</thead>
<tbody>
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</table>

**Description of TPB:**

**Task/Demand:**

- **Control Segment:**
  - Do not allow client access to moderately or highly preferred materials
  - Respond briefly and appropriately if the client initiates a conversation
  - DO NOT ask questions
  - DO NOT ask client to do/stop doing anything
  - Ignore non-targeted PB
  - If no TPB occurs, stop control segment after 2 min. elapsed
  - If TPB occurs, stop control segment within 5 s. of TPB

**Data:**

Did the client engage in the targeted problem behavior during control segment?

**Test:**

- Say “It’s time to work”
- Do not allow client access to moderately or highly preferred materials
- Ignore non-targeted PB
  - Do not talk when prompting except as specified, but respond briefly if the client initiates a conversation at any other time
  - Visualy prompt client to do task
  - Provide vocal + model prompt if client does not comply in 5 s.
  - Provide vocal + hand over hand assistance if client does not comply in 5 s.
  - If no TPB occurs, continue to provide prompts for task every 5 seconds after completion of the task for 2 min segment
  - If TPB occurs, stop any prompting, remove materials, and turn away. “Ok, you don’t have to.” within 5 s. of TPB

**Data:**

Did the client engage in the targeted problem behavior during test segment?

**Did you complete all the steps correctly?**

Fill in answers on how you did each step:

- Yes – did step as described
- No – did not do step as described
- N/A – had no opportunity to do step

When finished with trial, interact however you are comfortable or leave area as needed.
<table>
<thead>
<tr>
<th>Segment:</th>
<th>Step</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1:</td>
<td>Do not allow client access to moderately or highly preferred materials</td>
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<tr>
<td></td>
<td>DO NOT provide any attention to the client</td>
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<tr>
<td></td>
<td>DO NOT ask client to do or stop doing anything</td>
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<tr>
<td></td>
<td>Ignore any TPB</td>
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<tr>
<td></td>
<td>Ignore any non-targeted PB</td>
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<tr>
<td></td>
<td>Continue the segment for the full 2 minutes</td>
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</tr>
<tr>
<td>Data</td>
<td>Did the client engage in the targeted problem behavior during control segment?</td>
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<tr>
<td>Test 2:</td>
<td>Restart timer</td>
<td></td>
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<tr>
<td></td>
<td>Do not signal any change from Test 1 segment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do not allow client access to moderately or highly preferred materials</td>
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</tr>
<tr>
<td></td>
<td>DO NOT provide any attention to the client</td>
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<tr>
<td></td>
<td>DO NOT ask client to do or stop doing anything</td>
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<td></td>
<td>Ignore any TPB</td>
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<td></td>
<td>Ignore any non-targeted PB</td>
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<td></td>
<td>Continue the segment for the full 2 minutes</td>
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</tr>
<tr>
<td>Data</td>
<td>Did the client engage in the targeted problem behavior during test segment?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Did you complete all the steps correctly?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fill in answers on how you did each step:
Yes – did step as described
No – did not do step as described
N/A – had no opportunity to do step

When finished with trial, interact however you are comfortable or leave area as needed.
Standard TBFA data sheet for Attention, Tangible, Escape and Ignore:
(Lambert et al., 2014)

<table>
<thead>
<tr>
<th>Task</th>
<th>Data</th>
<th>Obs.</th>
<th>TR</th>
<th>Control</th>
<th>Test</th>
<th>Fail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Obs.</td>
<td>TR</td>
<td>Control</td>
<td>Test</td>
<td>Fail?</td>
<td></td>
</tr>
<tr>
<td>Fail?</td>
<td>Obs.</td>
<td>TR</td>
<td>Control</td>
<td>Test</td>
<td>Fail?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Data</th>
<th>Obs.</th>
<th>TR</th>
<th>Control</th>
<th>Test</th>
<th>Fail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Obs.</td>
<td>TR</td>
<td>Control</td>
<td>Test</td>
<td>Fail?</td>
<td></td>
</tr>
<tr>
<td>Fail?</td>
<td>Obs.</td>
<td>TR</td>
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Appendix C
Baseline Self-Instruction Materials

This first page to be Read to the Participant

Basic Instructions:
We will be training you to run assessment procedures with a client who engages in a problem behavior that interferes with his/her ability to learn. You will be controlling what is in the physical environment, how you act, and how you respond to the client’s behavior.

In order to examine the impact of different training procedures, we need to see how well you can initially conduct these assessment procedures - each type is called a trial - without direct training by us.

Here are the procedures sheets for the different ways to set up the environment and interact with the client. These sheets break down each part of the assessment procedures into steps.

It is important to adhere to these step-by-step instructions for each assessment trial as best you can. When the assessment procedures are done correctly, the information collected about the client will help an interventionist make a plan that will reduce the problem behavior and teach the client more appropriate behavior so they can better benefit from instruction.

The assessment procedure sheets have a lot of helpful information:
- what you do before the trial starts - like how to set up the environment
- how to act during each part of the assessment trial
- and what can go wrong to make it so that the assessment trial is not valid - or has failed

There are also data sheets where you are asked to determine if each part of the procedure was done correctly, or if the trial failed.

The procedure sheets also state how to collect data on the client’s behavior. During each part of the trial, you will note whether the client enacted the targeted problem behavior.

We need you to follow the steps as well as you can and fill out the information it asks of you as you administer each trial (or right after the trial is completed).

We are not able to give any extra information or feedback, but we will tell you which trial you will enact before you start so you know what procedures to follow, and give you breaks between trials so you can fill out the data sheets and review the procedures for the next trial.

You will have about 45 minutes to look over this information and practice on the practice data sheets before we show you the tapes of an adult volunteer enacting the problem behaviors. After that, we will have you administer these procedures with the client using these training sheets for reference and guidance."
Order of Participant Activities

First Session:

Self-instruction. You will use these instruction sheets to train yourself in this trial-based FA procedure.

Read and practice.

You will watch brief videos of the client you are assessing engaging in the targeted problem behavior.

Trial-based FA Assessment. Your ability to accurately administer the Trail-based FA will be assessed with adult client volunteers.

Collect data. You will collect information regarding your administration of each step of the assessment and the client’s behavior.

You will identify whether you did each part of the assessment correctly; if the condition was appropriately set up, then you will know that client’s behavior was actually assessed in that specific assessment condition. Was it done right or did you make an error?

You will collect data about whether or not the client exhibited the problem behavior.

Second Session:

Training. You will participate in a small-group training on this procedure.

Assessment. Your ability to accurately administer the Trail-based FA will be re-assessed with volunteers.

Collect Data. Exactly as done previously

Follow-up. If mastery is not obtained in administering the trail-based FA after group training, additional individualized training will be provided to each participant until mastery is obtained.

The next section of this instruction packet has:
more detailed instructions for the assessment procedures
the step-by-step Instructions/Data Sheets

You will want to refer to the detailed instructions between administrations of trials. Each one is stapled together and labeled.

The Instructions/Data Sheet will be used as:
instruction sheet as you administer the trial
data sheet to mark off that you did each step correctly or incorrectly
data sheet for presence/absence of client’s targeted PB for each part of the trial

Be kind. At no time do you respond with a negative tone of voice or show negative emotional expressions. Be clear and direct in your instructions and interactions.

<INSERT specific schedule for participant here>
**Trial-based FA Introduction – Overview (4 pages)**

Trial-based FA is a procedure to measure a client’s Targeted Problem Behavior (abbreviated as TPB) when put into 4 different circumstances or trials (called Attention, Tangible, Escape & Ignore).

Each trial type has distinct procedures to follow in order to administer the assessment correctly.

It is not an intervention or therapy.

The assessment involves being accurate and clear, but also kind, to the client.

Each trial has 2 segments, and each of these segments can last up to 2 minutes.

The first segment is called the ‘Control’ and the second part is called the ‘Test.’ Together, the control and test segments can last up to 4 minutes.

So, for the Attention trial, the procedures are broken down into 2 segments: Control for Attention and Test for Attention.

If no TPB (targeted problem behavior) occurs, each segment lasts 2 minutes and then we move on to the next segment.

But when a TPB occurs, the segment is cut short and we move immediately onto the next segment.

The duration of each segment depends on the client’s behavior.

If the TPB occurs right away, the segments can be very short.

Specifics for each trial type will be clarified.

You will be setting a timer to keep track of the trial lengths - but make sure to not set it to countdown to 0 or a beeper.

Stopwatches counting UP make the timing less obvious to the client and are easy to RESET at the start of each segment.

The general procedure is that you will sit with the client and interact with them as per the instructions for each type of trial.

Interactions involve asking NO questions unless instructed.

Although it seems fake, you can’t say ‘How’s it going?’ or ‘Whatcha doing?’ or ‘Do you like coloring?’ or ‘Don’t you like playing with that toy?’ or ‘Can I see?’

For many children with social and language delays these very questions are the skills they are trying to learn – they are demands to do something potentially difficult.

So, writing down some examples of nonquestions here and on the instruction sheet will be useful. These comments can be about anything the client has or is wearing or is doing or statements about your self.

“I like.” “You are...” “It looks like...” “I’m...”
Examples are: “That’s cool!” or “I like your lego shirt” “I like your coloring” “You’re making it pink.” “It looks like you are having fun playing with that toy” or “I like sunny days like today.”

WRITE some comments here - NO QUESTIONS:
3 things you can say to a client who is coloring:

3 things you can say to a client who is playing on iPad:

3 things you can say to a client who is playing with a doll or a car:

3 things you can say to a client no matter what they’re doing:

**Assessment is done in the Natural Environment**

Such as:

In the classroom:
- at work table during work time
- quiet time area
- snack table
- free time space during play time
- playground

At recreation or social programs:
- in play area
- at table
- at snack

At home:
- in living room
- in car
- in yard

The circumstances or trials are set up and run in various situations. The natural environment is often altered slightly to properly carry out the assessment. These alterations will be clarified for each trial type, and during this assessment, we will be available to help you set up the area (if you ask us we will move things around).
Definition of the Target Problem Behavior

These procedures will assess the presence or absence of a specified TPB (targeted problem behavior). For each client, the specified TPB has been targeted because it is interfering with the client's ability to benefit from instruction.

Problem behaviors vary greatly. Examples include:
- various types of tantrum behavior (from screaming and crying with tears, to flailing arms and legs, to falling limp to the floor and whining),
- repetitive behaviors (like flapping hands or body rocking)
- vocal protests (like yelling words or screeching),
- property destruction (ripping up worksheets to tipping over chairs)
- aggression or self-injury (hitting or pinching others or self).

The problem behaviors in this study are mild and do not involve harm to others. Neither you nor the adult volunteer will be harmed.

The client's specific TPB (targeted problem behavior) is defined below. After studying these procedure sheets you will watch video clips of the client you are assessing doing the targeted problem behavior across a variety of situations. The purpose of watching the videos is to familiarize you with what the TPB looks like so you will recognize the TPB when it occurs during the assessment.

A client may also do other behaviors that you may identify as problematic, but these other behaviors are not to influence your behavior during the assessment. Your assessment will focus only on the targeted TPB (targeted problem behavior).

Operational definition of TPB:

Self-injurious behavior: Any instance in which client's hand makes audible contact with any other part of his/her body from a distance of 6 inches or greater.
4 types of trials

Here are brief descriptions of the 4 trials that will be elaborated in the training packet:

Attention —
During the Control segment you give constant attention to the client while they are playing with toys they like. Then, during the Test segment, you say you’re busy and withdraw your attention. During the Test segment you then provide attention only when the TPB (targeted problem behavior) occurs. So, TPB results in getting attention.

Tangible —
During the Control segment you give them attention every once in a while you let the client play with toys they really like a lot. Then, during the Test segment, you remove the highly preferred toys and still give them some attention. During the Test segment you only give the toy back when the TPB occurs. So, TPB results in getting the tangible item back.

Escape —
During the Control segment the client is hanging out with nothing to do and you are mostly busy nearby the client. Then, during the Test segment, you have the client complete academic or similar tasks and help them by showing them how and/or guiding their hands through the movements. During the Test segment you only stop the task demands when the TPB occurs. So, TPB results in them escaping the work demands.

Ignore —
These trials are different — both of them are ‘Test’ trials where the client is hanging out with nothing to do and you completely ignore all behavior — both appropriate and TPB during the first 2 minutes AND during the second 2 minutes. The client has nothing to do and no one to get attention from regardless of their behavior.
Attention trial:

Attention Preparation before you start a trial:

• Review the Attention step-by-step Instructions/Data Sheet (one is attached to this packet)
• Write down at least 3 appropriate comments to make to the client on your data sheet (you will be making upwards of 24 comments to the client during an attention trial)
• This trial can be run anywhere – at a table, in a play area - and anytime attention is typically given – but only run at a time that the attention of others can also be controlled (i.e., not with peers around)
• Set up the area by removing all high-preferred items
• Have 1-3 appropriate moderately-preferred toys for the client to play with (these toys will be in labeled boxes available in the assessment area and were determined from a procedure called a preference assessment)
• Write the description of the TPB (targeted problem behavior) you are assessing on the data sheet
• Have your stopwatch ready to start an upward count to 2 minutes – off to the side

Attention Control segment (up to 2 minutes):

• Sit with the client and give the client at least one moderately-preferred toy
• Start the stopwatch
• Give the client continuous attention (vocal and occasional physical if appropriate) for the entire 2-minute segment. Vocal attention includes comments; physical attention includes pats on the back or a touch on the arm.
  No more than 10 seconds should lapse between interactions.
• Reply to all questions and bids for attention by the client.
• Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands) DON’T say: “Do you like…?”
  DO SAY: “I like…”
• Do NOT respond to – ignore - any problem behaviors that are not the one we are targeting (i.e., ignore flapping hands if TPB we are targeting is tantrums)
• DO NOT allow access to high-preferred items
• If TPB occurs, start the second segment within 5 s. (i.e. you don’t have to wait the whole 2 minutes to start the second segment)
  The TPB ends the control segment and is the cue to start the test segment.
• If TPB does not occur, stop control segment after 2 minutes has elapsed.
  Two minutes elapsing is the cue to start the test segment (if no TPB has occurred).
**Attention Test segment (up to 2 minutes):**

- Say to the client "I have some work to do" <This statement demarks the end of the control segment, and the beginning of the test segment>
- Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
- Reset the timer to count up to 2 minutes again
- Turn away from the client but stay close (arm’s length) to the client. Be busy with your clipboard and papers (maybe fill out the data or review the procedures on the data sheet)
- If the client moves away, try to casually maintain proximity
- Ignore all of the client’s requests or bids for attention. Make no change in your behavior whatsoever in response to client requests (i.e., don’t start humming, get more busy, don’t turn toward or further away from the client; no eye contact)
- If the client engages in the TPB, turn and face the client and deliver attention (vocal and physical) for about 10-30s. For example, touch the client’s arm and say calmly, “hey, why are you doing that?” and/or “you shouldn’t do that” and/or “let’s do this instead” Do this right away – within 5 seconds. TPB results in obtaining your attention
- TPB ends the test segment (i.e., you don’t have to wait the whole 2 minutes to end the trial).
- End the test segment after 2 minutes if no TPB occurs.
- Since the trial is over and you have not started another trial yet, you can interact normally with the client or you can step away.
- Complete all portions of data sheet that have not already been completed during the trial.
- Put the materials back in the box where they are stored

**Attention Failed trial:** If the client obtains attention during the test portion without enacting the TPB, the trial is failed. You can stop the test trial before 2 minutes if the trial fails (i.e., if you must block the client from leaving the room, she does something that you absolutely were not able to ignore, or another person comes and talks to the client, fill out the data sheet and state that the trial needs to be re-run).

**Attention Data Collection:**

- Complete the data sheet as you go and/or at the end of the trial.
  - Yes – you did the task as described
  - No – you did not do the task as described
  - N/A – no opportunity to do the task (i.e., mark N/A by ‘Ignored nontargeted PB’ if the client didn’t do another PB – so there was no opportunity
to ignore it; mark N/A by ‘If no PB occurs, continue test segment for 2 minutes’ if
a TPB DID occur and you therefore didn’t follow this step of the TA)

- Look over the instructions for the trial you just implemented and see if there are
any steps you missed

Attention – Practice procedures

Self-review checklist:

_____ Use of stopwatch. Setting watch and practicing resetting.

_____ Set up of space – what needs to be put away/what can stay

_____ Practice delivering attention using appropriate comments as per instructions (at
least once every 10 seconds).

Control segment

DON’T SAY
'Do you like that game?'
'How’s it going?'

DO SAY
'You’re playing angry birds. Cool,'
'Hey there!'

_____ Practice transition to Test segment.

_____ Practice delivering 10-30 seconds of attention if TPB occurs. Things I might say
or do after a client does PB:

_____ Practice filling out the data sheet
Tangible trials

Tangible Preparation before you start a trial:

- Review the Tangible step-by-step Instructions/Data Sheet
- Write down at least 1 appropriate comments to make to the client on your data sheet (you will be making upwards of 8 comments to the client during a tangible trial)
- Have 1-2 appropriate highly-preferred toys for the client to play with (these toys will be in labeled boxes available in the assessment area and were determined from a procedure called a preference assessment)
- This trial can be run anywhere you can control access to these items – at a table, in a quiet time area (where there aren’t a lot of preferred items), and anytime these items are typically available so if the tangible item is food, snack time
- Remove other medium preferred toys to make it easier to clear the area of toys during test segment (i.e., if iPad is highly preferred and coloring supplies are medium, put away the coloring supplies before you start so when the test segment starts you only need to remove the iPad to make the environment free from all high and medium preferred items)
- Review the description of the TPB (targeted problem behavior) you are assessing
- Have your stopwatch ready to start an upward count to 2 minutes – off to the side

Tangible Control segment (up to 2 minutes):

- Sit with the client and give them at least one highly-preferred toy. If they request any other available item, they may have access to it also
- Start the stopwatch
- Reply to all questions and bids for attention by the client. Make comments on the toy or the environment. Client should obtain attention at least every 30 seconds (that is 4 times if a segment lasts 2 minutes)
- Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
- Do NOT respond to – ignore - any problem behaviors that are not the one we are targeting (i.e., ignore yelling if TPB we are targeting is flapping hands)
- If TPB occurs, start the second segment within 5 seconds (i.e., you don’t have to wait the whole 2 minutes to start the second segment)
- If TPB does not occur, stop control segment after 2 minutes has elapsed.
  Two minutes elapsing is the cue to start the test segment (if no TPB has occurred).
Tangible Test segment (up to 2 minutes):

- Say to the client “My turn” “All done with ______” or similar <This statement demarks the end of the control segment, and the beginning of the test segment>
- Physically take the toy(s) away from the client (politely remove - if you have removed an iPad or similar, do not allow child to watch screen if it is in sight)
- Reset the timer to count up to 2 minutes again
- Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
- Continue to respond to the client if they talk to you or interact with you and make sure you continue to comment on the environment at least once every 30 seconds (i.e., if the client asks for the toy back, confirm you hear, state ‘not right now’ or ‘it’s still my turn’ etc.)
- If the client engages in the TPB, give the toy(s) back to the client. Do this right away – within 5 seconds.
- TPB results in access to the desired tangible item.
- TPB ends the test segment (i.e. you don’t have to wait the whole 2 minutes to end the trial).
- End the test segment after 2 minutes if no TPB occurs.
- Make sure the client gets to play with the toy(s) for at least 30 more seconds after the trial is over (i.e., don’t start another trial right away, give the client time to play with the toy)
- Complete all portions of data sheet that have not already been completed during the trial.
- Since the trial is over and you have not started another trial yet, you can interact normally with the client or you can step away.

Tangible Failed trial: If the client obtains preferred items during the test portion of the trial without enacting the TPB, the trial is failed. You can stop the trial if the trial fails (i.e., if the client manages to obtain a preferred item, you may fill out the data sheet and state that the trial needs to be re-run)

Tangible Data Collection:

- Complete the data sheet as you go and/or at the end of the trial.
  - Yes – you did the task as described
  - No – you did not do the task as described
  - N/A – no opportunity to do the task
  - Look over the instructions for the trial you just implemented and see if there are any steps you missed
Tangible -- Practice procedures

Self-review checklist:

_____ Use of stopwatch. Setting watch and practicing resetting.

_____ Set up of space -- what needs to be put away/what can stay.

_____ Practice delivering attention using appropriate comments as per instructions (at least once every 30 seconds).

Control segment

DON'T SAY                   DO SAY
'Do you like that game?'    'You're playing angry birds. Cool.'
'How's it going?'            'Hey there!'  

_____ Practice transition to Test segment.

_____ Practice giving client back toy if TPB occurs.

_____ Practice filling out the data sheet.
Escape trials

Escape Preparation before you start a trial:

- Review the Escape step-by-step Instructions/Data Sheet
- Review the 3 steps of the prompting sequence: vocal request, (5 s. pause), vocal request with model, (5 s. pause), & vocal request with hand-over-hand prompting to complete the task
- This is best run at a table or in a work area
- Remove any high or medium preferred materials from the area (unless they are needed to engage in the problem behavior – like paper, if the PB is ripping worksheets). Common items of little interest to the client can remain.
- Review the description of the TPB (targeted problem behavior) you are assessing
- Write in the task or demand you will be making (i.e., 'Write the letter E,' or 'copy me' and a list of motor actions – clapping, touching nose, arms up)
- Have your stopwatch ready to start an upward count to 2 minutes – off to the side

Escape Control segment (up to 2 minutes):

- The client has little to do during the control period – consider setting up a situation during the control segment where you remove the materials and the client is waiting for you to prepare the next activity
- Sit with/nearby the client but turn away from the client for the entire 2-minute control segment; busy yourself
- Start the stopwatch
- Respond briefly and appropriately if the client initiates a conversation (i.e., 'In a bit,' 'Hm,' 'I'm working."
- Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
- Do NOT respond to – ignore – any problem behaviors that are not the one we are targeting (i.e., ignore flapping hands if TPB we are targeting is tantrums)
- Do NOT allow access to highly or moderately preferred leisure materials (i.e., if a the client is trying to access a toy, put it away out of reach)
- If a client engages with low-preferred items or activities, such as twiddling a pencil or examining a poster on the wall, this is fine.
- If TPB occurs, start the second segment within 5 s. (i.e. you don’t have to wait the whole 2 minutes to start the second segment).
- If TPB ends the control segment and is the cue to start the test segment.
- If TPB does not occur, stop control segment after 2 minutes has elapsed. Two minutes elapsing is the cue to start the test segment (if no TPB has occurred).
Escape Test segment (up to 2 minutes):

- Clearly but politely say to the client “It’s time to work” <This statement demarks the end of the control segment, and the beginning of the test segment>
- Reset the timer to count up to 2 minutes again
- Do NOT allow access to highly or moderately preferred leisure materials
- Do NOT respond to – ignore - any problem behaviors that are not the one we are targeting (i.e., ignore flapping hands if TPB we are targeting is tantrums)
- Present materials for the task (for example, bring out a pencil to use on worksheet)
- State the task the client is to do in the form of a vocal prompt (i.e., say ‘Write the letter E.’). The task being used is chosen because it may have resulted in TPB in the past.
- If the client does the task, watch. When complete say nothing or something neutral (i.e., ‘ok’ or ‘hm’).
- Do NOT praise the client for doing the task (even though that is a typical response to completing work, no positive comments are used during this part of the assessment)
- After the task is complete, wait 5 seconds and REPEAT the task request (i.e., say “Write the letter E.”)
- If the client does not comply within 5 seconds (count silently in your head to 5 – one thousand 1, one thousand 2… - after the vocal prompt), continue on to the 2nd prompt level – a model prompt. Prompt again vocally and also model what you want the client to do (i.e., say “Write the letter E.” AND pick up your own pencil and write it on the paper saying “Like this.”). Then, count silently in your head to 5 again. (At this point the client has not done what you have asked for about 15 seconds since you first asked.)
- If the client does not comply within 5 seconds, continue to the final prompt level – physical hand-over-hand prompting. Prompt again vocally and also move the client’s hand through the motions (i.e., say “Write the letter E.” AND place your hand around the client’s hand and move her hand to pick up the pencil and write the letter on the paper).
- If the client resists or vocalizes but does NOT engage in the TPB, continue to physically guide the client to complete the task with minimal force. You may need to use two hands in order to guide the client through the action. For example, with writing - one hand may hold the client’s hand and the other may be more on the pencil to be able to guide it accurately without having to put too much pressure on the client’s hand. Once the demand to do the task is placed and the client is having your hand over her hand to do the movement, you do your best efforts to continually have the client do the task until it is complete (i.e., the letter E is written).
- Please be aware that you are NOT being put into a situation where you will
need to use any more physical force while hand-over-hand prompting than is typically used in a classroom situation to teach a new motor skill. But, you may be doing this physical prompting while the client is expressing (with vocal and motor behaviors) that they do not want to do the task.

- Do not speak while you are providing prompting other than the original vocal statement made ONCE at the beginning of each of the prompts.
- If the client starts to do the task on her own, you may remove your hand and watch while she completes the task (say nothing).
- When complete, say nothing or something neutral (i.e., 'ok,' ‘mmhm’).
- Respond briefly and appropriately if the client initiates a conversation when not being prompted.
- For the duration of the test segment, the client is either doing a task or being prompted to do a task every 5 seconds. The prompts always start as a verbal request, then verbal plus model, and then verbal with you helping hand-over-hand until the task is complete. If the client complies within 5 seconds of your first request each time, no other model or physical prompts are needed.
- If the client complies after you model, no additional physical prompt is needed.
- Once the client finishes the requested task, wait 5 seconds and start the request-to-do-a-task sequence again, starting again with the first verbal prompt (i.e., ‘Write the letter E’).
- Continue to deliver prompts for the entire 2-minute segment with 5 second breaks in between.
- If the TPB occurs, stop any prompting, remove the materials, and turn away. Say, “Ok, you don’t have to.” Do this right away — within 5 seconds. The TPB ends the test segment (i.e. you don’t have to wait the whole 2 minutes to end the trial). TPB results in the task demands being removed.
- The TPB may occur at any time — during the verbal request, the model, or the hand-over-hand — always stop prompting immediately. Immediately turn away, remove the materials and say “Ok, you don’t have to.”
- End the test segment after 2 minutes if no TPB occurs.
- Since the trial is over and you have not started another trial yet, you can interact normally with the client or you can step away.
- Complete all portions of data sheet that have not already been completed during the trial.
- Put materials back in the box where they are stored.

**Escape Failed trial:** If the client escapes the task demand without engaging in the TPB — or if she obtains preferred materials - the trial is failed. You can stop the trial if the trial fails (i.e., if the client gains access to a preferred toy or she engages in behaviors other than the TPB that keep you from keeping the task demand in place, you may fill out the data sheet and state that the trial needs to be re-run).
Data Collection:
- Complete the data sheet as you go and/or at the end of the trial.
  - Yes – you did the task as described
  - No – you did not do the task as described
  - N/A – no opportunity to do the task
- Look over the instructions for the trial you just implemented and see if there are any steps you missed

Escape - Practice procedures

Self-review checklist:

- Use of stopwatch - setting watch and practicing resetting
- Set up of space – what needs to be put away/what can stay
- Practice transition to Test segment ‘It’s time to work’ – get out additional materials
- Practice delivering the 3 different prompts with 5 sec delays:
  - vocal (silent count to 5 s. – one thousand one – one thousand two – one thousand three – one thousand four – one thousand five)
  - vocal + model (silent count to 5 s.)
  - vocal + hand-over-hand physical
- Practice what say when TPB occurs “Ok, You don’t have to” and remove materials and turn away
- Practice filling out the data sheet
Ignore trials
Ignore Preparation before you start a trial:
- Review the Ignore step-by-step Instructions/Data Sheet
- Remove any high or medium preferred materials from the area. Common items of little interest to children can remain.
- This is best run in an area where you can control access to items and attention – at a table, in a quiet time area or free time area (where there aren’t a lot of preferred items or peers around)
- Have your stopwatch ready to start an upward count to 2 minutes – off to the side
- This assessment will take a full 4 minutes
Ignore Test segment #1 (a full 2 minutes):
- Sit with/nearby the client but turn away from the client for the entire 2-minute control segment; busy yourself
- Start the stopwatch
- Ignore the client. Do NOT respond to client comments, questions, or bids for attention. No eye contact to client.
- Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
- Do NOT respond to – ignore - ALL problem behaviors
- Do NOT allow access to highly or moderately preferred leisure materials (i.e., if the client is trying to access a toy, put it away out of reach)
- If a client engages with low-preferred items or activities, such as twiddling a pencil or examining a poster on the wall, this is fine.
- Continue this first Test Segment for full 2 minutes regardless of client Behavior
Ignore Failed trial: If the client obtains preferred items or attention the trial is failed. You can stop the trial before 4 minutes if the trial fails (i.e., if you give the client attention by blocking the client from leaving the room, or a person comes in and talks to the client, you may fill out the data sheet and state that the trial needs to be re-run)
Ignore Data Collection:
- Complete the data sheet as you go and/or at the end of the trial.
  - Yes – you did the task as described
  - No – you did not do the task as described
  - N/A – no opportunity to do the task
- Look over the instructions for the trial you just implemented and see if there are any steps you missed
Ignore - Practice procedures
Self-review checklist:
  - Use of stopwatch. Setting watch and practicing resetting.
  - Set up of space – what needs to be put away/what can stay
  - Practice filling out the data sheet
Baseline Self-instruction Materials: Items

High Preferred

Medium preferred

Low preferred
Appendix D

Group Performance Feedback Training Rubric

Group training rubric – uses Baseline Self-instructions and Step-by-step Instruction Data Collection Sheets for each trial type (Based on Lambert et al., 2014)

Teacher will pair up with each participant. Each pair will enact a trial for the group. All participants and trainer will take data. If errors occurred in enactment, after trial is complete, trainer will model all correct steps (with participant acting as client) and then have the participant repeat the enactment. Teacher will review the data for the trial and have participants write correct data beside any errors.

With 2 participants, the minimum number of trials a participant will run per trial type is 1 (e.g., for attention a participant will run a trial with TPB in both control & test). The minimum number of trials data will be taken on per trial type by each participant is 2 (e.g., 1 trial of data when they enacted the trial and 1 for the other participant’s enactments of trials).

For each trial type, the trainer must do the following for each trial component done incorrectly:

1. Describe – refer to the descriptions from baseline self-instructions and show materials
2. Model Proc. - model the administration procedures and data collection using the forms
3. Model Data- have all participants collect data
4. Review accuracy of participant data collection
5. Participant enact in pair with teacher (with all participants collecting data)
6. Provide feedback and opportunity to re-enact as needed
7. Review accuracy of participant data collection

5-7 tasks are done on the participant data sheets and collected by the independent observer.
Group Training Rubric Data sheet - Trainer Fidelity of IV: Attention Trials

**Attention trials - Write in yes/+ or no/- for each bullet point.**

1. Describe
2. Model trainer enacting
3. Model - participants collect data
4. Review accuracy of participant data collection

**Attention Control segment (up to 2 minutes):**

- Sit with the client and give the client at least one moderately-preferred toy
- Start the stopwatch
- Give the client continuous attention (vocal and occasional physical if appropriate) for the entire 2-minute segment. Vocal attention includes comments; physical attention includes pats on the back or a touch on the arm. No more than 10 seconds should lapse between interactions.
- Reply to all questions and bids for attention by the client.
- Do NOT ask any questions or ask the client to do anything or stop doing anything (do not issue demands)
- DO NOT respond to - ignore - any problem behaviors that are not the one we are targeting (i.e., ignore flapping hands if PB we are targeting is tantrums)
- DO NOT allow access to high-preferred items (i.e. you don’t have to wait the whole 2 minutes to start the second segment) The PB ends the control segment and is the cue to start the test segment. Two minutes elapsing is the cue to start the test segment (If no PB has occurred).
1. Describe
2. Model
3. Model - participants collect data
4. Review accuracy of participant data collection

Attention Test segment (up to 2 minutes):


-Say to the client “I have some work to do” <This statement demarks the end of the control segment, and the beginning of the test segment>
-Do NOT ask any questions or ask the client to do anything or to stop doing anything (do not issue demands)
-Reset the timer to count up to 2 minutes again
-Turn away from the client but stay close (arm’s length) to the client. Be busy with your clipboard and papers (maybe fill out the data or review the procedures on the data sheet)
-If the client moves away, try to casually maintain proximity
-Ignore all of the client’s requests or bids for attention. Make no change in your behavior whatsoever in response to client requests (i.e., don’t start humming, get more busy, don’t turn toward or further away from the client; no eye contact)
-If the client engages in the PB, turn and face the client and deliver attention (vocal and physical) for about 10-30s. For example, touch the client’s arm and say calmly, “hey, why are you doing that?” and/or “you shouldn’t do that” and/or “let’s do this instead” Do this right away - within 5 seconds. PB results in obtaining your attention
-PB ends the test segment (i.e. you don’t have to wait the whole 2 minutes to end the trial).
-End the test segment after 2 minutes if no PB occurs.
-Since the trial is over and you have not started another trial yet, you can interact normally with the client or you can step away.
-Put the materials back in the box where they are stored
-Complete all portions of data sheet that have not already been completed during the trial.
A. TPB present in control & test (all relevant behaviors)
1. Describe
2. Model
3. Model - participants collect data
4. Review accuracy of participant data collection

Attention Data Collection:

Complete the data sheet as you go and/or at the end of
the trial.
- Yes – you did the task as described
- No – you did not do the task as described
- N/A – no opportunity to do the task (i.e.,
mark N/A by 'Ignored nontargeted PB’ if the client didn’t
do another PB – so there was no opportunity to ignore it;
mark N/A by 'If no PB occurs, continue test segment for
2 minutes’ if a PB DID occur and you therefore didn’t
follow this step of the TA)

Look over the instructions for the trial you just implemented
and see if there are any steps you missed.

Participant Mastery during training:
5. Participant enact in pair with trainer (with all participants collecting data)
6. Provide feedback and opportunity to re-enact as needed
7. Review accuracy of participant data collection
5-7 tasks are done on the participant data sheets and collected by the independent
observer

When each participant enacts a trial, the trainer, all participants and
an independent observer will use the TBF A checklists to mark off tasks.
Participant Data collection sheets will be reviewed and corrected
by the participants with directions from by the trainer – and then
collected after each trial by the independent observer.
Appendix E

TBFA Assessment Setting and Materials
Appendix F
Confederate Client Training Rubric

Confederates will be trained to emit 6 types of behaviors similar to those outlined in Lambert et al. (2014):
1. the targeted problem behavior (self-injury)
2. an untargeted problem behavior (property destruction)
3. play (any nondestructive use of objects)
4. compliance with demand (completes request prior to model or hand-over-hand prompting of 3-step prompting procedure)
5. non-compliance with demand (completes request after model prompt or hand-over-hand prompting of 3-step prompting procedure)
6. appropriate communication (asks for attention, tangible or to be left alone in socially appropriate manner)

Operational definitions of problem behaviors:

**Targeted PB:**
Self-injurious behavior: Any instance in which student's hand (open palm or fist) makes audible contact with any other part of his/her body from a distance of 6 inches or greater

**Non-targeted PBs:**
Property destruction - any instance in which the client rips, throws, punches, slaps, knocks over or kicks an inanimate object. Includes swiping objects off surfaces.

These scripts will be the different trial conditions administered during the trial-based FA. During each trial, confederates will emit all relevant responses as scripted for each trial type. Thus, each trial administration will assess all component skills of the TBFA procedure during either the test or control segments in a scripted order. Training will be complete when the confederates can complete 8 trials (2 of each 4-trial types) with 100% fidelity to scripts.
Confederate Client Behavior Data Sheet:
Instruction Rubric for Confederate Client Training Rubric
Fidelity Data Sheet

Participant # _______ Trial # _______ Primary Reliability Training Fidelity
Client Initials _______

Check off observed client behavior. Answer questions regarding order of behaviors:

<table>
<thead>
<tr>
<th>Non-targeted PB (property destruction)</th>
<th>(checkmark)</th>
<th>(checkmark)</th>
<th>(checkmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication: (for Attn/Tang/Escape)</td>
<td>(checkmark)</td>
<td>(checkmark)</td>
<td>(checkmark)</td>
</tr>
<tr>
<td>TIB (self-injury)</td>
<td>(checkmark)</td>
<td>(checkmark)</td>
<td>(checkmark)</td>
</tr>
</tbody>
</table>

Communication: (for Attn/Tang/Escape)
Comply to Vocal

NON Comply until:
• Model
• High

Were ALL above behaviors Enacted Prior to TIB (in any order)?

TPB (self-injury)

Were ALL above behaviors Enacted Prior to TIB (in any order)?

Variation
Appendix G

Individualized Performance Feedback Training Rubric

Individualized trainer will use fidelity scoring data sheet to guide individualized feedback. The trainer will provide feedback as per group training protocols.

Trainer will use procedural fidelity data sheet to guide feedback and reference the appropriate bullet point(s) from the TA to give feedback. For each step on the procedure sheet with an incorrect, trainer will engage in the following 4 activities:
- Identify the error
- Describe accurate implementation
- Model accurate implementation (with participant acting as client)
- Allow participant to practice accurate implementation of the previously incorrect step (with trainer acting as client)

If client data collection is incorrect, trainer will: identify error, describe correct, and participant practice (no modeling).

Independent observers will score one-on-one feedback using data checklists for each incorrect procedural step (4 feedback activities) and for data collection (3 feedback activities).

The feedback activities may be done at the same time for multiple errors within the same trial segment (e.g., if 3 errors are made during control segment, feedback for all 3 may be done at the same time).

Logistics:
Trainer and independent trained observer will take procedural fidelity and client behavior data for Participant during assessments after group training. If participant has 100% fidelity (i.e., mastery), then those trial types will not require individualized feedback, other than stating it was done correctly. If the participant did not achieve mastery, the data sheets completed by the independent observer from the most recent trials (of attention, tangible, escape and/or ignore) will be used to provide individualized feedback to the participant before all trials types (not previously mastered) will be assessed again. This will be repeated until mastery is achieved for all 4 trials types.
# Individualized Feedback - Fidelity to Training Rubric

## Attention

<table>
<thead>
<tr>
<th>Participant #</th>
<th>Date</th>
<th>Trial #</th>
<th>Participant</th>
<th>Client Initials</th>
<th>Room</th>
<th>Primary Reliability Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Description of TPB:**

- Moderately preferred toys used:
  - 

<table>
<thead>
<tr>
<th>Segment</th>
<th>Stop</th>
<th>Yes</th>
<th>N/A</th>
<th>ID</th>
<th>Dec</th>
<th>Me</th>
<th>Pr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Sub/start timer</td>
<td>Allow client access to moderately preferred toys (And NO access to high-preferred toys)</td>
<td>Give the client attention at least every 10 s. &amp; reply to all client bids for attention - SAY:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data</td>
<td>Do NOT ask questions</td>
<td>Do NOT ask client to do/don't do anything</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>ignore non-targeted PB</td>
<td>If TPB occurs, stop control segment within 5 s. of TPB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test</td>
<td>Restart timer</td>
<td>If no TPB occurs, stop control segment after 2 min.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data**

- Did the client engage in the targeted problem behavior during control segment?
  - 

**Test**

- Did the client engage in the targeted problem behavior during test segment?
  - 

**Did you complete all the steps correctly?**

<table>
<thead>
<tr>
<th>Correct</th>
<th>Test</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix H

Social Validity: Training Acceptability Rating Scale

Social Validity Questionnaire

Modified Training Acceptability Rating Scale  Participant #:______

The following 12 questions focus on your impressions of the teaching process and outcomes, (i.e. how completely you think the training was conducted and whether it was helpful or not). For each question, please circle the statement that best expresses your opinion.

PLEASE CIRCLE ONE ANSWER.

1. Did the training improve your understanding of Trial-based FA and the assessment of behavior problems?

   Not at all  A little  Quite a lot  A great deal

2. Did the training help you to develop the skills necessary to effectively administer a Trial-based FA?

   Not at all  A little  Quite a lot  A great deal

3. Has the training made you more confident in your skills to conduct a Trial-based FA with oversight from a supervisor?

   Not at all  A little  Quite a lot  A great deal

4. If asked to assess a problem behavior with oversight from a supervisor, do you expect that you will make use of what you have learnt in the training?

   Not at all  A little  Quite a lot  A great deal

5. How competent were the training facilitators?

   Not at all  A little  Quite a lot  A great deal

6. In an overall general sense, how satisfied are you with the training?

   Not at all  A little  Quite a lot  A great deal

7. Did the training cover the topics it set out to cover?

   Not at all  A little  Quite a lot  A great deal
8. Did the trainer relate to the group effectively?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
</table>

9. Was the group leader motivating? (e.g. energetic, attentive and creative)

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
</table>

10. You experienced reading an information packet and trying to administer to assessment. Do you feel this was an effective way to train this assessment skill?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
</table>

11. You then experienced a small group performance feedback training session after having read the information packet. Do you feel that this was an effective way to train this assessment skill?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Quite a lot</th>
<th>A great deal</th>
</tr>
</thead>
</table>

12. What were the one or two most helpful things of the training for you personally?

________________________________________________________________________

________________________________________________________________________

13. What changes, if any, would you recommend? (e.g. to the content – such as skills you felt were omitted or not discussed enough or to the training?)

________________________________________________________________________

________________________________________________________________________

14. Please make any other comments that you would like to offer.

________________________________________________________________________

Thank You!
REFERENCES


O'Brien, A. M. Dickinson, & M. P. Rosow (Eds.), *Individual behavior
modification* (pp. 159-182). New York: Pergamon Press.


Najdowski, A. C., Wallace, M. D., Ellsworth, C. L., MacAleese, A. N., & Cleveland, J.
Applied Behavior Analysis, 41*, 97-105.

response during the functional analysis of elopement. *Journal of Applied
Behavior Analysis, 46*, 312-316.

brief functional analysis of aggressive and alternative behavior in an outclinic

mental handicap: a total population study. *Journal of Mental Deficiency Research,
31*, 147–162.

(1997). Functional assessment and program development for problem behavior: A


