

Graduate Theses, Dissertations, and Problem Reports

2018

Training Supervisors to Provide Feedback Using Video Modeling

Natalie Jones Shuler

Follow this and additional works at: https://researchrepository.wvu.edu/etd

Recommended Citation

Shuler, Natalie Jones, "Training Supervisors to Provide Feedback Using Video Modeling" (2018). *Graduate Theses, Dissertations, and Problem Reports.* 6639. https://researchrepository.wvu.edu/etd/6639

This Thesis is protected by copyright and/or related rights. It has been brought to you by the The Research Repository @ WVU with permission from the rights-holder(s). You are free to use this Thesis in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you must obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This Thesis has been accepted for inclusion in WVU Graduate Theses, Dissertations, and Problem Reports collection by an authorized administrator of The Research Repository @ WVU. For more information, please contact researchrepository@mail.wvu.edu.

Training Supervisors to Provide Feedback Using Video Modeling

Natalie Jones Shuler, B.A.

Thesis submitted to the Eberly College of Arts and Sciences at West Virginia University

in partial fulfillment of the requirements for the degree of

Master of Science in Psychology

Regina A. Carroll, Ph.D., BCBA-D, Chair Michael Perone, Ph.D. Amy Herschell, Ph.D.

Department of Psychology

Morgantown, West Virginia 2018

Keywords: early-intensive behavioral intervention, performance feedback, staff training, supervisory skills,, video modeling Copyright 2018 Natalie J. Shuler

Abstract

Training Supervisors to Provide Feedback Using Video Modeling

Natalie Jones Shuler

Supervisors commonly use feedback to teach staff members to accurately implement behavioral interventions. However, few studies have evaluated methods to teach supervisors to provide effective feedback. In the current study, we used a multiple-baseline design to evaluate the use of video modeling to train four supervisors to provide performance feedback to therapists working with children with autism. We assessed the supervisors' accuracy with implementing eight feedback component skills (e.g., behavior-specific praise, describing incorrect performance, demonstrating correct performance) during simulated role-plays before and after the video-modeling intervention. Following the intervention, we assessed the extent to which the supervisors' skills generalized when providing feedback on a confederate therapist's implementation of novel behavioral protocols and an actual therapist's implemented the feedback component-skills with increased accuracy following the video-modeling intervention. Additionally, supervisors' skills generalized to providing feedback on novel protocols and to an actual therapist. These results suggest that video modeling may be an effective method of training supervisors to provide performance feedback.

Acknowledgements

I would like to thank my thesis chair and advisor, Dr. Regina Carroll for her guidance and support while I completed this thesis. I could not have completed the project without her assistance. I would also like to thank Dr. Carroll for the mentorship that she has provided during my time at West Virginia University. I have learned so much from our interactions. Also, I would like to thank Dr. Michael Perone and Dr. Amy Herschell for serving on the committee for this project and for providing me with feedback. Lastly, I owe a huge thank you to my lab mate, Jenni Owsiany, and colleague, Victoria DiSciullo, for serving as confederates as I prepared the project materials. They dedicated a significant portion of time to making sure that we created a quality product.

List of Tablesv	
List of Abbreviationsvi	
Introduction1	
Treatment Integrity	
Staff Training5	
Teaching Supervisors to Provide Performance Feedback7	
Video Modeling	
Purpose11	
Method	
Participants11	
Setting and Materials	
Dependent Measures and Data Collection	
Interobserver Agreement and Procedural Fidelity14	
Pre-training	
Simulated-Session Videos	
Experimental Design	
Procedure	
Baseline17	
Video Modeling	
Post-training Assessment	
Tailored Training (Supervisor 4 only)22	
Generalization Probes	
Follow-up Probes	
Social Validity	
Results	
Discussion	
References41	
Tables46	
Figures	
Appendices	

Table of Contents

List of Tables

Т	al	bl	les

1.	Performance Feedback Component Skills	46
2.	Guided-Compliance Procedure Component Skills	47
3.	Discrete-Trial Training Component Skills	.48
4.	Mand-Training Procedure Component Skills	.50
5.	Duration of Training Required for Each Activity During Video-modeling, Tailored-	
	Training, and Post-Training Sessions Across Supervisors	51
6.	Supervisor Responses on a 6-Point Likert-Type Scale for Each Item of the Social -	
	Validity Questionnaire With Higher Scores Indicating Greater Agreement with the	
	Statement	.52

List of Abbreviations

ASD	autism spectrum disorder
DTT	discrete-trial training
BCBA	board-certified behavior analyst
ΙΟΑ	interobserver agreement

Training Supervisory Staff to Provide Feedback Using Video Modeling

The American Psychiatric Association (2013) characterizes Autism Spectrum Disorders (ASD) by deficits in social skills, communicative language, and repetitive responses. Current methods of treatment include early-intensive behavioral intervention (Matson, Tureck, Turygin, Beighley, & Rieske, 2012). Early intervention typically consists of (a) individualized one-on-one treatment, (b) selection of goals and objectives based on sequence of development, (c) multiple treatment goals, (d) therapists trained in the implementation of behavior-analytic procedures, and (e) parent involvement in intervention (Lovaas, 1987; Reichow, 2012). Treatment occurs up to 40 hours per week and lasts two or more years, beginning at three to four years of age (Reichow, 2012).

Therapists in early-intervention clinics use a variety of procedures to teach children with ASD multiple skills, including guided-compliance, discrete-trial training (DTT), and mandtraining procedures. Therapists use guided-compliance procedures to increase a child with ASD's compliance with the therapist's instructions. With this procedure, the therapist delivers increasingly intrusive prompts (e.g., a verbal prompt, model prompt, and physical prompt) if a child does not comply with an instruction (e.g., Horner & Keilitz, 1975; Wilder & Atwell, 2006). Wilder and Atwell (2006) evaluated the use of a guided-compliance procedure with preschool children who exhibited problem behavior. Experimenters measured child compliance (i.e., initiating the behavior specified by the therapist's demand) following the addition of increasingly intrusive prompts if the child did not comply. Wilder and Atwell showed that when therapists implemented the guided-compliance procedure, four of six children were more likely to comply with the demand. This suggests that therapists can use guided-compliance procedures with some children to increase the likelihood that they will follow an instruction. DTT is a teaching procedure used during early-intensive behavioral intervention (Reichow, 2012). During DTT, complex skills are broken down into component skills and a therapist presents opportunities (i.e., discrete trials) for an individual with ASD to practice each component skill repeatedly in a contrived setting (Leaf & McEachin, 1999). Each discrete trial has five parts (a) the therapist's presentation of an instruction, (b) a prompt provided by the therapist to help the child respond correctly, (c) the child's response, (d) specific consequences provided by the therapist following a child's correct or incorrect response, and (e) the intertrial interval or a 1- to 2- s pause between discrete trials. Therapists commonly use DTT in early-intervention clinics because the procedure can be used to teach a variety of skills (Smith, 2001).

Mand training is a common teaching procedure used to teach children with ASD to request preferred items or activities. During training, a therapist sets up opportunities for a child to request a preferred item or activity, provides prompts when needed (e.g., models the correct request), and provides access to the item following a child's request (Bourret, Vollmer, & Rapp, 2004). Using the three teaching procedures described above, early intervention can work towards multiple treatment goals simultaneously. Because these procedures are used to develop a variety of skills in children, supervisors must ensure that therapists are implementing each procedure with high levels of accuracy.

Treatment Integrity

Treatment integrity refers to the extent to which therapists implement behavioral interventions as intended (Peterson, Homer, & Wonderlich, 1982). Several studies have demonstrated that when therapists implement procedures with low integrity or integrity errors, it can impact treatment outcomes (Carroll, Kodak, & Fisher, 2013; Pence & St. Peter, 2015; Wilder, Atwell, and Wine, 2006). For example, Wilder et al. (2006) examined the effects of

decreased treatment integrity on child compliance during the implementation of a guidedcompliance procedure. The experimenters compared compliance for two children when the therapist implemented the guided-compliance procedure accurately on all trials (100% integrity), half of the trials (50% integrity), and none of the trials (0% integrity). Participants complied with a high percentage of therapist demands when the therapist implemented the guided-compliance procedure with 100% integrity. In comparison, when the therapist implemented the procedure with 50% or 0% integrity, participants complied on a low percentage of trials. Although studies show that the guided-compliance procedure can increase compliance across a variety of different contexts (e.g., Miles & Wilder, 2009; Wilder, Fischetti, Myers, Leon-Enriquez, & Majdalany, 2013), Wilder et al. demonstrated that the effectiveness of the intervention may be compromised if therapists implement the procedures with low levels of treatment integrity.

Carroll et al. (2013) conducted a series of studies evaluating the effects of treatmentintegrity errors on skill acquisition for children with ASD during DTT. In Study 1, the authors observed teachers working in an academic setting to identify common errors that teachers make when implementing structured one-on-one teaching procedures (e.g., DTT) with children with ASD. They found that teachers often made treatment-integrity errors when presenting the instruction, delivering a controlling prompt, and delivering a preferred item following a correct response. During Study 2, Carroll et al. compared skill acquisition for six children with ASD when a therapist implemented DTT with and without the three most common treatment-integrity errors identified in Study 1. The results of Study 2 showed that participants quickly acquired the skills when therapists implemented DTT accurately (high-integrity condition). In comparison, only one of the six participants acquired the skills when the therapist implemented DTT with a combination of integrity errors (low-integrity condition). In Study 3, Carroll et al. evaluated the influence of individual treatment-integrity errors on the skill acquisition of three children with ASD during DTT. Specifically, they compared skill acquisition during a high-integrity condition (100% accurate implementation) to skill acquisition during three types of low-integrity conditions; errors of instruction, errors in the controlling prompt, and errors of reinforcement. During low-integrity conditions, therapists presented a trial with the programmed error type on 67% of trials. Results differed across participants based on error type, with two participants acquiring the skills in the high-integrity condition first. Carroll et al. showed that varying types of treatment integrity failures may produce different outcomes across children when implementing DTT procedures.

In another example, Pence and St. Peter (2015) demonstrated the importance of treatment integrity when implementing mand-training procedures. In a series of two experiments, experimenters evaluated the impact of two different errors when therapists implemented mand-training procedures at varying levels of treatment integrity to teach mands to children with developmental disabilities. During Experiment 1, experimenters evaluated the impact of incorrect toy delivery on acquisition of mands for two children. During a low-integrity trial for this experiment, when the child emitted a mand the therapist delivered the incorrect item. Both participants acquired the mands taught when the correct item was delivered on 100% of opportunities in the fewest number of sessions. Participants acquired mands taught with varying levels of treatment integrity differently, with one participant mastering mands that the therapist taught with 0% integrity and the other mastering targets in the 40%-integrity condition next. In Experiment 2, experimenters delivered the toy independent of the child's mand for three children. During a low-integrity trial for this experiment, the therapist provided the item on a time-based schedule, regardless of requests for the item. In this experiment, all three participants

mastered the mands taught in the 100% condition first and the 70% condition second, suggesting that requiring a correct mand to obtain the item produces more efficient mand acquisition. Pence and St. Peter demonstrated that client outcomes (i.e., acquisition of mands) are impacted if a therapist implements the mand-training procedures with low integrity. The combined results of these studies suggest that reduced treatment integrity can have a profound impact on child outcomes when working with children with ASD (Carroll et al., 2013; Pence & St. Peter, 2015; Wilder et al., 2006). Given the importance of treatment integrity, it is vital that clinics use effective staff training procedures to ensure that therapists implement procedures with high levels of treatment integrity on a consistent basis.

Staff Training

Previous studies have demonstrated the effectiveness of evidence-based staff-training procedures to teach staff members to implement behavioral interventions with high integrity. For example, studies have used behavioral skills training to teach staff members to implement a variety of procedures used in early-intervention clinics (Miles & Wilder, 2009; Nigro-Bruzzi & Sturmey, 2010; Sarakoff & Sturmey, 2004). Behavioral skills training consists of (a) written and verbal instructions of how to perform a skill, (b) a trainer modeling how to perform a skill, (c) rehearsal of the skill by the trainee, and (d) feedback provided by the trainer on the trainees' performance (Miles & Wilder, 2009). Feedback is a common component across many evidence-based staff-training procedures.

Experimenters have identified feedback as a necessary component of staff-training procedures through a component analysis (Ward-Horner & Sturmey, 2012). Feedback is defined as quantitative or qualitative information used to change or maintain behavior, often accompanied by social consequences (Arco, 2008). Feedback can be used for both increasing

appropriate responses and changing incorrect performance. For example, when providing performance feedback to a therapist on their implementation of DTT, a supervisor may say to the therapist "I loved how you provided praise immediately following the correct response, but next time, be sure to wait 5 s before presenting another trial." In this example, the supervisor highlights the component that the therapist performed correctly (i.e., provides reinforcement) and provides instruction on the component where an error was made (i.e., the inter-trial interval). Providing performance feedback requires several components. The supervisor must (a) be able to collect accurate data on therapist behavior (i.e., to identify both correct and incorrect therapist responses), (b) provide descriptive praise to reinforce behaviors the therapist performed well, (c) describe incorrect therapist performance to identify areas for improvement, (d) provide a rationale for change or give reasoning why a specific step is important for the therapist to implement correctly, (e) provide instruction on how the therapist can implement the step correctly, (f) demonstrate correct implementation, (g) provide an opportunity for the therapist to practice any steps with errors, and (h) provide an opportunity for the therapist to ask questions (Behavior Analyst Certification Board, 2012). Several studies within the fields of applied behavior analysis (ABA) and organizational behavior management (OBM) have demonstrated that providing feedback alone can be an effective training method. (Gil & Carter, 2016; Jerome, Kaplan, & Sturmey, 2014).

DiGennaro Reed and Henley (2015) surveyed board-certified behavior analysts and those seeking certification on the staff-training procedures used in their facilities of employment. Forty-seven percent of individuals surveyed stated that their initial training procedures used feedback. Additionally, feedback was the second most common training method in these settings for maintaining skills. Though these results suggest that supervisors are commonly providing feedback, most supervisors do not report receiving any training on how to provide feedback. Sixty-six percent of individuals who served as supervisors reported that they did not receive any specific training on effective supervision practices (DiGennaro Reed & Henley, 2015). This is a problem, because studies have shown that the accuracy of feedback can influence performance (e.g., Hirst, DiGennaro Reed, & Reed, 2013). By not training supervisors on how to provide supervision or feedback to therapists, we are taking a risk that supervisors will provide inaccurate or inadequate feedback and that therapists may implement interventions with low levels of treatment integrity. As reviewed earlier, this can be detrimental to child outcomes (Carroll et al., 2013; Pence & St. Peter, 2015; Wilder et al., 2006). Currently, there are few studies that look at methods to directly teach supervisory skills.

Teaching Supervisors to Provide Performance Feedback

Though studies have demonstrated that feedback can be effective (e.g., Gil & Carter, 2016; Jerome, Kaplan & Sturmey 2014) and emphasized the importance of accurate feedback (Hirst et al., 2013), there are few studies that directly teach supervisors to provide performance feedback or related skills for supervisors (Green, Rollyson, Passante, & Reid, 2002; Jenson, Parsons, & Reid, 1998; Parsons & Reid, 1995). Jenson et al. (1998) trained teachers to provide feedback to teaching assistants using both classroom instruction and on-the-job feedback. Experimenters trained seven teachers to provide feedback to eight teaching assistants on their accuracy of data collection. Experimenters provided two classroom-based lectures; one on how to collect data on the targeted skills and one on the necessary components of feedback. Accuracy of data collection increased for seven of eight teaching assistants after the teachers received training. However, this study had a few methodological limitations. In this study, experimenters did not measure whether the feedback that teachers provided was accurate or whether it included the components required for effective feedback. Without collecting data on these components, experimenters cannot determine whether the feedback that each teaching assistant received was similar or contained the necessary components to be effective.

In another example, Parsons and Reid (1995) evaluated a training program to teach ten supervisory staff from a residential facility to provide feedback to supervisees. Each supervisor completed an eight-hour training program. The program consisted of two classroom sessions; one that taught accurate implementation of behavioral protocols and one that taught supervisors to provide feedback on implementation of those protocols. Experimenters assessed the supervisor's correct implementation of feedback after each training. All participants required direct training on providing feedback before meeting mastery criterion, suggesting that training the supervisor on how to correctly implement the behavioral procedure was not sufficient to improve feedback on implementation of that procedure. The supervisor must receive direct training to correctly implement feedback procedures. These results suggest that the supervisors who are not receiving direct training to provide performance feedback (Hirst et al., 2015) may not be implementing performance-feedback procedures with high integrity and thus may not be making a sufficient impact on therapist treatment integrity.

One limitation to the study by Parsons and Reid (1995) is the data-collection procedure. Experimenters assessed feedback by scoring eight component skills as either correct or incorrect during the session. The component skills were (a) providing a statement of empathy, (b) providing positive feedback and praise, (c) describing a skill performed correctly, (d) identifying each category in which errors were made, (e) describing how to perform the skill, (f) soliciting questions, and (g) describing what should happen next. Using these procedures, experimenters collected global measures of integrity for providing performance-feedback. The experimenters

8

described accuracy of the procedure overall (i.e., percentage of components implemented correctly) rather than accuracy of specific components. This may result in high overall levels of integrity (if the supervisor implements most steps correctly) even when a supervisor consistently implements a single component skill incorrectly (Cook et al., 2015). If experimenters solely use global measures to assess feedback performance, then a supervisor could be omitting a vital component of feedback that is not captured by the measure. Omission of feedback components or errors in components may minimize the impact that the feedback has on therapist behaviors.

Another limitation to the study by Parsons and Reid (1995) is the lengthy training procedure. Parsons and Reid required a total of 8 hours of in-class didactic instruction. The inclass format required that both the supervisors and an experienced trainer were present for that extended duration. In an early-intervention clinic, there may not be a higher-level supervisor present to implement this training. Additionally, a prolonged training procedure may be impractical for the supervisors. Using video modeling may remove this barrier to dissemination of supervisory training (Higgins, Lucyzynki, Carroll, Fisher, & Mudford, 2017; Vladescu, Carroll, Paden, & Kodak, 2012).

Video Modeling

Video modeling consists of having an individual watch a video recording, demonstrating correct implementation of a skill for the viewer to imitate when implementing the procedure themselves (Vladescu et al., 2012). Video modeling has been used to effectively increase staff members' accuracy with implementing a variety of behavioral interventions. This type of training procedure may also reduce the amount of time required to train staff members. For example, Vladescu et al. (2012) evaluated the use of a video-modeling procedure to train new therapists to implement DTT. After viewing a video model with voice-over instructions,

therapists implemented DTT with a confederate role playing a child. All therapists implemented DTT with high levels of accuracy after watching the video model, reaching 90% accuracy within one to three sessions. Therapist's accuracy with implementing the procedures generalized when implementing DTT with novel protocols and when using the procedures to teach target skills to a child with ASD. Therapists continued to implement DTT accurately and children quickly acquired the target skills. This demonstrates that experimenters can use video modeling as an effective and efficient method to train staff on new procedures.

In another example, Higgins et al. (2017) assessed the use of a telehealth-training package to train staff to implement preference assessments remotely. Experimenters measured the percentage of mastered component skills when conducting preference assessments for three participants, evaluating staff performance on each component skill, as well as a global measure of performance. Following a written-instructions baseline, experimenters trained participants using a multimedia presentation describing components of the session and feedback from previously recorded sessions. After viewing the presentation, participants conducted a simulated preference assessment during role play with a confederate. If participants did not meet mastery within two sessions, experimenters provided tailored training to target the component skills that they often implemented incorrectly. Following training, all three participants' accuracy with implementing preference assessments increased and only one participant required tailored training. This study demonstrated that video modeling, both with and without in-person observation and feedback can be effective in training implementation of procedures. In addition, by analyzing treatment integrity in a novel way, experimenters observed accuracy across individual component skills. These data allowed experimenters to identify steps of the procedure which the staff member did not implement correctly following the initial intervention. The

current study seeks to extend both the video-modeling and supervisory-training literature (e.g., Higgins et al., 2017; Parsons & Reid, 1995; Vladescu et al., 2012) by using video modeling to train supervisors to provide performance feedback, potentially reducing both training time and need for an additional trainer to be present.

The purpose of the current study was to evaluate the use of video modeling to train supervisors to provide performance feedback to a confederate therapist implementing a guidedcompliance procedure. Following the video-modeling intervention, we assessed generalization of performance-feedback skills to novel procedures and an actual therapist. Specifically, we assessed supervisors' accuracy with providing performance feedback to a confederate therapist implementing guided-compliance, DTT, and mand-training procedures and to an actual therapist implementing the guided-compliance procedures with a child with ASD. Additionally, we used data-analysis procedures that allowed us to examine supervisors' accuracy with implementing individual component skills of the performance-feedback procedure.

Method

Participants

Four individuals who worked at a university-based early-intervention clinic for children with ASD served as supervisors for this study. All supervisors worked at the clinic for a minimum of 20 hours per week, receiving a tuition waiver and stipend or a stipend only for their work. All supervisors had two or more years of experience providing behavioral services to children with ASD.

Supervisors 1, 2, and 4 were Caucasian females between the ages of 18 and 24 and were enrolled as full-time graduate students seeking a Master's of Arts in Special Education at the time of the study. As a part of this program, Supervisors 1, 2, and 4 were completing a course

sequence and accruing hours to earn certification as a Board-Certified Behavior Analyst (BCBA). Prior to the start of this study, Supervisors 1, 2, and 4 had each held a supervisory position in the clinic for approximately one year. As a supervisor, they were responsible for overseeing progress of clients in the clinic. This role included identifying client skills for improvement, developing programs for clients, training the therapists to implement client programs, and collecting and analyzing data related to client and therapist performance. Supervisor 3 was a Caucasian male between the ages of 25 and 34 who had a Bachelor's degree in psychology. Supervisor 3 served as data coordinator for the clinic. In this role, Supervisor 3 served as a therapist for clients and he also assisted with training other therapists to implement behavioral procedures.

During generalization probes, the supervisor provided feedback to an actual therapist who worked in the clinic. These therapists were junior or senior undergraduate psychology students who served on a volunteer basis and typically received course credit in professional field experience for their work. Each therapist worked directly with one or more clients teaching functional skills through DTT, implementing interventions specific to the client's goals, and providing incidental teaching to increase requests during individual- and group-play times.

Setting and Materials

We conducted all training sessions in a private conference room located in a universitybased early-intervention clinic. The conference room contained a table, four chairs, and the materials needed to conduct experimental sessions. Materials needed to conduct sessions included a tripod, a video camera, a laptop, datasheets, and protocols. Additionally, during all sessions the supervisor had access to a bin that contained two timers, two pens, a calculator, and several small toys (e.g., blocks, a car, a finger puppet, etc.).

Dependent Measures and Data Collection

The experimenter watched videos of all sessions and scored each supervisors' accuracy with implementing the eight component skills for providing performance feedback (see Table 1). We summarized the data in two ways. First, for each session we calculated the supervisor's accuracy with implementing each component skill. We calculated the supervisor's percentage of accuracy by dividing the number of times the supervisor implemented a component skill accurately in a session by the total number of opportunities to implement that skill and multiplying by 100. We considered a component skill mastered when the supervisor implemented that skill accurately on 80% or more of the opportunities in a session.

Second, we summarized the data as a percentage of mastered component skills in a session. We calculated the percentage of mastered component skills by dividing the number of skills that the supervisor implemented accurately on 80% or more opportunities by the total number of component skills. For example, if the supervisor implemented six of the eight feedback component skills accurately on 80% or more opportunities in a session (i.e., mastery), then the percentage of mastered component skills for that session would be 75%. Our mastery criterion for terminating video-modeling sessions was mastery of 88% of the component skills (i.e., 7 out of 8 skills) in a session. Our mastery criterion for terminating post-training sessions was mastery of 88% of the component skills across two consecutive post-training sessions. If any supervisor did not meet mastery following five post-training sessions was mastery of 88% of the tailored training. Our mastery criterion for terminating tailored training sessions was mastery of 88% of the component skills in a session.

Additionally, we measured the duration of training required during the video-modeling, tailored-training (Supervisor 4 only), and post-training sessions for each supervisor. We

calculated the total duration of training in minutes for the following activities (a) reviewing protocols and collecting treatment-integrity data, (b) viewing the video model, (c) tailored training (Supervisor 4 only), and (d) providing feedback to a confederate.

Interobserver Agreement (IOA) and Procedural Fidelity

A second observer watched the video and scored the supervisor's accuracy with implementing the eight component skills for providing performance feedback during an average of 54% (range, 50% to 57%) of the total sessions for each supervisor. We compared the primary and secondary observers' data and scored an agreement if both observers independently recorded the same response (e.g., both observers recorded that the supervisor implemented a component skill accurately during an opportunity) and a disagreement if observers recorded different responses (e.g., one observer recorded that the supervisor implemented a component skill accurately and the other recorded inaccurate implementation). When calculating IOA for the duration of training, we scored an agreement if both observers recorded the same time (within a 15-s window) for each activity within the session (e.g., collecting treatment-integrity data, viewing the video model). We calculated the percentage of agreement between the observers by dividing the number of agreements by the total number of agreements plus disagreements and multiplying by 100. Mean agreement scores were 96% (range, 93% to 100%) for Supervisor 1, 93% (range, 85% to 97%) for Supervisor 2, 96% (range, 82% to 100%) for Supervisor 3, and 97% (range, 94% to 100%) for Supervisor 4.

The second observer also scored the experimenter's accuracy with implementing the experimental protocol (i.e., procedural fidelity) during an average of 54% (*range*, 50% to 57%) of the total sessions for each supervisor. During each session, the experimenter responses included (a) showing the video model, defined as showing the video model during video-

modeling sessions only, (b) providing instructions to collect integrity data, defined as presenting the instructions as worded in the experimental protocol, (c) allowing the supervisor up to 10 min to review the protocols and operational definitions, (d) showing the session video that was predetermined prior to the start of the session, (e) withholding feedback on the supervisor's performance, (f) asking the supervisor the number of questions that were pre-determined prior to the start of the session if the supervisor provided an opportunity to ask questions, and (g) engaging in the number of errors that were pre-determined prior to the start of the session if the supervisor provided an opportunity to role-play. The secondary observer scored the experimenter's accuracy with implementing each step of the experimental protocol as either correct, incorrect, or not applicable. We calculated procedural fidelity by dividing the number of steps the experimenter implemented correctly by the number of steps implemented correctly plus the number of steps implemented incorrectly and multiplying by 100. Mean fidelity scores were 100% for Supervisors 1, 2, and 4 and 96% (*range*, 86% to 100%) for Supervisor 3.

Pre-training

Prior to the start of this study, supervisors were trained to collect data on therapists' accuracy with implementing the procedures used during the study (i.e., guided compliance, mand training, and DTT). As part of their regular duties as a supervisor, they used the data sheets and operational definitions that we used in this study, to assess therapists' accuracy with implementing behavioral procedures and provide feedback. Prior to the start of the study, we assessed each supervisor's accuracy with collecting data on the therapist's accuracy with implementing the guided-compliance procedure, mand training, and DTT. We had supervisors collect data from videos depicting simulated sessions with two confederates (see Simulated-Session Videos below). Supervisors' data were compared to data collected by a trained

secondary observer. If agreement between the supervisor and the secondary observer was below 92%, then we conducted additional training on data collection. During direct training, the experimenter provided instructions on collecting data, and practiced data collection with the supervisor while providing feedback on correct and incorrect responses. Direct training continued until the supervisor demonstrated that they could collect data on the therapist's accuracy with implementing the procedure with agreement above 92% against the data of a trained observer for two consecutive sessions. Due to experimenter error, Supervisor 1 completed the mand-training generalization probe during baseline prior to demonstrating that she could collect data on the therapist's accuracy with implementing the procedure with agreement above 92%.

Simulated-Session Videos

We used simulated-session videos during baseline, video-modeling, post-training, followup sessions, and when assessing generalization to novel behavioral procedures. We used simulated-sessions in order to give the supervisors the opportunity to provide feedback on a variety of steps of the procedures (i.e., guided-compliance, mand-training, and DTT procedures) and to limit exposure of actual therapists to low-quality feedback. The supervisors watched a video of two confederates (i.e., the first author role playing as the therapist and a confederate role playing as a child) during the implementation of either the guided-compliance, DTT, or mandtraining procedures. The supervisor was instructed to collect data on the confederate therapist's accuracy with implementing each procedure. After collecting data, supervisors were instructed to provide feedback to the confederate therapist on her implementation of the procedure (see Procedures below). We created a total of 14 simulated-session videos for the guided-compliance procedure. During each video, a confederate therapist and child were present in a room with a table, two chairs, and leisure items (e.g., blocks, cars, puzzle). Each video lasted approximately 2 min (*range*, 1.6 to 2.4 min). In each video, the therapist provided five instructions for the confederate child to follow (e.g., "Stand up," "pick up car," "stack blocks") using the 10 steps of the guided compliance procedure (see Table 2). The confederate child engaged in pre-determined responses during each trial. On each trial the confederate child either (a) complied following the therapist's initial instruction, (b) complied following the therapist's model prompt, or (c) did not comply following the therapist's initial instruction or model prompt. In each video, the confederate child responded following each prompt (i.e., verbal, model, or physical prompt) at least once. The confederate child also engaged in zero to two instances of problem behavior (e.g., aggression or property destruction) in each video.

We varied the number and type of steps that the confederate therapist implemented correctly and incorrectly across videos. During each video, the confederate therapist implemented four to six steps of the guided-compliance procedure with accuracy above 80% and four to six steps with accuracy below 80%. The videos depicted errors in each of the steps of implementing the guided-compliance procedure. For example, an error for *presents instruction once* may include the therapist repeating the verbal instruction more than once in the absence of an additional prompt (e.g., model prompt). An error for *model prompt* may include the therapist presenting the initial instruction. The confederate therapist depicted each step with accuracy below 80% in four to eight videos.

During generalization probes with novel behavioral procedures, the supervisor watched a video of a confederate therapist and confederate child during the implementation of DTT or

mand-training procedures. We created a total of three simulated-session videos for the DTT procedure. During each video, a confederate therapist and child were seated at a table with instructional materials (e.g., target cards, token board, tokens) and leisure items (e.g., bubbles, trains, a dinosaur figurine). The therapist presented five trials using the 10 steps of the DTT procedure (see Table 3). Each video lasted approximately 5 min (range, 3.9 to 6 min). The confederate child engaged in pre-determined responses during each trial. On each trial the confederate child (a) responded correctly, (b) responded incorrectly, or (c) did not respond following the therapist's instruction to touch a target card in an array. The confederate child engaged in each response at least once during each video. The confederate child also engaged in zero to two instances of problem behavior (e.g., aggression or property destruction) in each video. During each video, the therapist implemented five to six steps of the DTT procedure with accuracy above 80% and four to five steps with accuracy below 80%. The videos depicted a variety of errors in the steps of implementing the DTT procedure. For example, an error for reinforcer delivery may depict a therapist delivering a token and praise following an incorrect response. The confederate therapist depicted each step with accuracy below 80% in zero to two videos, with *reinforcer delivery* and *inter-trial interval* not depicted in any videos.

We created a total of four simulated-session videos for the mand-training procedures. During each video, the confederate therapist and child were seated on the floor with leisure items (e.g., car, puzzle, and book). The therapist presented five trials using the 11 steps of the mand-training procedure (see Table 4). Each video lasted approximately 8 min (*range*, 7.1 to 8.1 min). The confederate child engaged in pre-determined responses during each trial. On each trial the confederate child either (a) independently requested the item, (b) requested the item following a non-specific prompt (e.g., "What do you want?"), (c) requested the item following a model prompt, or (d) did not request the item. The confederate child also engaged in zero to two instances of problem behavior (e.g., aggression or property destruction) in each video. During each video, the confederate therapist implemented four to six steps of the mand-training procedure with accuracy above 80% and four to five steps with accuracy below 80%. The videos depicted a variety of errors in the steps of implementing the mand-training procedure. For example, an error for *reinforcement* may depict a therapist failing to provide access to the requested item following an acceptable approximation of the request. The confederate therapist depicted each step with accuracy below 80% in zero to three videos, the *provides model prompt* was never depicted as an error in a video.

Due to experimenter error, two videos depicted fewer programmed errors than planned. In one video of the guided-compliance procedure, the confederate therapist implemented only three steps of the guided-compliance procedure with accuracy below 80% (the video should have depicted the therapist implementing at least four steps of the guided-compliance procedure with accuracy below 80%). Both Supervisors 1 (Session 1) and Supervisor 2 (Session 6) were exposed to this video during baseline. Similarly, in one of the videos of the mand-training procedure, the confederate therapist only implemented three steps of the mand-training procedure with accuracy below 80%. Supervisor 2 was exposed to the video during baseline (Session 4). We removed both videos prior to completing sessions with Supervisors 3 and 4.

Experimental Design

We used a multiple-baseline design across supervisors to evaluate the effects of video modeling on supervisors' acquisition and maintenance of the eight component skills of performance feedback. We conducted baseline and training sessions concurrently for Supervisors 1 and 2 and Supervisors 3 and 4. We assessed each supervisor's accuracy with implementing the eight component skills when providing feedback to a confederate on her implementation of a guided-compliance procedure. Also, we assessed the extent to which supervisors' accuracy with implementing the component skills of performance feedback generalized when providing feedback to an actual therapist implementing the guided-compliance procedure and a confederate therapist implementing DTT and mand-training procedures. We conducted one to three sessions per day, two to three days per week.

Procedure

Baseline. We included baseline sessions to assess each supervisor's accuracy with implementing the eight component skills of performance feedback prior to viewing the video model. At the start of the session, the experimenter provided the supervisor with a copy of operational definitions and a datasheet to collect data on the confederate therapist's accuracy with implementing the guided-compliance procedure. We gave the supervisor 10 min (or less if they indicated they were done) to review the protocols, operational definitions, and datasheet. Next, the supervisor watched a simulated-session video (i.e., video of a confederate therapist and child during implementation of the procedure) and collected data on the confederate therapist's accuracy with implementing the guided-compliance procedure. We randomly rotated between simulated-session videos, with no supervisor seeing the same video more than once. Within 10 min of watching the video, the experimenter instructed the supervisor to try their best to provide feedback to the confederate therapist on her implementation of the procedure. While the supervisor provided feedback, the confederate therapist engaged in several pre-determined responses including (a) asking zero to two questions if the supervisor provided an opportunity (e.g., the supervisor asked, "Do you have any questions?") and (b) making zero to two errors when practicing the implementation of the guided-compliance procedure if the supervisor

provided an opportunity to practice. The experimenter determined these responses based on a random-number list generated for each supervisor prior to the start of the study. The experimenter did not answer questions or provide feedback on the supervisor's accuracy with implementing the component skills for providing performance feedback.

Video modeling. The purpose of this condition was to evaluate the effects of video modeling on a supervisor's accuracy with implementing the component skills for providing performance feedback. During video-modeling sessions, supervisors watched a 15-min video that included a model and voiceover instruction of each component skill for providing performance feedback (see Appendix A for voiceover script). Prior to beginning the video, the experimenter provided the supervisor with a completed data sheet for a simulated session of the guided-compliance procedure. The experimenter instructed the supervisor to follow along as if they were collecting treatment-integrity data while watching a video of the confederate therapist implementing the guided-compliance procedure with the confederate child. Then, for each component skill of performance feedback, a narrator provided instruction on how to implement the skill and showed a model of correct implementation of that skill. Each model depicts a confederate supervisor providing feedback to the confederate therapist (i.e., the first author) on her implementation of the guided-compliance procedure during the simulated-session video shown at the beginning of the video model. Throughout the video model, the confederate supervisor provides feedback on each component skill of the guided-compliance procedure.

Immediately after viewing the video, we conducted a simulated-feedback session using procedures identical to baseline. That is, the experimenter provided the supervisor with operational definitions and a datasheet and gave the supervisor 10 min to review the materials. Next, the supervisor watched a simulated-session video of the guided-compliance procedure and

collected data on the confederate therapist's accuracy with implementing the procedure. Within 10 min of watching the video, the supervisor provided feedback to the confederate therapist on her implementation of the procedure. While the supervisor provided feedback, the experimenter engaged in pre-determined responses using procedures identical to baseline. The experimenter did not answer any questions or provide feedback to the supervisor. Our mastery criterion for terminating video-modeling sessions was mastery (i.e., accurate implementation on 80% or more opportunities) of 88% of the skills (i.e., 7 out of 8 skills) in a session.

Post-training assessment. We conducted post-training sessions one to four days after a supervisor reached our mastery criterion for video modeling. The purpose of the post-training assessment was to demonstrate that supervisors would continue to accurately implement the eight component skills for providing performance feedback when sessions were not conducted immediately after viewing the video model. We used procedures identical to baseline during post-training sessions. Our mastery criterion for terminating post-training sessions was mastery of 88% of the component skills across two consecutive training sessions.

Tailored training (Supervisor 4 only). After conducting four post-training sessions with Supervisor 4, she did not reach our mastery criterion. So, we conducted tailored training with Supervisor 4. During tailored training, the experimenter used the eight performance feedback component skills, to provide Supervisor 4 with feedback on her implementation of the performance feedback procedure. The experimenter's feedback was based on Supervisor 4's performance during the last three post-training sessions. During those sessions, Supervisor 4 consistently implemented five of the eight feedback component skills at mastery level (i.e., implemented accurately on 80% or more opportunities). During the tailored-training session, the experimenter provided behavior-specific praise for skills that the supervisor implemented at mastery level during the last three sessions (e.g., the experimenter said, "You are perfect at providing instructions for how to correctly implement component skills that the therapist performed with less than 80% accuracy.").

During the last three post-training sessions, Supervisor 4 did not consistently implement three of the eight feedback component skills at mastery level (i.e., *describing incorrect performance, rationale for changing ineffective performance, and opportunity for questions).* For these skills, the experimenter provided a description of the incorrect performance, a rationale for changing ineffective performance, and instructions on how to implement the skill correctly (see Appendix B for tailored training script). Additionally, the experimenter modeled correct implementation of these skills and had the supervisor practice implementing the component skills through role play. The experimenter provided specific feedback to the supervisor about her performance during practice and continued to practice until the supervisor implemented all component skills with 100% accuracy. Finally, the experimenter asked the supervisor if she had any questions about the feedback she was given. Immediately after tailored training (within 10 min), we conducted a simulated-feedback session using procedures identical to baseline. Our mastery criterion for terminating tailored-training sessions was implementation of 88% of the component skills with accuracy above 80% in a session. Following tailored training, we conducted an additional post-training assessment with Supervisor 4.

Generalization probes. We assessed the extent to which supervisors' accuracy with implementing the eight component skills of providing performance feedback generalized when providing feedback to novel behavioral procedures and when providing feedback to an actual therapist without direct training. We assessed each supervisor's accuracy with implementing the components of performance feedback during baseline and following post-training sessions. We randomized presentation of the three generalization probes for each supervisor. The experimenter did not answer any questions or provide feedback on the supervisor's implementation of the component skills for providing performance feedback.

To assess generalization when providing feedback to novel behavioral procedures, we assessed each supervisor's accuracy with implementing the eight component skills when providing feedback to a confederate therapist on her implementation of DTT and mand-training procedures. At the start of the session, the experimenter provided the supervisor with a copy of a protocol, operational definitions, and datasheet to collect data on the confederate therapist's accuracy with implementing the procedure (i.e., either DTT or mand training). We gave the supervisor 10 min (or less if they indicated they were done) to review the materials. Next, the supervisor watched a simulated-session video and collected data on the therapist's accuracy with implementing the procedure. Within 10 min of watching the video, the experimenter instructed the supervisor to try their best to provide feedback on the confederate therapist's implementation of the procedure. While the supervisor provided feedback, the experimenter engaged in predetermined responses, including questions and errors when practicing the implementation of the procedure, using procedures identical to baseline.

During generalization probes with an actual therapist, the supervisor met briefly with a therapist, who was working with a child with ASD, handed the actual therapist a list of five tasks (e.g., stand-up, stack blocks, sit in chair) and asked him or her to try their best to get the child they were working with to complete those five tasks. Either the supervisor or the experimenter filmed the therapist while he or she instructed the child with ASD to complete the five tasks. In general, the supervisor did not say anything to the therapist or answer any questions while he or she was being filmed. However, on a few occasions the therapist indicated that they were done

when they had not yet finished all five tasks, so the supervisor had to remind the therapist which of the five tasks they still needed to complete with the child.

Immediately after filming the therapist working with his or her client, the experimenter provided the supervisor with materials needed to collect data on the therapist's accuracy with implementing the procedure (i.e., protocol, operational definitions, and datasheet) and gave 10 min (or less if they indicated they were done) for the supervisor to review them. The supervisor then watched the video of the actual therapist implementing the guided-compliance procedures and collected data on the therapist's accuracy with implementing the procedure. Within 10 min of watching the video, the supervisor brought the therapist to the conference room and provided feedback on his or her implementation of the guided-compliance procedure during the session. The experimenter was not present while the supervisor provided feedback to the actual therapist.

Follow-up probes. We conducted follow-up probes one month after a supervisor reached our mastery criterion during video-modeling or tailored training (Supervisor 4 only). The purpose of follow-up probes were to assess the extent to which supervisors' accuracy with implementing the feedback component skills maintained over time. We conducted a follow-up probe using procedures identical to baseline, during which the supervisor provided feedback to a confederate therapist on her implementation of the guided-compliance procedure. We also conducted a follow-up probe where the supervisor provided feedback to an actual therapist on his or her implementation of the guided-compliance procedures described above for generalization probes with an actual therapist.

Social validity. After completing post-training sessions, supervisors completed a socialvalidity questionnaire to assess the social acceptability of the procedures used in this study. The questionnaire was a modified version of the Treatment Acceptability Rating Form Revised (TARF-R) and included 10 items (Reimers & Wacker, 1992). The items addressed effectiveness of the procedures, disruptiveness of the training, and willingness to participate in training using the procedures again. We asked supervisors to indicate their level of agreement or disagreement with each item using a 6-point Likert-type scale with higher scores on an item indicating greater agreement with the statement and acceptability of the treatment (e.g., a score of one indicating *strongly disagree* and six indicating *strongly agree*) for a range of statements (e.g., "Due to this intervention, I feel more prepared to provide feedback in the future," and "This intervention fit into my usual routine with little disruption"). We included two open-ended questions, asking which aspects of the intervention the supervisor found most and least acceptable.

Results

The results for Supervisors 1 and 2 are depicted in Figure 1 and the results for Supervisors 3 and 4 are depicted in Figure 2. Figures 3 and 4 show an alternative depiction of the data from Figures 1 and 2, showing how we staggered sessions across supervisors within a multiple-baseline design. Table 5 shows the duration of training required for each activity during the video-modeling, tailored-training (Supervisor 4 only), and post-training sessions for each supervisor. Table 6 shows each supervisor's responses to the social-validity questionnaire.

The top two panels of Figure 1 show the results of Supervisor 1. The first panel shows the percentage of mastered component skills across baseline, video-modeling, post-training, generalization, and follow-up sessions. The second panel shows Supervisor 1's accuracy with implementing each individual component skill during each session (see Table 1 for a list of each numbered component skill). This alternative data display allows visual inspection of which component skills were implemented at mastery level (i.e., implemented accurately during 80% or more opportunities) during each session that was depicted in the first panel. Black boxes indicate

a component skill that the supervisor implemented accurately during 100% of opportunities during the session, striped boxes indicate a component skill the supervisor implemented with accuracy between 80% and 99%, gray boxes indicate accuracy between 50% and 79%, and white boxes indicate accuracy below 50%.

During baseline, Supervisor 1 only implemented Component Skill 1 (collects data accurately) at mastery level when providing feedback to a confederate therapist on her implementation of the guided-compliance procedure and DTT, and when providing feedback to an actual therapist implementing the guided-compliance procedure. Supervisor 1 did not implement any of the component skills at mastery level when providing feedback to a confederate therapist on her implementation of the mand-training procedure during baseline.

After viewing the video model, Supervisor 1 implemented 100% of the component skills at mastery level when providing feedback to a confederate therapist on her implementation of the guided-compliance procedure. During post-training sessions, Supervisor 1 continued to implement a high percentage of component skills at mastery level (M = 84%) and reached our mastery criterion (i.e., mastery of 88% of component skills across two consecutive sessions) following four sessions. Although Supervisor 1 reached our mastery criterion during posttraining sessions, she did not always implement Component Skills 3 (describes incorrect performance) and 4 (rationale for change) at mastery level (i.e., implemented accurately during 80% of opportunities in a session). Specifically, during post-training sessions, Supervisor 1 implemented Component Skill 3 at mastery level during two post-training sessions and Component Skill 4 at mastery level during one post-training session.

Following training, Supervisor 1 implemented a high percentage of component skills at mastery level during generalization probes. She implemented 75% of component skills at

mastery level when providing feedback to a confederate therapist on her implementation of novel behavioral procedures (i.e., DTT and mand training procedures). Supervisor 1 also implemented 88% of component skills at mastery level when providing feedback to an actual therapist on his or her implementation of the guided-compliance procedure. During the one-month follow-up probe, Supervisor 1 continued to implement 88% of component skills at mastery when providing feedback to a confederate therapist on her implementation of the guided-compliance procedure. Supervisor 1 did not implement Component Skill 3 (describes incorrect performance) at mastery level. Due to experimenter error for Supervisor 1, a one-month follow-up probe was not conducted with an actual therapist.

Table 5 depicts training time for each supervisor. Total time required to meet mastery was 127 min for Supervisor 1. Because the supervisors were already collecting data on the therapist's implementation of behavioral procedures as part of their responsibilities as a supervisor, we decided to also look at the training time required just to watch the video model and provide feedback. Duration of training (i.e., excluding reviewing protocols and collecting data on the therapist's accuracy of implementation) was 53 min for Supervisor 1.

The bottom two panels of Figure 1 show the results for Supervisor 2. The third panel shows the percentage of mastered component skills across sessions. The fourth panel shows Supervisor 2's accuracy with implementing each individual component skill during each session. During baseline, Supervisor 2 only implemented Component Skills 1 (collects integrity data) and 8 (opportunity for questions) at mastery level consistently when providing feedback to a confederate therapist on her implementation of the guided-compliance procedure. Supervisor 2 implemented 50% of component skills at mastery level when providing feedback to a confederate therapist on her implementation of DTT, implementing Component Skills 1, 3

(describes incorrect performance), 5 (instruction), and 8 at mastery. Supervisor 2 implemented 38% of component skills at mastery level when providing feedback to a confederate on her implementation of mand-training procedures and an actual therapist on his or her implementation of the guided compliance procedure. After viewing the video model, Supervisor 2 implemented a high percentage of component skills at mastery level, implementing all component skills at mastery level except Component Skill 3 (describes incorrect performance). During post-training sessions, Supervisor 2 continued to implement all component skills at mastery level, except for Component Skill 3. Supervisor 2 reached mastery criterion for post-training sessions after two sessions.

Following training, Supervisor 2 implemented a high percentage of component skills at mastery level during generalization probes. She implemented 75% of component skills at mastery level when providing feedback to a confederate therapist on her implementation of novel behavioral procedures (i.e., DTT and mand-training procedures). Supervisor 2 implemented 88% of component skills at mastery level when providing feedback to an actual therapist on his or her implementation of the guided-compliance procedure after training. During the one-month follow-up probes, Supervisor 2's implementation of the component skills maintained. Supervisor 2 implemented 88% of component skills at mastery level when providing feedback to a confederate therapist and an actual therapist on his or her implementation of the guided-compliance procedure all component skills, except for Component Skill 3 (describes incorrect performance) at mastery level. Table 5 depicts training time for each supervisor. Total time required to meet mastery was 72 min for Supervisor 2. Duration of training (i.e., excluding reviewing protocols and collecting data on the therapist's accuracy of implementation) was just 36 min for Supervisor 2.

The top two panels of Figure 2 depict the results of Supervisor 3. The first panel shows the percentage of mastered component skills across sessions. The second panel shows Supervisor 3's accuracy with implementing individual component skills during each session depicted in the first panel. During baseline, Supervisor 3 only implemented Component Skills 1 (collects data accurately), 2 (provides behavior-specific praise) and 3 (describes incorrect performance) accurately when providing feedback to a confederate therapist implementing the guidedcompliance and DTT procedures. Supervisor 3 only implemented Component Skill 1 and Component Skill 3 at mastery level when providing feedback to a confederate therapist implementing the mand-training procedures or an actual therapist implementing the guidedcompliance procedures during baseline. During video-modeling sessions (i.e., sessions conducted immediately after viewing the video model), the number of component skills that Supervisor 3 implemented correctly increased. Although Supervisor 3 implemented most component skills at mastery level, he did not always implement Component Skill 4 (rationale for change), Component Skill 5 (instruction), and Component Skill 8 (opportunity for questions) at mastery level and had to view the video model three times before reaching our mastery criterion during video-modeling sessions. During post-training sessions, Supervisor 3 continued to implement a high percentage of component skills at mastery level, requiring three post-training sessions to reach our mastery criterion. During post-training sessions, Supervisor 3 did not implement component skills 2 (provides behavior-specific praise), 3 (describes incorrect performance), and 4 (instruction) at mastery level during each session.

After training, the number of component skills implemented at mastery level during generalization probes increased. Supervisor 3 implemented 75% of component skills at mastery level when providing feedback to a confederate therapist on her implementation of DTT

procedures and an actual therapist on his or her implementation of the guided-compliance procedure. Supervisor 3's implementation of the component skills generalized to a lesser extent when providing feedback to a confederate on her implementation of the mand-training procedures, as he implemented 50% of component skills at mastery level. During the one-month follow-up probes, Supervisor 3 continued to implement a higher percentage of component skills at mastery level relative to baseline. Supervisor 3 implemented 75% of component skills at mastery levels when providing feedback to a confederate and 63% of component skills at mastery when providing feedback to an actual therapist on their implementation of the guidedcompliance procedure. When providing feedback to a confederate, Supervisor 3 did not implement Component Skills 2 (provides behavior-specific praise) and 4 (rationale for change) at mastery levels. When providing feedback to an actual therapist, Supervisor 3 did not implement Component Skills 3 (describes incorrect performance), 4, and 5 (instructions) at mastery level. Table 5 depicts training time for each supervisor. In total, training time required to meet mastery was 160 min for Supervisor 3. Duration of training (i.e., excluding reviewing protocols and collecting data on the therapist's accuracy of implementation) was 80 min for Supervisor 3.

The bottom two panels of Figure 2 show the results of Supervisor 4. The third panel shows the percentage of mastered component skills during each session. The fourth panel shows an alternative data display, depicting Supervisor 4's accuracy with implementing each individual component skill during each session. During baseline, Supervisor 4 only implemented Component Skill 1 (collects data accurately) at mastery level consistently when providing feedback to a confederate therapist on her implementation of the guided-compliance, mand-training, and DTT procedures and when providing feedback to an actual therapist on his or her implementation of the guided compliance procedures.

After viewing the video model, Supervisor 4 implemented an increased number of component skills at mastery level but required two viewings of the video model to meet the mastery criterion for video-modeling sessions. Supervisor 4 did not meet mastery criterion for after four sessions so we completed tailored training on the skills that she did not implement at mastery level consistently (i.e., describes incorrect performance, rationale for change, and opportunity for questions). During the tailored-training session, Supervisor 4 implemented every component skill at mastery level so we resumed post-training sessions. During post-training sessions, Supervisor 4 continued to implement a high percentage of component skills at mastery level and reached our mastery criterion after just two sessions. During generalization probes, Supervisor 4 implemented 88% of component skills at mastery level when providing feedback to a confederate therapist on her implementation of DTT and to an actual therapist on his or her implementation of the guided-compliance procedure. Supervisor 4 implemented 100% of component skills at mastery level when providing feedback to a confederate on her implementation of the mand-training procedures. During the one-month follow-up probe, Supervisor 4 continued to implement 100% of component skills at mastery when providing feedback to a confederate and 88% of component skills when providing feedback to an actual therapist on their implementation of the guided-compliance procedure. Table 5 depicts training time for each supervisor. Including tailored training, total training time required to meet mastery was 209 min for Supervisor 4. Duration of training (i.e., excluding reviewing protocols and collecting data on the therapist's accuracy of implementation) was 102 min.

Table 6 shows the responses of each supervisor to the social validity questionnaire. On a 6-point scale with one indicating lower acceptability and six indicating higher acceptability of the intervention, the average rating across questions was 5.26 (*range*, 4.3 to 6). Supervisors 1, 2,

and 4 responded to each item with an acceptability score of 4 or higher (i.e., *slightly agree*, *agree*, or *strongly agree*). Supervisor 3 responded with acceptability scores within this range, as well, with the exception of one item. Supervisor 3 responded with an acceptability score of 1 (i.e., *strongly disagree*) in response to the item "I do not see any strong disadvantage in participating in this training." Overall, ratings of treatment acceptability were high, suggesting that this was a socially acceptable intervention.

Discussion

The present study evaluated the effect of watching a video model on supervisors' accuracy with implementing performance-feedback procedures. We found that video modeling alone could be effective at teaching supervisors to provide performance feedback on a guidedcompliance procedure. Watching the video model alone was sufficient to produce mastery-level responding for three of four supervisors. The current study extends the literature on both video modeling and training supervisory skills by demonstrating that video modeling can be effective when teaching supervisors to provide performance feedback.

For the remaining supervisor (Supervisor 4), video modeling was effective at increasing accuracy above baseline, but the supervisor did not meet our mastery criterion until we provided tailored training. However, after we provided tailored training on skills that the supervisor did not implement consistently, she immediately reached mastery level responding with all eight performance feedback component skills. These findings replicate previous research, suggesting that when video modeling alone is not effective, brief tailored training may result in increases in accuracy for the remaining skills (Higgins et al., 2017).

Previous studies have trained supervisors to provide performance feedback through extensive didactic instruction (e.g., Parsons and Reid, 1995). Though effective, didactic instruction can be time consuming and requires that a trainer be present. In other areas of staff training, past research has suggested that video modeling may reduce training time for a variety of skills (e.g., Lipschultz et al., 2015; Vladescu et al., 2012). In the current study, training was brief. Supervisor 2 reached our mastery criterion following approximately 30 min of training. Even when tailored training was required to meet mastery, Supervisor 4 reached our mastery criterion in approximately 90 minutes. These durations of training are brief when compared to the time required in past studies teaching supervisory skills, which totaled between four and eight hours (Jerome, Kaplan, & Sturmey; Parsons & Reid, 1995). It should be noted that we summarized the data without including reviewing the protocols and collecting data on the accuracy of the therapist's implementation of the procedure. In their role as a supervisor, the therapists were expected to regularly observe therapists working with clients and collect data on their accuracy with implementing behavioral procedures. However, if we include those activities, total training time still only required between one and three and a half hours. Even for this brief training, an actual trainer did not have to be present. Though a confederate therapist was present, she did not provide feedback on supervisors' implementation of the component skills. In the current study, the first author served as the confederate. However, the confederate could be role played by another individual with minimal training. Compared to previous studies, the current methods required less time-intensive involvement by a well-trained individual.

Additionally, the current study evaluated generalization of the component skills of performance feedback in two ways. Specifically, we assessed supervisors' accuracy with implementing the performance-feedback procedures when providing feedback on novel behavioral procedures and when providing feedback to an actual therapist, rather than a confederate therapist. When assessing both types of generalization, all supervisors showed increases in accuracy relative to baseline. All four supervisors implemented the similar percentages of component skills at mastery level when providing feedback to an actual therapist as they did when providing feedback to a confederate therapist on his or her implementation of the guided-compliance procedures. These results suggest that once supervisors were trained to provide feedback to a confederate therapist, their skills generalized to providing feedback to an actual therapist in the early-intervention clinic.

Supervisors' accuracy with implementing the component skills generalized to a lesser extent when providing feedback on novel behavioral procedures. During probes with novel procedures, three out of four supervisors implemented performance-feedback procedures with similar levels of accuracy when providing feedback to a confederate therapist on his or her implementation of both the DTT and mand-training procedures. Though Supervisor 3 implemented a higher percentage of component skills at mastery level relative to baseline when providing feedback on the mand-training procedures, he implemented a lower percentage of component skills at mastery levels, relative to sessions where he was providing feedback on a therapist's implementation of the other procedures (i.e., guided compliance and DTT). These results suggest that for some supervisors, training to provide feedback on a therapist's implementation of the guided-compliance procedure may be sufficient to produce improvement when providing feedback on other procedures.

Supervisors rated the social validity of the intervention fairly high, with particularly strong agreement for the question "I think this training benefited me more than harmed me." For Supervisors 1, 2 and 4, the ratings ranged from *slightly agree* to *strongly agree* for statements such as "I think this type of training would be suitable for most clinical settings" and "I would recommend this training procedure to others." Supervisor 3 provided ratings similar to

Supervisors 1, 2, and 4 (i.e., ranging from *slightly agree* to *strongly agree*) with the exception of one rating. Supervisor 3 indicated *strongly disagree* in response to the question "I did not see any strong disadvantage to participating in this training." The supervisor's responses to the open-ended questions on the social-validity questionnaire suggest that he may have preferred conducting feedback sessions with an actual therapist, rather than simulated sessions with a confederate therapist.

We chose to conduct simulated sessions with a confederate therapist during training for two reasons. First, using a confederate therapist ensured that we did not expose the actual therapists in the clinic to low-quality feedback any more than necessary. Past research has suggested that exposure to inaccurate feedback can be detrimental to acquisition of skills (Hirst et al., 2013) and so limiting exposure to poor feedback may be important. Second, using simulated sessions allowed us to expose the supervisor to a variety of therapist and child responses. Each simulated-session video had four to five skills that were implemented with accuracy above 80% and four to five skills that were implemented with accuracy below 80%, ensuring that the supervisor had several opportunities to implement each component skill of performance feedback. When conducting generalization probes with an actual therapist, they correctly implemented between three and five component skills and incorrectly implemented between one and five component skills. Thus, the number of errors we programmed in our simulated sessions were consistent with what actual therapists were doing in the clinic.

Additionally, by varying the errors that the simulated therapist made, we ensured that the supervisor could provide feedback on a variety of errors. During generalization probes with the actual therapist, there was little variability in child responding. If we had chosen to use actual-therapist sessions for training, this lack of variability would limit the errors that the supervisor

was exposed to. For example, none of the children ever engaged in problem behavior during our sessions for generalization probes, so a supervisor would not have had the opportunity to provide feedback to a therapist who did not withhold praise following problem behavior. All supervisors implemented the performance-feedback procedures with similar accuracy when providing feedback to an actual therapist, suggesting that this format did not hinder acquisition of the skill.

One potential limitation to our study was our mastery criterion. Specifically, a supervisor had to implement 88% (i.e., seven of eight) component skills accurately on above 80% of opportunities to meet our mastery criterion. There were two aspects of the criterion that allow supervisors to meet mastery, while still making errors with implementing the component skills of performance feedback. First, the supervisor could have met the mastery criterion even if they implemented a single component skill with accuracy below mastery (i.e., 80%). Second, by requiring that a supervisor implement a component skill accurately on 80% of opportunities, the supervisor may have made an error on a component skill while still meeting mastery criterion for that skill. However, due to the relatively low number of component skills in each procedure (i.e., ten for guided-compliance and DTT procedures and eleven for mand-training procedures), each supervisor had between three and five opportunities to perform each component skill of performance feedback (e.g., providing behavior-specific praise or providing instructions on correct implementation). For component skills that the supervisor had limited opportunities to implement, accuracy may be heavily influenced by few errors. For example, Supervisor 2 provided a demonstration of correct implementation on 75% (i.e., below mastery) of opportunities during Session 13. During that session, however, the therapist had only implemented four component skills of the guided-compliance procedure with accuracy below 80%, so the supervisor only had four opportunities to provide a demonstration of correct

implementation. Omitting a single demonstration of correct implementation (i.e., feedback on implementation of one component skills) resulted in accuracy of 75% for that component skill. Given the limited number of opportunities to implement each component skill, the mastery criterion of 80% of opportunities seems reasonable and constitutes a stringent response requirement. Additionally, by summarizing the supervisor's accuracy with implementing each component skill separately, we were able to monitor performance across each individual component skill.

Another potential limitation is that we did not collect data on qualitative aspects of the feedback. While the feedback needed to be accurate to be scored as correct, we did not assess clarity of the feedback. Anecdotally, for some supervisors, qualitative aspects of feedback improved after viewing the video model. For other supervisors, they began including the eight component skills of performance feedback (e.g., providing behavior specific praise and describing incorrect performance), but the feedback was not always clear and consumable, even following training. For example, Appendix C includes session transcripts of Supervisor 2. Supervisor 2 provided feedback to a confederate therapist during baseline by stating "Make sure that you present your instruction once. So, you're going to give an instruction, then you're going to count in your head to 5 s and then you're going to give the model prompt. So, you don't want to give two instructions before the model prompt." After training, Supervisor 2 provided feedback to an actual therapist on that same skill, by stating "Another thing was to present the instruction once. So, you'll give the instruction and then if she doesn't comply within 5 s then you'll do the model...That way, we're following through but without unnecessary demands in between." Though the supervisor accurately provided feedback during both sessions, the feedback that Supervisor 2 provided after training was more clear and direct. Following training,

all supervisor's accuracy with implementing the feedback component skills increased, however, the clarity and descriptiveness of that feedback varied. Future research should consider evaluating the qualitative aspects of feedback using both qualitative and quantitative methods. One method could be to allow a therapist to rate the feedback in terms of helpfulness or clarity and assess intervention strategies targeting these qualitative aspects.

A final limitation of the current study is that we evaluated supervisor feedback but did not evaluate the influence of that feedback on therapist responding, or more importantly child outcomes. Studies have demonstrated that quality feedback can improve treatment integrity (e.g., Jerome et al., 2014) and that treatment integrity failures can be detrimental to child outcomes (e.g., Wilder et al., 2006). Though that was not the purpose of the current study, to truly evaluate the effectiveness of this intervention, future research needs to evaluate the extent to which providing training to supervisors on providing feedback can impact therapist's treatment integrity and child outcomes. Ideally, a study should be conducted which includes measures of performance across each level (i.e., supervisor implementation of performance feedback, therapist implementation of intervention and child's responding within the intervention).

In addition to addressing the limitations of the present study, future research should evaluate the maintenance of the component skills of performance feedback over time. Specifically, studies should evaluate what additional supports must be put in place to ensure that supervisors continue to provide feedback with high levels of accuracy. Delayed outcomes, such as improved performance of therapists or child improvements, may not be sufficient to maintain accurate implementation of the component skills. If research suggests that delayed improvements are insufficient, it may be necessary for clinics to establish reward systems for providing accurate feedback. Lastly, though there has been some research in this area (e.g., Arco, 2008), further research is needed on the quantity and distribution (e.g., weekly or monthly) of feedback that is required to affect behavior change for therapists implementing behavioral interventions. Future studies should compare therapist's acquisition of component skills of behavioral procedures across frequency of supervision and feedback schedules to be able to arrange a more effective feedback system.

In conclusion, this study serves as a first step by demonstrating that video modeling can be effective at increasing accuracy of supervisors when implementing performance-feedback procedures. There is still much to be done to evaluate the impact of training supervisors to provide performance feedback. Only by conducting research that examines the therapist and child outcomes can we evaluate what level of accuracy (i.e., inclusion of components rather than correctness) is required to affect behavior change and what aspects of feedback (e.g., providing behavior-specific praise, providing a demonstration of correct implementation) are effective at improving therapist's treatment integrity. Additional studies should replicate the use of video modeling to train supervisors to provide performance-feedback and extend its implications through examining the impact of the training on broader clinical issues, such as treatment integrity and child outcomes.

References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.
- Alvero, A. M., Bucklin, B. R., & Austin, J. (2001). An objective review of the effectiveness and essential characteristics of performance feedback in organizational settings. *Journal of Organizational Behavior Management*, 21, 3-29. doi:10.1300/j075v21n01_02
- Arco, L. (2008). Feedback for improving staff training and performance in behavioral treatment programs. *Behavioral Interventions*, 23, 39-64. doi:10.1002/bin.247
- Arco, L., & Birnbrauer, J. S. (1990). Performance feedback and maintenance of staff behavior residential settings. *Behavioral Interventions*, 5, 207-217. doi:10.1002/bin.2360050307
- Bourret, J., Vollmer, T. R., & Rapp, J. T. (2004). Evaluation of a vocal mand assessment and vocal mand training procedures. *Journal of Applied Behavior Analysis*, 37, 129-144. doi:10.1901/jaba.2004.37-129
- Carroll, R. A., Kodak, T., & Fisher, W. W. (2013). An evaluation of programmed treatmentintegrity errors during discrete-trial instruction. *Journal of Applied Behavior Analysis*, 46, 379-394. doi:10.1002/jaba.49
- Cook, J. E., Subramaniam, S., Brunson, L. Y., Larson, N. A., Poe, S. G., & St. Peter, C. C.
 (2015). Global Measures of Treatment Integrity May Mask Important Errors in Discrete-Trial Training. *Behavior Analysis in Practice*, *8*, 37–47. http://doi.org/10.1007/s40617-014-0039-7
- DiGennaro Reed, F. D., & Henley, A. J. (2015). A survey of staff training and performance management practices: the good, the bad, and the ugly. *Behavior Analysis in Practice*, 8, 16–26. http://doi.org/10.1007/s40617-015-0044-5

- Gil, P. J., & Carter, S. L. (2016). Graphic feedback, performance feedback, and goal setting increased staff compliance with a data collection task at a large residential facility. *Journal of Organizational Behavior Management*, *36*, 56-70. doi:10.1080/01608061.2016.1152207
- Green, G., Brennan, L. C., & Fein, D. (2002). Intensive behavioral treatment for a toddler at high risk for autism. *Behavior Modification*, *26*, 69-102. doi:10.1177/0145445502026001005
- Higgins, W. J., Luczynski, K. C., Carroll, R. A., Fisher, W. W., & Mudford, O. C. (2017).
 Evaluation of a telehealth training package to remotely train staff to conduct a preference assessment. *Journal of Applied Behavior Analysis*, 50, 238-251. doi:10.1002/jaba.370
- Hirst, J. M., DiGennaro Reed, F. D., & Reed, D. D. (2013). Effects of varying feedback accuracy on task acquisition: a computerized translational study. *Journal of Behavioral Education*, 22, 1–15. https://doi.org/10.1007/s10864-012-9162-0
- Horner, R. D., & Keilitz, I. (1975). Training mentally retarded adolescents to brush their teeth. Journal of Applied Behavior Analysis, 8, 301-309. doi: 10.1901/jaba.1975.8-301
- Jensen, J., Parsons, M., & Reid, D. (1998). Supervisory training for teachers: multiple, long-term effects in an education program for adults with severe disabilities. *Research in Developmental Disabilities*, 19, 449-463. doi:10.1016/s0891-4222(98)00017-1
- Jerome, J., Kaplan, H., & Sturmey, P. (2014). The effects of in-service training alone and inservice training with feedback on data collection accuracy for direct-care staff working with individuals with intellectual disabilities. *Research in Developmental Disabilities*, 35, 529-536. doi:10.1016/j.ridd.2013.11.009
- Lipschultz, J. L., Vladescu, J. C., Reeve, K. F., Reeve, S. A., & Dipsey, C. R. (2015). Using video modeling with voiceover instruction to train staff to conduct stimulus preference

Assessments. Journal of Developmental and Physical Disabilities, 27, 505-532. doi:10.1007/s10882-015-9434-4

- Lovaas, O. I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 3-9. doi:10.1037/0022-006x.55.1.3
- Luiselli, J. K. (2007). Effects of a performance management intervention on frequency of behavioral supervision at a specialized school for students with developmental Disabilities. *Journal of Developmental and Physical Disabilities*, 20, 53-61. doi:10.1007/s10882-007-9079-z
- Kodak, T., & Clements, A. (2009). Acquisition of mands and tacts with concurrent echoic training. *Journal of Applied Behavior Analysis*, 42, 839-843. doi:10.1901/jaba.2009.42-839
- Matson, J. L., Tureck, K., Turygin, N., Beighley, J., & Rieske, R. (2012). Trends and topics in early intensive behavioral interventions for toddlers with autism. *Research in Autism Spectrum Disorders*, 6, 1412-1417. doi:10.1016/j.rasd.2012.02.010
- Miles, N. I., & Wilder, D. A. (2009). The effects of behavioral skills training on caregiver implementation of guided compliance. *Journal of Applied Behavior Analysis*, 42, 405-410. doi:10.1901/jaba.2009.42-405
- Nigro-Bruzzi, D., & Sturmey, P. (2010). The effects of behavioral skills training on mand training by staff and unprompted vocal mands by children. *Journal of Applied Behavior Analysis*, 43, 757-761. doi:10.1901/jaba.2010.43-757

- Parsons, M. B., & Reid, D. H. (1995). Training residential supervisors to provide feedback for maintaining staff teaching skills with people who have severe disabilities. *Journal of Applied Behavior Analysis*, 28, 317-322. doi:10.1901/jaba.1995.28-317
- Pence, S. T., & Peter, C. C. (2015). Evaluation of treatment integrity errors on mand acquisition. Journal of Applied Behavior Analysis, 48, 575-589. doi:10.1002/jaba.238
- Peterson, L., Homer, A. L., & Wonderlich, S. A. (1982). The integrity of independent variables in behavior analysis. *Journal of Applied Behavior Analysis*, 15, 477-492. doi:10.1901/jaba.1982.15-477
- Reichow, B. (2012). Overview of meta-analyses on early intensive behavioral intervention for young children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 42, 512-520. doi:10.1007/s10803-011-1218-9
- Sarokoff, R. A., & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis*, 37, 535-538. doi:10.1901/jaba.2004.37-535
- Smith, T. (2001). Discrete trial training in the treatment of autism. *Focus on Autism and Other* Developmental Disabilities, 16, 86-92. doi:10.1177/108835760101600204
- Sterling-Turner, H. E., Watson, T. S., Wildmon, M., Watkins, C., & Little, E. (2001).
 Investigating the relationship between training type and treatment integrity. *School Psychology Quarterly*, *16*, 56-67. doi:10.1521/scpq.16.1.56.19157
- Vladescu, J. C., Carroll, R., Paden, A., & Kodak, T. M. (2012). The effects of video modeling with voiceover instruction on accurate implementation of discrete-trial instruction. *Journal of Applied Behavior Analysis*, 45, 419-423. doi:10.1901/jaba.2012.45-419

- Ward-Horner, J., & Sturmey, P. (2012). Component analysis of behavior skills training in functional analysis. *Behavioral Interventions*, 27, 75-92. doi:10.1002/bin.1339
- Wilder, D. A., & Atwell, J. (2006). Evaluation of a guided-compliance procedure to reduce noncompliance among preschool children. *Behavioral Interventions*, 21, 265-272. doi:10.1002/bin.222
- Wilder, D. A., Atwell, J., & Wine, B. (2006). The Effects of Varying Levels of Treatment
 Integrity on Child Compliance during Treatment with a Three-Step Prompting Procedure.
 Journal of Applied Behavior Analysis, 39, 369-373. doi:10.1901/jaba.2006.144-05
- Wilder, D. A., Fischetti, A. T., Myers, K., Leon-Enriquez, Y., & Majdalany, L. (2013). The effect of response effort on compliance in young children. *Behavioral Interventions*, 28, 241-250. doi:10.1002/bin.1362

Performance-Feedback Component Skills

	Dependent Measures	Operational Definition			
1. 2.	Collects Data Accurately Provides Behavior-Specific Praise	Supervisor collects data on correct implementation of the procedure being observed which aligns with the data of a trained observer with interobserver agreement of at least 80%. Supervisor provides behavior-specific praise for each component skill that the therapist performed with accuracy above 80% during the session.			
3.	Describes Incorrect Performance	Supervisor describes each of the component skills that the therapist performed with accuracy below 80% during the session.			
4.	Rationale for Change	Supervisor provides a rationale for changing ineffective performance for each of the component skills that the therapist performed with accuracy below 80% during the session.			
5.	Instruction	Supervisor provides instructions for how to improve each of the component skills that the therapist performed with accuracy below 80% during the session.			
6.	Demonstration	Supervisor provides a model of correct implementation of each of the component skills tha the therapist performed with accuracy below 80% during the session.			
7.	Opportunity for Practice	Supervisor provides an opportunity for the therapist to practice each of the component skills that the therapist performed with accuracy below 80% during the session. Supervisor has the therapist continue to practice until the therapist implements each of the component skills correctly.			
8.	Opportunity for Questions	Supervisor solicits questions from the therapist after providing feedback on correct or incorrect performance.			

Guided-Compliance Procedure Component Skills

	Dependent Measures	Operational Definition			
1.	Attending	The trainee is facing the child and within the child's line of sight when providing the instruction.			
2.	Presents Clear Instruction	The trainee presents a brief and clear instruction that is not phrased in the form of a question and does not include any unnecessary words or the child's name.			
3.	Presents One-Step Instruction	The therapist presents only one, one-step instruction at a time.			
4.	Presents Instruction Once	The therapist presents the instruction only once in the absence of an additional prompt.			
5.	Model Prompt	If the child does not comply within 5 s $(+/-2 s)$ of the instruction, the therapist repeats the instruction while modeling compliance.			
6.	Physical Prompt	If the child does not comply within 5 s $(+/-2 s)$ of the model prompt, the therapist repeats the instruction while physically guiding the child to comply with the instruction.			
7.	Keeps the Demand in Place	The therapist does not present a new instruction until the child complies with the original instruction.			
8.	Praise Following Compliance	The therapist provides behavior specific praise immediately (within 2 s) following compliance to the initial instruction or the model prompt.			
9.	Withholds Praise for a Physical Prompt	The therapist does not provide praise following compliance with a physical prompt.			
10.	Withholds Praise Following Problem Behavior	The therapist does not provide praise following compliance if it occurs within 5 s of an actual or attempted instance of problem behavior (e.g., aggression, property destruction, or self- injurious behavior).			

Discrete-Trial Training Component Skills

	Dependent Measures	Operational Definition		
1.	Establishes Ready Behavior	Therapist waits to present the instruction until the child is sitting with his/her bottom in the chair, is oriented towards the therapist or instructional material, and is not engaging in any disruptive movements with his/her hands and feet.		
2.	Instruction	Therapist delivers the instruction as specified in the child specific protocol, without any additional words including the child's name.		
3.	Reinforcer Delivery	The therapist provides praise and a token immediately following a correct response to the initial instruction (within 1s). If tangible reinforcement is removed for error- correction trials, then the therapist provides praise only for a correct response during an error-correction trial.		
4.	Prompt Delivery	Therapist delivers a model or physical prompt immediately following an error (within 1s) or following no response within the scheduled prompt-delay (+/- 2 s)		
5.	Error Correction	Following a model or physical prompt, the therapist removes instructional materials, turns away from the child for 1s, and the re-presents the trial. The therapist continues to re-present the trial until the child responds correctly to the initial instruction or until the therapist has re-presented the trial 5 times without a correct response.		
6.	Token Exchange	Once the child fills his or her token board the therapist provides praise and immediate access to a preferred tangible item (within 2s).		
7.	Reinforcement Duration	The therapist lets the child play with the tangible item for the correct duration $(+/-5 \text{ s})$		
8.	Ignore Problem Behavior	The therapist attempts to block problem behavior (e.g., prevent the child from sweeping materials off the table). Following problem behavior, the therapist does not comment on the problem behavior. If problem behavior occurs during an inter-trial interval, the therapist does not delay the onset of the next demand (i.e., a demand is presented within 2s). If problem behavior occurred when a		

		demand was in place, the therapist does not remove the demand.
9.	Inter-trial Interval	Therapist presents the next trial within 2 s $(+/-2 s)$ of the end of the last trial or the removal of a preferred item following a reinforcement interval.
10.	Data collection	The therapist collects data following the end of one trial and before the start of the next trial.

Dependent Measures Operational Definition Presents Choice Trial If the child does not initiate play with an item (i.e., 1 picks it up independently) within 10 s (+/-5 s), the therapist holds up one or more items within the child's view. 2. Additional Choice after No If the child does not reach for any toy when a choice is provided within 10 s (+-5 s) the therapist presents a Selection different choice of toys. Therapist allows child to play with an item that they 3. Brief Access Following picked up independently or selected from a choice Selection trial for 10 s (+/-5 s) and then removes from child's reach. Choice After no Interaction If at any time the child stops interacting with a 4. selected item or attempts to access items other than the item that the therapist is restricting access to, the therapist presents another choice of toys. Therapist allows 10 s (+/- 5 s) for an independent 5. **Opportunity for Independent** Mand mand (i.e., provides no prompt). 6. Provides Non-specific Prompt Therapist provides a non-specific prompt after 10 s (+/- 5 s) with no mand (e.g., "What would you like?" or "What do you need?") and allows 10 s for an independent mand. 7. **Provides Model Prompt** Therapist labels the item to provide a model after 10 s (+/-5 s) with no mand following a non-specific prompt. 8. **Response to Errors** Therapist provides a model prompt following any error (i.e., a word that does not correspond to the item or an approximation of the word that is not listed on the child's approximation sheet). Therapist provides immediate access to the requested 9. Reinforcement item for 20 s (+/- 5 s) following an acceptable approximation of the mand (including spontaneous mands) based on the child-specific definitions. Therapist does not provide requested item or attention **Response to Problem Behavior** 10. within 10 s (+/- 5 s) of problem behaviors, as defined by the child-specific protocols, regardless of manding. 11. Data Collection Therapist records any spontaneous and independent mands within 10 s (+/-5 s) of occurrence in the manner appropriate to child-specific protocols (i.e., pre-made paper datasheets or clicker tally).

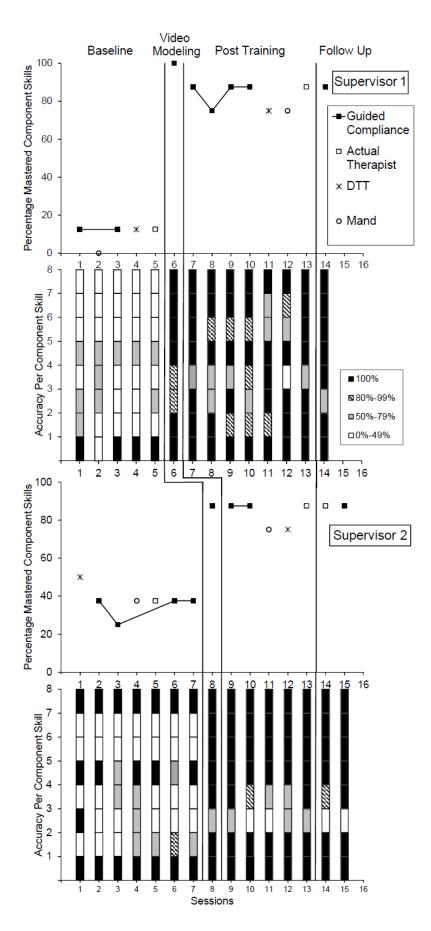
Mand-training Procedures Component Skills

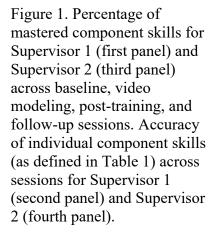
Duration of Training Required for Each Activity During Video-modeling, Tailored-Training, and Post-training Sessions across Supervisors

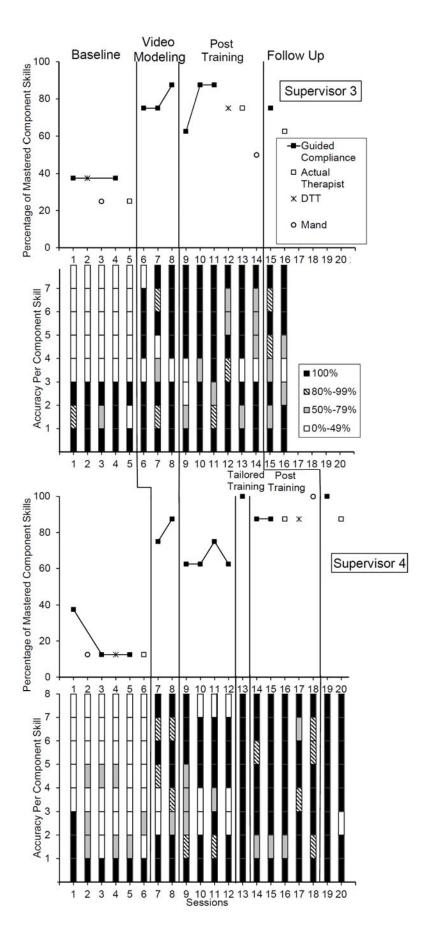
		Supervisor		
Training Activity	1	2	3	4
Reviewing Protocols and Collecting Treatment Integrity Data	74.2	35.8	80.1	107.0
Viewing video Model	14.9	15.0	45.1	30.1
Tailored Training	NA	NA	NA	19.9
Providing Feedback to Confederate	38.2	21.0	34.5	52.3
Total Time	127.3	71.8	159.7	209.3
Training Time (with reviewing protocols and collecting treatment integrity data removed)	53.1	36.0	79.6	102.3

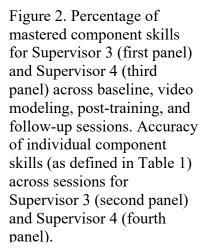
Supervisor Responses on a 6-Point Likert-Type Scale for Each Item of the Social Validity Questionnaire With Higher Scores indicating Greater Agreement with the Statement

			Supervisor			
	Question	Μ	1	2	3	4
1.	I liked the training procedure used.	5.3	5	6	5	5
2.	The skills I learned through participating in this training will make permanent changes in the way that I implement the behavioral procedure.	5.5	6	6	5	5
3.	I did not see any strong disadvantage in participating in this training.	4.3	6	6	1	4
4.	I think this training benefited me more than harmed me.	6.0	6	6	6	6
5.	After training, I feel more confident in my ability to accurately implement the behavioral procedure.	5.0	4	6	5	5
6.	I would be willing to participate in this type of training to learn additional scores.	5.0	5	6	5	4
7.	I think that training procedures were effective at teaching me to implement the behavioral procedure.	5.0	4	6	5	5
8.	I think this type of training would be appropriate for teaching clinical skills to a variety of individuals.	5.5	6	6	6	4
9.	I think the training procedures used would be suitable for most clinical settings.	5.5	6	6	5	5
10	I would recommend this training procedure to others.	5.5	6	6	5	5









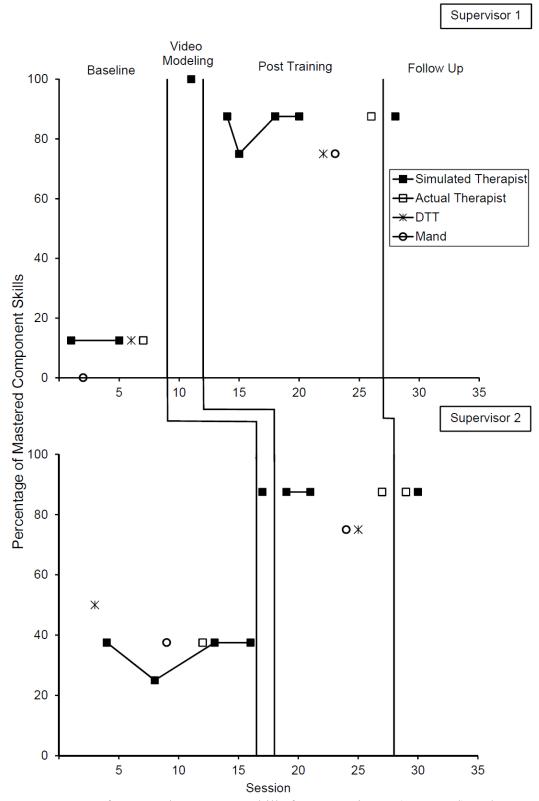


Figure 3. Percentage of mastered component skills for Supervisor 1 (top panel) and Supervisor 2 (bottom panel) across baseline, video modeling, post-training, and follow-up sessions graphed to show session sequence within a multiple-baseline design.

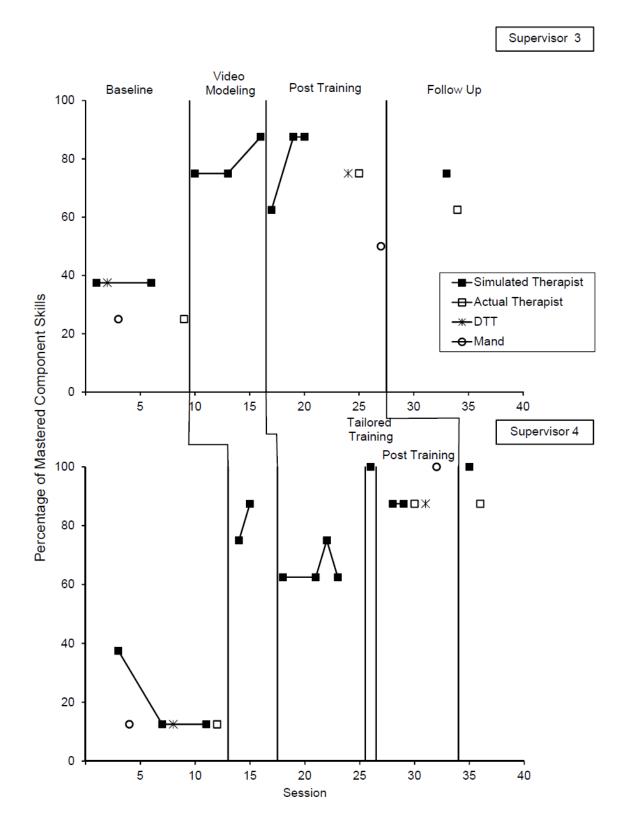


Figure 4. Percentage of mastered component skills for Supervisor 3 (top panel) and Supervisor 4 (bottom panel) across baseline, video modeling, post-training, and follow-up sessions graphed to show session sequence within a multiple-baseline design.

Appendix A

Feedback Video Model with Embedded Voice-Over Script

*Note: Spoken words are written in italics. Text in bold denotes a title screen that is visible while the narrator is speaking. Text in brackets denotes a vide

o clip. If the text in brackets is underlined, that means that the narrator is speaking those lines while the clip below is playing. If the text in brackets is not underlined, the narrator is not speaking while the clip is playing.

Providing Performance Feedback

In this video I will review the steps for providing performance feedback to a therapist for the purpose of implementing a guided compliance procedure. Performance feedback is made up of 7 steps.

Step 1: Collect treatment-integrity data

First you need to collect treatment-integrity data on the therapist implementation of the guided compliance procedure.

[SCENE OF SUPERVISOR READING THROUGH DEFINITIONS]

Review the operational definitions for each component skill required to implement the guided-compliance procedure.

[SCENE OF SUPERVISOR FILLING OUT DATA SHEET. ZOOM IN ON THE DATASHEET SO THAT ALL PARTS OF THE DATASHEET ARE CLEARLY VISABLE. HOLD SHOT FOR 15 SECONDS]

While you are observing the therapist implement the procedure record a plus, minus or not applicable for each component skill. Use the comment section of the data sheet to write down any additional notes or details that you think will be useful when you are meeting with the therapist to provide feedback

Guided Compliance Procedure Observation

Now you will watch a video clip of a therapist implementing the guided-compliance procedure. The therapist will present five instructions to a child and will engage in various correct and incorrect responses.

[ZOOM IN ON THE COMPLETED DATASHEET THAT IS IN EACH PARTICIPANTS HANDOUT]

In the handout you received you were given a copy of a completed data sheet for this observation. Follow along and after you watched the video clip, I will walk you through the remaining steps required to provide performance feedback.

[VIDEO OF FULL SESSION OF THERAPIST IMPLEMENTING THE GUIDED COMPLIANCE PROCEDURE]

Step 1: Collect treatment-integrity data

After you have observed the therapist implementing the guided-compliance procedure and have completed your datasheet,

[VIDEO CLIP OF SUPERVISOR SITTING AT THE TABLE WITH A PEN AND CALCULATOR, CALCULATING THE PERCENTAGE CORRECT AND THE TOTAL PERCENTAGE CORRECT]

Calculate the percentage correct for each skill by taking the number correct divided by the number of opportunities to implement that skill and multiply it by 100. Next calculate total integrity by taking the total number of correct responses from that session divided by the number of opportunities to implement any skill and multiply it by 100.

Time to Meet with the Therapist

Now it is time to meet with the therapist and proved feedback. You should meet in a private place away from other therapists, ideally you should provide feedback immediately following your observation; however, if something prevents you from providing feedback immediately then at a minimum you should provide feedback to the therapist at the end of his or her shift.

[VIDEO CLIP OF THERAPIST LOOKING THROUGH DATASHEETS ON THE CLIP BOARD. SUPERVISOR WALKS UP TO THERAPIST AND ASKS HER IF SHE CAN PROVIDE FEEDBACK (SEE SPECEIFIC SCRIPT FOR THE VIDEO CLIP). THE CLIP ENDS WITH THE TWO OF THEM WALKING OVER TO THE TABLE]

Step 2: Provides behavior-specific praise.

Provide behavior-specific praise for each component of the guided-compliance procedure that the therapist performed correctly during 80% or more of opportunities during the observation. Don't forget to label the component skill that the therapist performed correctly in your praise statement.

In the video you just watched the therapist made sure that the child was attending before presenting an instruction during 80% of the opportunities. In this clip you will see the supervisor provide behavior-specific praise.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "NATALIE (THERAPIST'S NAME), YOU DID AN EXCELLENT JOB MAKING SURE THAT AUBREY (CONFEDERATE CHILD'S NAME) WAS ATTENDING TO YOU BEFORE YOU PRESENTED AN INSTRUCTION." THERAPIST NODS AND SMILES]

Step 3: Describe incorrect performance

Describe each component skill of the guided-compliance procedure that the therapist performed with less than 80% accuracy during the observation.

In the video you just watched the therapist provided clear instruction on only 40% of the opportunities. In this clip you will see the supervisor describe the therapist's incorrect performance.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "WHILE I WAS OBSERVING, I NOTICED THAT YOU DID NOT ALWAYS PROVIDE A CLEAR INSTRUCTION. SOMETIMES YOU INCLUDED AUBREY'S NAME IN THE INSTRUCTION, AND SOMETIMES YOU PHRASED THE INSTRUCTION AS A QUESTION. FOR EXAMPLE, ON ONE TRIAL YOU SAID, 'CAN YOU PUT THE APPLE IN THE BASKET?']

Step 4: Provide a Rationale for Behavior Change

After describing the therapist's incorrect performance, you should provide a brief rationale for changing ineffective performance by highlighting why it's important to implement a specific component skill correctly. You should provide a rationale for behavior change for each component skill the therapist performed less than 80% accuracy during the observation.

In the next clip the supervisor will provide a rationale for presenting a clear instruction.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "WHEN YOU PRESENT AN INSTRUCTION IT'S IMPORTANT TO KEEP THE INSTRUCTION BRIEF WITHOUT ADDING EXTRA WORDS, LIKE HER NAME, BECAUSE WE WANT TO MAKE SURE THE AUBREY UNDERSTANDS WHAT WE ARE ASKING HER TO DO. IT'S ALSO IMPORTANT THAT WE DON'T WORD OUR INSTRUCTIONS IN THE FORM OF A QUESTION, BECAUSE WE WANT TO BE CLEAR TO AUBREY THAT NEEDS TO FOLLOW OUR INSTRUCTIONS, IT'S NOT A CHOICE. WHEN YOU ASK IT IN THE FORM OF A QUESTION, LIKE 'CAN YOU PLEASE PUT THE APPLE IN THE BASKET,' THEN IF SHE SAID 'NO' THAT WOULD BE AN APPROPRIATE RESPONSE." THERAPIST NODS AND SAYS, "THAT MAKES SENSE."]

Step 5: Provide Instructions

After providing a rationale after why behavior should change you should provide instructions to the therapist on how to implement the component skill correctly. Provide instructions for each component skill that the therapist performed with less than 80% accuracy during the observation.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "NEXT TIME YOU PRESENT AN INSTRUCTION, MAKE SURE YOU DON'T PHRASE IT IN THE FORM OF A QUESTION, AND THAT YOU DON'T INCLUDE ANY UNECESSARY WORDS LIKE THE CHILD'S

NAME. FOR EXAMPLE, IF I WANTED YOU TO HAND ME THE APPLE, I WOULD SAY, 'GIVE ME THE APPLE.'"]

Other Component Skills

So far, I have reviewed the first five steps of providing performance feedback on a therapist implementation of 2 of the 10 component skills for the guided-compliance procedure. I will now go through providing feedback for the other 7 component skills of the guided-compliance procedure.

Presenting a One-Step Instruction

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "NATALIE (CONFEDERATE THERAPIST'S NAME), YOU DID A FANTASTIC JOB PRESENTING ONLY ONE-STEP INSTRUCTIONS." THERAPIST SMILES.]

Presenting Instruction Once

In the next clip the supervisor will provide feedback to the therapist about presenting the instruction more than once in the absence of an additional prompt. Note that the supervisor describes the therapist's incorrect performance, provides a rationale for behavior change, and then instructs the therapist on how to present the instruction once.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "THERE WERE TWO TRIALS THAT YOU PRESENTED THE INSTRUCTION AGAIN IN THE ABSENCE OF A MODEL PROMPT. IT'S IMPORTANT TO PRESENT THE INSTRUCTION ONLY ONE TIME BECAUSE WE WANT TO MAKE SURE THA AUBREY LEARNS TO FOLLOW THE INSTRUCTION THE FIRST TIME IT'S GIVEN. NEXT TIME, PRESENT THE INSTRUCTION ONCE, GIVE AUBREY 5 SECONDS TO COMPLY AND IF SHE DOESN'T COMPLY TO YOUR INSTRUCTION THEN YOU CAN REPEAT THE INSTRUCTION WHILE GIVING A MODEL OF THE CORRECT RESPONSE.]

Model Prompt

Watch the supervisor provide behavior-specific praise.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "YOU CONSISTENTLY PROVIDED A MODEL PROMPT WHEN AUBREY (CONFEDERATE CHILD'S NAME) DIDN'T COMPLY WITHIN FIVE SECONDS OF YOUR INSTRUCTION. THAT WAS REALLY GOOD!"]

Physical Prompt

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "THERE WAS ONE TRIAL WHERE YOU NEEDED TO PROVIDE PHYSICAL GUIDANCE AND DURING THAT TRIAL, YOU PROVIDED PHYSCIAL GUIDANCE A LITTLE TOO SOON AFTER THE MODEL PROMPT. OUR GOAL IS TO TEACH AUBREY TO RESPOND TO THE INITIAL INSTRUCTION OR MODEL PROMPT SO IT'S IMPORTANT TO GIVE HER A FULL FIVE SECONDS TO RESPOND AFTER THE MODEL PROMPT. NEXT TIME, WAIT A FULL 5 SECONSD AFTER PROVIDING THE MODEL PROMPT BEFORE PROVIDING PHYSICAL GUIDANCE.]

Keeps the Demand in Place

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "YOU DID AN AWESOME JOB KEEPING THE DEMAND IN PLACE UNTIL AUBREY COMPLIED. THERAPIST NODS AND SMILES.]

Praise Following Compliance

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "YOU ARE ALSO REALLY GOOD AT PROVIDING BEHAVIOR-SPECIFIC PRAISE IMMEDIATLEY AFTER AUBREY FOLLOWS YOUR INTIAL INSTRUCTION OR MODEL PROMPT."]

Withholds Praise for Physical Prompt

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "THERE WAS ONE TRIAL WHERE THE CHILD NEEDED TO PROVIDE PHYSICAL GUIDANCE AND ON THAT TRIAL FOLLOWING PHYSICAL GUIDANCEYOU PROVIDED PRAISE. YOU WANT TO MAKE IT MORE LIKELY THAT AUBREY WILL COMPLY FOLLOWING THE INITIAL INSTRUCTION OR FOLLOWING A MODEL PROMPT, AND LESS LIKELY THAT SHE WILL BE PHYSICALLY GUIDED, SO WE ONLY WANT TO PROVIDE PRAISE FOLLOWING THE BEHAVIORS WE WANT TO INCREASE, WHICH ARE COMPLYING TO THE INITIAL INSTRUCTION OR THE MODEL PROMPT. NEXT TIME FOLLOWING PHYSICAL GUIDANCE DON'T SAY ANYTHING AND JUST MOVE ON TO THE NEXT TASK."]

Withholds Praise for Problem Behavior

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "THERE WAS ONE TRIAL WHERE AUBREY (CONFEDERATE CHILD'S NAME) ENGAGED IN PROBLEM BEAHVIOR. YOU TOLD HER TO STAND UP, BUT WHILE SHE WAS STANDING UP SHE HIT YOU. FOLLOWING HER STANDING UP, YOU PROVIDED PRAISE. WE WANT TO MAKE IT LESS LIKELY THAT AUBREY (CONFEDERATE CHILD'S NAME) ENGAGES IN PROBLEM BEHAVIOR. EVEN THOUGH SHE WAS COMPLYING YOU SHOULD WITHHOLD PRAISE IF SHE ENGAGES IN PROBLEM BEHAVIOR. NEXT TIME, IF AUBREY ENGAGES IN PROBLEM BEHAVIOR YOU SHOULD NOT SAY ANYTHING AND JUST MOVE ON TO THE NEXT TASK." THERAPIST NODS, "OKAY."]

Step 6: Model the Correct Response

After reviewing the therapist's correct and incorrect performance for each component skill of the guided-compliance procedure, you should model how to correctly implement each skill that the therapist performed with less than 80% accuracy during the observation.

In the video you watched the therapist implemented 5 component skills with accuracy below 80%. In the next clip the supervisor will role play with the therapist and model each of these component skills.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "LET'S PRACTICE. I WILL BE THE THERAPIST AND YOU PRETEND TO BE THE CHILD. ON THIS TRIAL, WAIT TO FOLLOW MY INSTRUCTION UNTIL THE MODEL PROMPT."

SUPERVISOR TELLS THERAPIST TO STAND UP. THERAPIST WAITS TO STAND UP UNTIL SUPERVISOR MODELS THE CORRECT RESPONSE.

"SEE HOW I PRESENTED AN INSTRUCTION THAT WAS BRIEF AND NOT PHRASED IN THE FORM OF A QUESTION AND THAT I ONLY PRESENTED THE INSTRUCTION ONCE BEFORE THE MODEL PROMPT." THERAPIST NODS.

"THIS TIME, COMPLY WITH MY INITIAL INSTRUCTION, BUT ENAGE IN PROBLEM BEHAVIOR."

SUPERVISOR TELLS THERAPIST TO GIVE HER THE BLOCK. THERAPIST HITS SUPERVISOR AND THEN GIVES HER THE BLOCK. SUPERVISOR IGNORES FOR 3 SECONDS.

"THERE I DID NOT PROVIDE PRAISE EVEN THOUGH YOU COMPLIED, BECAUSE YOU WERE ENGAGING IN PROBLEM BEHAVIOR. LET'S TRY ANOTHER ONE: THIS TIME DON'T COMPLY WITH ANY OF MY INSTRUCTIONS."

SUPERVISOR TELLS THERAPIST TO PUT THE BLOCK IN THE BUCKET. THERAPIST SITS THERE AND DOES NOTHING. SUPERVISOR PROGRESSES THROUGH THE STEPS OF THE GUIDED COMPLIANCE PROCEDURE.

"IN THAT TRIAL, I GAVE YOU A FULL 5 SECONDS TO COMPLY TO MY INITIAL INSTRUCTION AND MY MODEL PROMPT, AND I DID NOT PROVIDE PRAISE BECAUSE YOU NEEDED TO BE PHYSICALLY GUIDED."]

Step 7: Provide an Opportunity for Practice

After you have modeled each component skills correctly give the therapist an opportunity to practice each skill they performed with less than 80% accuracy during the observation.

While you are practicing don't forget to provide behavior specific praise, so the therapist implements a component skill correctly and if the therapist implements one of the component skills incorrectly make sure that you are describing that incorrect performance, providing instruction on how to implement that skill correctly and continuing to practice that skill until the therapist is able to implement it correctly.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. "NOW IT'S YOUR TURN TO PRACTICE. I'LL BE THE CHILD AND YOU BE THE THERAPIST. PRESENTS SOME INSTRUCTIONS TO ME."

THERAPIST SAYS, "GIVE ME THE BLOCK." WAITS FIVE SECONDS. PROVIDES A CORRECT MODEL. WAITS FIVE SECONDS. SUPERVISOR GIVES HER THE BLOCK. THERAPIST PROVIDES PRAISE."

"NICE JOB PRESENTING A CLEAR INSTRUCTION AND PRESENTING IT ONLY ONCE ONLY ONCE! LET'S DO ANOTHER ONE."

THERAPIST SAYS, "JENNI (SUPERVISOR'S NAME), STAND-UP." SUPERVISOR STANDS UP, BUT THROWS SOMETHING. THERAPIST DOES NOT PROVIDE PRAISE.

"THAT WAS GOOD ON THAT TRIAL. EVEN THOUGH I COMPLIED I WAS STILL ENGAGING IN PROBLEM BEHAVIOR, SO YOU REMEMBERED NOT TO PROVIDE PRAISE. HOWEVER, WHEN YOU PRESENTED YOUR INSTRUCTION, YOU ADDED MY NAME IN. LET'S DO ANOTHER ONE."

THERAPIST SAYS, "STAND UP." SUPERVISOR DOES NOT STAND UP UNTIL SHE IS PHYSICALLY GUIDED. THERAPIST IMPLEMENTS ALL COMPONENTS CORRECTLY.

"THAT WAS AWESOME, YOU PROVIDED A CLEAR INSTRUCTION THAT DIDN'T HAVE ANY UNNECESSARY WORDS LIKE MY NAME AND YOU GABE ME A FULL FIVE SECONDS TO COMPLY WITH YOUR INITIAL INSTRUCTION AND YOUR MODEL PROMPT AND IT WAS REALLY GOOD THAT YOU REMEMBERED NOT TO PROVIDE PRAISE BECAUSE I NEEDED TO BE PHYSICALLY GUIDED."]

Step 8: Provide an Opportunity for Questions

Give the therapist an opportunity to ask questions and provide additional instructions or clarifications if needed.

[VIDEO CLIP OF THERAPIST AND SUPERVISOR SITTING ACROSS FROM EACHOTHER AT THE TABLE. SUPERVISOR ASKS, "DO YOU HAVE ANY QUESTIONS ABOUT ANYTHING WE WENT THROUGH TODAY OR IS THERE ANYTHING YOU WOULD LIKE TO PRACTICE AGAIN?" THERAPIST SAYS, "NO THAT ALL MADE SENSE."]

Appendix B

Experimenter Script for Tailored Training for Supervisor 4

*Note: The experimenter speaks words in italics. Text that is not italicized denotes instructions for the experimenter.

- *1.* At the start of the session, the supervisor should be seated at the table with the experimenter. Provide the introductory statement "*I am going to provide feedback on your implementation of the component skills of performance feedback.*"
- 2. Provide behavior-specific praise for each component skill that the supervisor implemented correctly during 80% or more of the opportunities during the post-training sessions.
 - a. "Overall, your skills with implementing the performance feedback procedure have really improved! You consistently implement a majority of the steps correctly when providing performance feedback."
 - b. "One skill you consistently do very well is collecting integrity data. During training, you have consistently collected integrity data with 80% accuracy or higher. Great job."
 - c. "You also do an excellent job providing behavior specific praise for component skills that a therapist performs correctly during 80% or more opportunities in a session."
 - d. "You are perfect at providing instructions for how to correctly implement component skills that the therapist performed with less than 80% accuracy during a session."
 - e. Demonstration-"When providing feedback, you also consistently model the correct implementation of a component skill that the therapist implemented with less than 80% accuracy during the session. That is a very important part of providing performance feedback. Nice job."
 - f. "Finally, you always make sure that the therapist has an opportunity to practice implementing the component skills that the therapist performed with less than 80% accuracy during the session. And when a therapist makes an error during the role play, you make sure to continue practicing until the therapist implements all component skills correctly. That is awesome."
- 3. Describe incorrect performance, provide a rationale for change, and provide instructions for each component skill that the supervisor implemented with less than 80% accuracy during the post-training sessions.
 - a. "One skill that you do not always implement consistently when providing performance feedback is describing incorrect performance for each component skill that the therapist performed with less than 80% accuracy during the session. You want to provide a specific description of what the therapist did incorrectly, so that it is clear to the therapist what the error was so that they can avoid making that same error in the future. Next time when you provide performance feedback. You want to describe the specific error that the therapist made during the session. For example, if the therapist frequently used the child's name in the instruction, when providing feedback you could say, 'there were three trials when I was observing that you used the child's name when presenting the instruction... '"

- b. Another skill that you do not always implement when providing performance feedback is providing a therapist with a rationale for changing ineffective performance for a component skill that the therapist implemented with less than 80% accuracy. It is important to provide a rationale for changing incorrect performance because it helps the therapist understand why it is important to implement a specific skill correctly. It also communicates to the therapist both the positive and potentially negative effects their behavior could have on the child's behavior. Next time you provide performance feedback, after describing what the therapist did that was incorrect, you should provide a rationale for why it is important for the therapist to change their incorrect performance. For example, when providing feedback after a therapist provided praise following physical guidance you could say, 'It is important to withhold praise if you had to physically guide the child to comply, because we want the child to comply with either the initial or the model prompt. We only want to provide reinforcement for the behaviors that we would like to continue, so it is important to withhold praise if you have to physically guide the behavior.'"
- c. The final component skill that you do not always implement when you are providing feedback is providing an opportunity for questions. Although, you sometimes ask the therapist if they want to practice more before you end your feedback session, you do not specifically ask the therapist if they have any questions about the feedback you provided. It is useful to set aside a specific time for the therapist to ask questions so you can make sure they have an opportunity to ask for more information if they did not fully understand the feedback you provided. Next time you provide feedback, make sure you ask the therapist if they have any questions before you end the session."
- 4. Demonstration: Model the correct implementation of each component skill that the supervisor implemented with less than 80% accuracy during the post-training sessions.
 - a. State, "Now let's practice, first I will be the supervisor and you can be the therapist. Then, you will get a chance to practice."
 - b. Hand the supervisor a mock integrity datasheet and review the general errors that the therapist made in the session (specific errors are printed on the bottom of the data sheet).
 - c. Now model providing feedback:
 - i. "I watched you implement the 3-step guided compliance procedure, and there were a number of things you did really well. You did an excellent job presenting a clear instruction to the child! Every trial, you presented the instruction only once before moving on to the model prompt, which is great! When you had to physically guide the child, you did it perfect every time, great work! It was wonderful how you kept the demand in place every trial. Lastly, you did great at providing behavior-specific praise on every trial that the child complied with the initial instruction or the model prompt!"
 - ii. "While I was observing there were a couple of skills that you did not always implement consistently. There were a two trials that you presented the instruction while the child was playing with a toy. It is important to make sure that you are facing the child and within his or her line of sight when providing an instruction. This ensures that the child is attending and will make it more likely that the child will comply with your instruction. Next time, make sure to

remove the toy the child is playing with and position yourself within the child's line of sight before presenting the instruction."

- 1. "In this example, I provided a specific description of the therapist's error, provided a rationale for why it is important to get the child's attention before presenting an instruction, and provided instructions on what to do next time to get the child's attention." "Now, I will provide feedback on the other component skills the therapist implemented incorrectly."
- iii. "You did not always provide a one-step instruction. On two trials you provided a two-step instruction. For example, on Trial 1 you told the child to stand up and go to the cubby. Being able to follow a twostep instruction is a more complicated skill and some children that we work with may not have that skill yet. So, it is important to provide one-step instruction to make it more likely that the child will be able to successfully follow our instruction. Next time, make sure to provide only a one-step instruction."
- iv. "There were a couple of trials where you waited too long after providing the instruction to model the correct response. You waited for about 10-s. It is important to model the correct response within 5s of providing the instruction. Our goal is to teach our clients to respond quickly following our initial instruction, so if they have not responded within 5s we want to move on to the next step of the prompting procedure. Next time make sure that after you provide an instruction you are only waiting for 5 seconds before providing a model prompt.
- v. "On two trials, the child did not comply with your instruction following the verbal or model prompt and you had to provide physical guidance. When you physically guided the child on these two trials, you provided praise afterwards. We want to teach our clients to respond following the verbal or model prompt, so it is important that we withhold praise following physical guidance. That way, we only provide praise for behaviors that we want to continue. Next time, if you have to physically guide the child to comply with the demand, do not provide praise. Instead, do not say anything and move on to the next demand."
- vi. "There was one trial where the child pinched you while complying with your demand, and you provided praise for the compliance. It is important that we withhold praise within 5 seconds of problem behavior, even if the child complies because we do not want to risk reinforcing the problem behavior and making it more likely to continue. Next time, if the child complies within 5 seconds of engaging in problem behavior, do not provide praise. Instead, just ignore the problem behavior and move on to the next demand."
 - 1. "Again, for all of the skills that the therapist implemented incorrectly, I described the specific error that the therapist made, provided a rationale for why it was important to change that error, and provided instructions for how to implement the skill correctly next time."
- vii. "After reviewing each skill that the therapist implemented incorrectly, you would practice with the therapist; however, as I stated earlier, you consistently do a great job modeling the correct implementation of the procedure and giving

the therapist an opportunity to practice, so I do not think we need to review those things now."

- viii. "So, pretend we just finished practicing. Do you have any questions about implementing the three step prompting procedure or about any of the feedback I gave you today?"
 - 1. "I am always going to end my feedback session by making sure to ask the therapist if he or she has any questions. That way I can make sure they have had an opportunity to ask me about any steps that may still be unclear or about any of my feedback that was not clear."
- 5. Opportunity for Practice: Provide an opportunity for the supervisor to practice the component skills that were implemented with less than 80% accuracy during the post-training sessions.
 - a. "Now it is your turn to practice."
 - b. Hand the supervisor a mock integrity datasheet and review the general errors that the therapist made in the session (specific errors are printed on the bottom of the data sheet).
 - c. "Pretend that I am the therapist and provide me feedback. Given that you have consistently done well with practicing, you can skip over the steps where you model the correct implementation of the procedure and where you ask me to practice."
 - d. Provide behavior-specific praise for the feedback-component skills implemented correctly and provide a description, rationale for change, and instructions for each skill implemented incorrectly. Continue to practice until the therapist implements all component skills correctly.
- 6. Opportunity for Questions: Once the supervisor finishes practicing, ask her, "*Do you have any questions about any of the feedback I gave you today or about any of the steps for implementing the performance feedback procedure?*" Answer any questions the supervisor has and then end the tailored training session.
- 7. Conduct a simulated guided-compliance feedback session within 10 min of completing the tailored training session.

Appendix C

Feedback Transcripts for Supervisor 2 During a Randomly Selected Baseline and Post-Training Session and During Follow-Up Probe with Actual Therapist

Supervisor 2 Baseline Session

Context-This session occurred during baseline. Immediately after the supervisor collected treatment integrity data on the simulated therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give me feedback on my implementation of the procedure"

[All actions] Supervisor 2	Confederate Therapist
Confederate therapist and supervisor are seated at the table acro	_
So overall, I thought you did a really good job. One of the things that I noticed, be sure that your client is always attending when you give a demand. So, you want to make sure that they're looking at you, you're looking at them, and you're in their line of sight [Supervisor models making eye contact with therapist] because if you're not in their line of sight, then they're going to be less likely to comply to you.	
	[Therapist nods.]
Also, you want to make sure that you present a clear instruction. So, you don't want to include the clients name or you don't want to include it as a question, you just want to give a straight-forward demand. I thought that you were really good at giving a one-step instruction, so that was something that I saw that you were really strong at, which was perfect. I was very happy about that.	
	[Therapist nods.]
Make sure that you present your instruction once. So, you're going to give an instruction, then you're going to count in your head to 5 s, and then you're going to give the model prompt. So, you don't want to give two instructions before the model prompt. During the model prompt, you want to make sure that you once again count 5 s from your original demand until you give the model prompt because we want to give our client a chance to respond. Let's see what else. [Supervisor looks at clipboard.] Everything else, to me, looked really well. I think that you are doing really well at implementing the procedure, and there was one other thing I had. Withhold your praise, once the client has problem behavior. So, I noticed that the client was biting themselves in the first trial and	

you still provided praise, so we want to make sure that we're not reinforcing that. Do you have any questions?	
	So, you mentioned the clear instruction, what does an unclear instruction look like?
So an unclear instruction would be "Can you sit in the chair?" or anything that would include it as a question or anything like if you said "Mike, sit in your chair" we just want to say "Sit in your chair" Does that make sense?	
	[Therapist nods.]
I think that that was everything. That was all I have for you.	

Supervisor 2 Post-Training Session

Context-Immediately after the supervisor collected treatment integrity data on the simulated therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give me feedback on my implementation of the procedure"

Supervisor 2	Confederate Therapist
Confederate therapist and supervisor are seated at the table across from one another.	
So I scored your treatment integrity. One thing I noticed was the attending piece. You have to always make sure that your client's attending to your instructions.	
	[Therapist nods.]
So make sure they are looking at you or at least looking in your direction, [looks down at clipboard] because if they are doing something else they are going to be less likely to be listening to you [looks at clipboard] and follow your demand. I noticed that you presented clear instruction on 100% of the trials.	
	[Therapist smiles and nods once.]
So, that was really good. That was really awesome. The next thing is to make sure you are presenting a one-step instruction. Instead of saying throw the ball then touch the ball, throw the ball to me or	

something like that or stand up and then walk to the table, make	
sure that are just saying one instruction at a time.	
sure mai are fust saying one instruction at a time.	
	Okay.
Because that is going to increase compliance and maybe if we say	Ondy.
a bunch of things the client could be less likely to comply. For the	
model prompt, make sure that you are always giving the model	
prompt 5 s after the initial instruction if they haven't complied with	
your initial instruction. So, we want to give them a chance to	
comply for 5 s and then if they still haven't, provide the model	
prompt. Also, make sure that you are keeping your current demand	
in place. So, make sure that you are getting compliance for your	
first demand before presenting another demand. You are also doing a really good job at providing a physical prompt when needed, so	
good job on that. So, with keeping the demand in place make sure	
that you are keeping your demand in place so that we can increase	
compliance and to show the client that they need to comply with	
their first demand because if we keep giving them demands and	
don't make them comply then they will be less likely to comply in	
the future.	
	[Therapist nods.] Okay.
Also, make sure you are withholding praise for problem behavior.	
So, if your client engages in problem behavior make sure that you	
count to 5 s in your head to make sure that you are not providing	
any reinforcement for that.	
	Okay.
Also, I noticed you did a really good job at praise following	
compliance and withholding praise for the physical prompt. Any	
questions with any of that?	
	[Therapist smiles.] No,
	no questions.
Now, we can practice.	
p	
	[Therapist nods.] Okay.
So, I am going to practice first and then I'll have you practice.	
	[Therapist nods.]
	Alright.

So, I am going to do an example to make sure the client is attending. [Therapist makes eye contact with therapist] Stand up.	
	[Therapist stands up.]
Nice job standing up. So, typically when we work with our kids sometimes they could be looking at their hands or playing with toys so if you wanted me to provide [Supervisor rummages through clear tub of items] an example. [Supervisor pulls out small dinosaur figurine and places in front of therapist] So if you want to play with the toy and then I'll give an example. [Supervisor makes eye contact with therapist] Stand up.	
	[Therapist stands up.]
So, that way they know just because if they are like looking down and you are giving a demand they're probably not listening to you.	
<i>So do you want to try?</i> [Supervisor grabs the small dinosaur figurine]	[Therapist nods.] Okay.
	<i>My turn</i> . [takes small dinosaur figurine] <i>Hands quiet</i> .
[Supervisor places hands flat on the table.]	
	Good job having your hands quiet.
Good job! You made sure that I looked at you before you gave your demand. [Supervisor places small dinosaur figurine back in the clear tub] That was perfect. Now, present a one-step instruction. So, [Supervisor pulls block out of tub and places in front of therapist.] Touch block.	
	[Therapist touches block.]
Nice job touching the block. Now you want to try?	<i>Yeah sure</i> . [Therapist makes eye contact with supervisor.] <i>Pick up the</i> <i>block</i> .

	-
[Supervisor picks up the block.]	Good job picking up the block. Now hand it to me.
[Supervisor hands therapist the block.]	Great job handing the block to me.
Does that make sense?	Yeah that makes sense. [Therapist nods in agreement.]
Okay, so next we are going to practice the model prompt. So, don't comply with my demand when I first give it to you.	[Therapist nods.] Okay.
Touch block.	[Therapist does not respond.]
<i>Touch block like me</i> . [Supervisor models touching the block.]	[Therapist touches block.]
Nice job touching the block.	[Therapist makes eye contact with the supervisor.] <i>Touch</i> <i>block.</i> [Therapist makes an error by immediately delivering a model prompt.] <i>Touch block</i> <i>like me.</i>

[Supervisor touches the block.] So for that one you are wanting to make sure you are waiting the full 5 s. So count in your head: 1-mississippi, 2-mississippi, 3-mississippi, and so on until you get to	
5.	Okay.
So let's try one more time.	[Therapist makes eye contact with the supervisor.] <i>Touch block</i>
Touch block like me. [Supervisor models touching the block.]	
	[Therapist touches the block.] <i>Good job touching the block</i> .
[Supervisor nods.] That was perfect. So, now we are going to practice keeping the demand in place. So, I am going to show you how that looks. Stand up.	
	[Therapist does not respond.]
Stand up like me. [Supervisor models standing up.]	[Therapist stands up.]
Nice job standing up!	[Therapist returns to seated position.]
So, that one, we just want to make sure that we are getting compliance with our first demand. So, I didn't say stand up and then say go to the door or whatever. Just something else so that we get compliance with that first demand before we give a second	
demand. So you can practice that.	[Therapist makes eye contact with the supervisor.] <i>Pick up block</i> .

[Supervisor picks up block.]	Good job picking up the block.
Yeah, we can try one more where I am not going to pick up the block.	Okay, stack block.
[Supervisor does not respond.]	<i>Stack block like me</i> . [Therapist models stacking the blocks.]
[Supervisor stacks blocks.]	Good job stacking the block.
Yeah, that was perfect. Okay, so next one is withhold praise for problem behavior. So, I am going to give you a demand and engage in some sort of problem behavior. Hands quiet.	[Therapist bites self and then places hands flat on the table.]
So, I am not going to say anything because I don't want to give reinforcement for that.	Okay.
So, now it's your turn.	Stand up.
[Supervisor hits self in head and then stands up.] [Supervisor waits to see if therapist provides praise.] <i>Yeah, perfect.</i> <i>Do you have any questions?</i>	No, I don't.

Okay, that was all.	Perfect, thanks for
	<i>letting me know.</i>

Supervisor 2 Follow-Up Probe with Actual therapist

Context-Immediately after the supervisor collected treatment integrity data on an actual therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give feedback to the therapist on their implementation of the procedure"

Supervisor 2	Actual Therapist
Actual therapist and supervisor are seated at the table across from one another.	
So I'm going to provide feedback based on your implementation of three step prompting.	
	Okay.
And you are being videotaped but it's for the purposes of me.	
	That's fine, you're good.
This is to train me to give better feedback.	
	[Therapist nods]
Okay, so I just scored your video and one thing that I noticed, which I know can be hard, is to get the clients attending first. So, I know sometimes when you face the kids, they look away or whatever, so the easiest thing is to get up kind of like in their face to make sure that they're making eye contact [supervisor moves to gain eye contact with therapist] And so in [client initials] case, I know they're really short so maybe just like bend over to where she is, that way it increases the chances of compliance. And we're going to practice all of this after so I am just going to give you the overview, then I'll practice and model it for you, then you'll practice.	
	Okay.
Another thing was clear instruction, although you were giving one- step instructions. You were really good at giving one-step instructions but the clear instructions, just make sure to not like include her name or form it in the way of a question. That is	

another one that can get trially because typically when we tall	
another one that can get tricky because typically when we tell	
someone something, we're like "Hey blah blah blah," but just	
because some of our kids don't know their names yet.	
	Dialat
	Right.
So then adding that other verbal might confuse them. Then like I	
So, then adding that other verbal might confuse them. Then, like I said you were really good at presenting a one-step instruction so	
good job doing that! Another thing was to present the instruction	
once. So, you'll give the instruction and then if she doesn't comply	
within 5 s then you'll do the model. And then, like I said, we'll	
practice that too. That way, we're following through but without	
unnecessary demands in between. So, that's the next piece I am	
going to talk about is the model prompt. So, the instruction, and then if she doesn't comply then the model prompt, and then after	
that comes the physical prompt. All of those pieces are just making	
sure that we follow through and a lot of the time it's not even our	
kids being non-compliant, it's that they don't know what we mean.	
Kus being non-compliant, it's that they don't know what we mean.	
	Okay.
	Okay.
So, that way we're also using that for teaching, like to follow	
through. So, then next time that we say "Stack the blocks." Then	
she'll know what that means. You were also really good at keeping	
the demand in place, so good job for that. And another piece, which	
<i>I saw, that you did every time was praise following compliance but</i>	
next time be sure that it is behavior specific. So next time you say	
"Stand up" you'll say "Good job standing up."	
	[Therapist nods] Okay.
And I did hear you say "Nice job listening" so that's still behavior-	
specific that she listened, but next time just make it what your	
demand was. So, if you say "sit down" then say "nice job sitting	
down." Okay, so we're going to practice a few of those [grabs toys	
from bin] with some toys in here. I am going to practice first, and	
then I'll have you practice. [pushes items toward the therapist]	
	¥7 1
	Yeah.
Do you have any questions or anything?	
Do you have any questions of anything:	
	[Therapist shakes head]
	rL-se summer menal
Okay, so the first is attending. So I'll show you and then you can.	
[Supervisor makes eye contact with therapist.] <i>Stack the blocks</i> .	

So notice how I made eye contact with you and made sure you were	
attending. Your turn.	
	[Therapist makes eye contact with supervisor.] <i>Stack the blocks</i> .
So, that was perfect. Now, present a clear instruction so that could still be the same, but we'll do something else. Hand me the tangle.	
	[Therapist hands supervisor the tangle]
Nice job handing me the tangle. So instead of saying "[therapist's name] hand me the tangle," you can do that.	
	Hand me the tangle.
[Supervisor hands therapist the tangle]	
	Good job handing me the tangle.
Okay, so now we'll do the model prompt and then after that we'll add the physical prompt. So, the first time I give you the instruction, don't do it. Stack blocks.	
	[Therapist does not respond]
Stack blocks like me. [Supervisor models stacking the blocks.]	
	[Therapist stacks blocks.]
Nice job stacking the blocks. So, I'll let you practice that one.	
	Stack blocks.
[Supervisor does not respond.]	

	Stack blocks like me.
	[Therapist models stacking the blocks.]
[Supervisor stacks the blocks.]	
	Good job stacking the blocks!
That was perfect, and so the only different part for the physical prompt would be if I still didn't do it you'd follow through. So, we'll go ahead and practice that one too. Stack blocks.	
	[Therapist does not respond.]
Stack blocks like me. [Supervisor models stacking the blocks.]	
	[Therapist does not respond.] <i>This is the awkward part.</i>
Stack blocks like me. [Supervisor physically guides the therapist to stack blocks.] And then I wouldn't give praise because it was physically prompted.	
	Stack blocks.
[Supervisor does not respond.]	
	<i>Stack blocks like me.</i> [Therapist models stacking the blocks.]
[Supervisor does not respond.]	
	<i>Stack blocks like this.</i> [Therapist physically guides the supervisor to stack blocks].

Perfect, and then the last one is praise following compliance. And like I said you always gave praise, we just want to be sure that it is behavior specific. Stack blocks.	[Therapist stacks blocks.]
Nice job, I love how you stacked those blocks!	Hand me the tangle.
[Supervisor hands therapist the tangle.]	Great job handing me the tangle.
Yupp, that was perfect, do you have any questions?	[Therapist shakes head.] <i>Nope</i> .
Okay, well thank you for helping me.	

Appendix E

Feedback Transcripts for Supervisor 4 During a Randomly Selected Baseline and Post-Training Session before and after Tailored Training, and During Follow-Up Probe with Actual Therapist

Supervisor 4 Baseline Session

Context-This session occurred during baseline. Immediately after the supervisor collected treatment integrity data on the simulated therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give me feedback on my implementation of the procedure"

All spoken language

Supervisor 4	Confederate Therapist
Confederate therapist and supervisor are seated at the table across from one another.	
On this one, you scored a 74%. You did a great job making sure that you had the client's attention before presenting your demand.	
	[Therapist nods.]
You did a great job presenting a clear instruction that didn't include a question or the child's name. A few things to remember is to only repeat your SD once before moving to the model.	
	[Therapist nods.]
Also, to make sure that you're only using one step demand each time and that you keep your demand in place before switching to another demand. That's about it.	
	Okay. [Therapist nods.]
The more simpler it is the better. You did perfect on presenting instructions once and all your model promptings that was really good.	
	Okay.

Supervisor 4 Post-Training Session Before Tailored Training

Context-This session occurred during post-training sessions. The experimenter had not yet delivered tailored training. Immediately after the supervisor collected treatment integrity data on the simulated therapist's implementation of the guided-compliance procedure, the

experimenter instructed the therapist to "Try their best to give me feedback on my implementation of the procedure"

[All actions]		
Supervisor 4	Confederate Therapist	
Confederate therapist and supervisor are seated at the table acro	oss from one another.	
On this one, you scored a 71%. Some areas that you scored really well on were making sure the client was attending to your demand, being in the line of sight, making sure that your instructions were clear, they actually were demands not questions, you told the client what they needed to do. They also were one step, so they didn't include more than one thing that they needed to follow. You also did a good job providing behavior specific praise when the client followed the instruction on the first instruction or the model. And also on one trial there was problem behavior you withheld your praise for problem behavior so that was really good. Some things to work on are making sure that you only present your SD one time so not repeating it in between each initial instruction and the model and the physical. And also making sure that you allow the right amount of time in between the model and the physical guide, so once you give your initial instruction you'll allow anywhere from 3 to 5 seconds before you give a model and then another 3 to 5 seconds, sorry, 3 to 7 seconds before you do your physical guide another thing was if the client did not follow your initial instruction, there were several instances where you changed the demand		
	[Therapist nods.]	
instead of moving to model and keeping that demand in place. also we want to withhold praise if we have to physically guide the client. So if you do have to physically guide you'll want to just move on to the next trial. So we can try some of those so you can see some examples. [Supervisor rummages through the bin and pulls out a block and a small dinosaur figurine.] So, you can follow this one on my physical guide. Hand me dino.		
	[Therapist does not respond.]	
Hand me dino like this. [Supervisor models handing her the dinosaur.]		

	[Therapist does not respond.]
<i>Hand me dino</i> . [Supervisor physically guides the therapist to hand her the dinosaur.] <i>And then we would just move on</i> .	
	[Therapist nods.]
On that one, I made sure to only tell you one time before I presented the model so only once "hand me dino" and then I allowed you time to respond to the independent, or to respond independently and then provided the model and then the physical guide. Allowing time between those it gives the client a chance to respond or even like understand what you are saying and then respond [Supervisor laughs.]	
	[Therapist nods and laughs.]
Also, I kept the demand in place so when I said "hand me dino" and you didn't hand it to me I didn't switch to "give me dino" or "hand me the block" or something else to get you to comply. I, also, didn't give you praise since I had to physically guide that. We would rather the client respond independently or with a model. So providing reinforcement there makes it likely to respond to that physical guide. [Supervisor nods.] So we can try a couple more. You can respond on my model for this one. Stack blocks.	
	[Therapist does not respond.]
Stack blocks like this [Supervisor models stacking the blocks.]	
	[Therapist stacks the blocks.]
Awesome job stacking the blocks. So, that time you did get praise, you followed on the model and I also allowed time to respond in between my first instruction and the model.	[Therapist nods.]

So I'll let you practice some of these with me [Supervisor places the	
bin in front of the therapist.]	Hand me the dino.
[Supervisor does not respond.]	Hand me the dino like this. [Therapist models handing the dinosaur to herself.]
[Supervisor hands the therapist the dinosaur.]	Great job handing me the dino.
That was good. You only presented the instruction one time and you made sure to give me time to respond in between your initial instruction and the model.	[Therapist nods.] Stack blocks [Therapist does not allow 5 s for supervisor to respond.] Stack block like this
[Supervisor does not respond.]	[Therapist physically guides the supervisor to stack the blocks.]
That was good. You did not provide praise for the physical guide. Try to give a little more time before you provide the model after the initial instruction. I wasn't exactly timing, probably a little less than 3 s, but make sure you allow that time. So, we can do another	
one.	<i>Okay</i> . [Therapist nods.] <i>Stack blocks</i> .
[Supervisor does not respond.]	<i>Stack blocks like me.</i> [Therapist models stacking the blocks.]

[Supervisor stacks the blocks.]	Great job stacking the blocks.
That looked perfect.	[Therapist nods and smiles] <i>Okay</i> .
So, if you would like to try some more we can continue to practice.	[Therapist shakes head 'no.']
Or that would be all I have for you.	
	Okay.

Supervisor 4 Post-Training After Tailored-Training Session

Context-This session occurred during post-training sessions after Supervisor 4 had received tailored training. The session occurred immediately after the supervisor collected treatment integrity data on the simulated therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give me feedback on my implementation of the procedure"

All spoken language

[All actions]

Supervisor 4	Confederate Therapist
Confederate therapist and supervisor are seated at the table across from one another.	
So, areas that you did really well on this guided-compliance procedure is attending. On all of the trials, you made sure that you were in the child's line of sight, and that they were paying attention to you. Some other ones were that you presented a one-step instruction, so you made sure that you gave them only one thing to do at a time. Also, you presented each instruction only once before moving through the steps of it. We want to make sure that we do that so that we are giving them more opportunities to respond. For the full physical one, you had to physically guide on two trials and both of those were great. You gave enough time for them to follow your model and they were. You also made sure to repeat the instruction while you physically guided. You kept the demand in	
place for all of the trial to make sure that the child had to follow through with your demand and for the one trial that the child	

engaged in problem behavior you withheld praise so that was really good. We want to make sure that we are not reinforcing that problem behavior.	
	[Therapist nods.]
Some areas to work on is giving a clear instruction. So, for two of the trials you asked it as a question. So, should we or will you stand up and two of them you also added the child's name. You said Jenny stand up or something to that nature. Sometimes adding in those words can be confusing or adding something like if the child will sometimes make eye contact when the name. Those extra words just add in on top of your demand. So make sure to just give your instruction; just that one-step instruction, clear with no names or questions, and that way they know exactly what they are supposed to do.	
	[Therapist nods.] Okay.
Also, the model prompt on that one. One of your trials, you were too quick to give a model. So you told them to, I forget which one that one was. That one was the first trial, so you told them to do something and then immediately modeled that instead of giving them around 5 s to respond after your initial instruction.	
	[Therapist nods.] Okay.
So, we want to be sure that we allow them that opportunity in that 5 s before we physically, sorry, before we model the response. Another one is providing reinforcement with compliance. On one of them, you did not give praise and another one was not behavior- specific praise. So, we want to make sure that we restate what we have told the child to do, so that way we can kind of link that back together the demand and your praise. So, just make sure that you add in your demand. For example, "Nice job standing up," that way they can hear that again.	
	Okay.
Another one is, on the two trials that you did physically guide, you also provided praise following that. We want to make sure that we are withholding praise so that were not reinforcing and making it more likely that they follow our physical guide. So, if you do have to physically guide in the future you can just make sure that you just move on to your next task.	

	Okay.
So, we can practice some of these. [Supervisor grabs bin of materials.]	
	Okay.
You can follow this on my model. [Supervisor places block in front of therapist.] Stack blocks.	
	[Therapist does not respond.]
Stack blocks like me. [Supervisor models stacking blocks.]	
	[Therapist stacks blocks.]
Nice job stacking blocks. So I gave a clear instruction, and I didn't say your name or ask you "Did you want to stack blocks?" I made sure that you were told to stack blocks. I also gave you enough time to follow my model but not too long. You did follow it, so I didn't have to move to a physical guide but I wanted to make sure that after I told you to stack blocks I didn't immediately give you that model because you could have independently responded. And then, I also gave behavior-specific praise, "Nice job stacking the blocks," that way you heard that demand again.	
	Okay.
So, we will do one where you follow my physical guide. [Supervisor places car in front of confederate.] Drive car.	
	[Therapist does not respond.]
Drive car like me. [Supervisor models driving the car.]	
	[Therapist does not respond.]
Drive car like this. [Supervisor physically guides the therapist to drive the car.] And then I would just move on. So, again the clear instruction of just driving the car. And that was a good example of how long to do in between your model and physical and also in	

between your independent and model, so that way it is about 5 s between each before you move through each step. I also withheld	
praise for that because I don't want to reinforce you following that	
physical guide.	
	Alright.
So, I'll let you practice some.	
so, i u lei you practice some.	
	[Supervisor's name], Stack blocks.
[Supervisor does not respond.]	
	<i>Stack blocks like me.</i> [Therapist models stacking the blocks.]
[Supervisor stacks blocks.]	
	Good job stacking the blocks!
So, your behavior-specific praise was really good there. You said, "Nice job stacking the blocks." You also gave enough time before your model so that way I could have independently responded but you did add my name into the instruction, making it a little unclear and I could have gotten distracted in there. So, try one with a clear instruction, just "Stack blocks."	
	Stack blocks.
[Supervisor does not respond.]	
	<i>Stack blocks like me.</i> [Therapist models stacking blocks.]
[Supervisor stacks blocks.]	
	Good job stacking the blocks.
That was perfect! So, we'll do another one with some physical prompting.	

	Hand me the dino.
[Supervisor does not respond.]	
	Hand me the dino, like this. [Therapist models handing the dinosaur.]
[Supervisor does not respond.]	
	Hand me the dino like that. [Therapist physically guides supervisor to hand the dinosaur.]
That was perfect! That was a clear instruction, you had enough time before you modeled, you also withheld praise for that physical guidance so that looked great. Would you like to practice some more?	
	I'm fine.
Okay, do you have any questions for me about any of this?	
	Yeah, so with the model, how long is too long?
Too long is any more than 7 s so we go by 5 s plus or minus two so that we have a little room. So, anywhere from three to seven s between moving through those steps. It also goes for the physical.	
	And then for the physical, I withhold praise entirely? So I don't say, like what?
You don't say anything at all. So, if you have to physically guide, you would not provide any words or anything without acknowledging pretty much anything. So, no words no physical attention.	
	Okay!
So, that's all I have for you.	

Okay, thanks.

Supervisor 4 Follow-Up Probe with Actual Therapist

Context-This session occurred one month after Supervisor 4 received tailored training. Immediately after the supervisor collected treatment integrity data on the actual therapist's implementation of the guided-compliance procedure, the experimenter instructed the therapist to "Try their best to give the therapist feedback on their implementation of the procedure"

All spoken language

[All actional

Supervisor 4	Actual Therapist
Confederate therapist and supervisor are seated at the table acro	oss from one another.
Okay, so after watching you implement the guided compliance procedure you did a great job. You did a perfect job making sure that he was attending before you gave all of his demands. You also made sure to give a clear instruction, so your instruction was the demand, it didn't have any questions, you told him exactly what he needed to do. All of your demands were also one step, so they were one thing that he needed to do. You also kept your demand in place on every trial, making sure not to switch it up and allowing him to escape that. And then, you also presented your demand once, so you made sure that before you presented again you either moved to the model. But, you also didn't need to use a model or a physical prompt at all during this so that was really cool. The only thing that I noticed is that based on this procedure, requires behavior- specific praise on all of them. You did provide praise on all of the ones that you should have, but in the future maybe try to use behavior-specific praise.	
	Yeah.
So, if he stands up, "Nice job standing up" that type of thing. Normally, we would practice these types of things so I'll just let you, or I'll give a demand or something. Then, since that's the only thing we have to practice, we'll just go through one or two of them. [Supervisor grabs tangle from bin.]	
	Okay!
So, if I were to say "Hand me tangle."	
	[Therapist hands her th tangle.]

Nice job handing me the tangle. So, providing that extra-specific	
praise kind of relates that demand back for them so we'll let you do	
one.	
	So, just what you did?
[Supervisor nods.]	
	Hand me tangle.
[Supervisor hands therapist the tangle.]	
	Awesome job handing me the tangle!
Yeah, perfect. So, just adding that extra little bit of repeating the SD can just kind of link that yeah you did this with that reinforcement can just kind of link that. But, other than that, you scored an 86 and that was the only category that even had anything below. Actually, there was one instruction. Normally, you would say his name to get him to attend and then there would be kind of a delay. So, there was one where you said "[Client's name] stand up." So, actually, I kind of counted that as being in the demand and a little less clear but otherwise it is 80% on this.	
	Okay, great.
So, for one trial of that, that was great.	
	Awesome!
Do you have any questions for me about this or what we went over or would you like to practice more?	
	No, I think I am good. Thank you!
Okay, then, that's all thanks!	
	1