

EVALUATING THE EFFECTIVENESS OF A COMPETENCY-BASED TRAINING  
PACKAGE TO TEACH BEHAVIOR MANAGEMENT  
SKILLS TO DIRECT SUPPORT STAFF

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Cooper, Heron and Heward define maintenance as the extent to which a learner continues to perform a target behavior after the intervention has been terminated. Testing for maintenance allows the trainer to see if gains were sustained following the termination of a treatment program. In addition, once it is shown that a learner's skills have remained in the repertoire, assessment of generalization is possible. Previous literature in behavior skills training have assessed maintenance in a variety of settings for a variety of skills. Following maintenance assessments, booster sessions are commonly used to re-train skills that did not maintain at criterion levels. The current project assessed the maintenance of caregivers' skills following a training package used to teach three behavior management techniques (use reinforcement, pivot, protect-redirect) at a large, residential care facility. Procedures were developed to assess caregivers' maintenance of the three behavior management techniques using a pre-test- post-test design. If needed, skills were re-established using 5-20 minute booster sessions. The results showed that time between post-test and maintenance did not seem to have a strong effect on maintenance scores. In general, post-test scores were somewhat indicative of maintenance scores, and patterns were most apparent across tools.

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## CHAPTER 1

### INTRODUCTION

Training caregivers for individuals with disabilities to implement positive behavior management procedures is an important area for behavior analytic research, technology development, and application (Shivers, 2014). Behavior-analytic research on behavioral skills training (BST) emphasizes training and assessment of competency in the performance of targeted skills rather than verbal performances (e.g., answering questions on a quiz or test) as best practice for training caregivers (Parsons, Rollyson, & Reid, 2012). BST describes a four-component staff training approach, incorporating instructions, modeling, rehearsal, and feedback (Homlitas, Rosales, & Candel, 2014; Miles & Wilder, 2009; Parsons et al., 2012; Rosales, Stone, & Rehfeldt, 2009; Sarokoff & Sturmey, 2008).

Instructions are incorporated into BST to provide the trainee with detailed information about the target skill(s). Information may include a rationale for the targeted skills (Parsons et al., 2012), operational definitions so that the trainee is aware of the specific behaviors targeted for change, and task analyses detailing how to perform the skills. Instructions may be written or verbal in form.

Modeling involves demonstrating how to perform the target skill(s). There are various ways to model the skill to the trainees. In-vivo role-play demonstrations (Gardner, 1972) and video models are the most common forms of modeling in the literature (Catania et al., 2009; Neef et al., 1991; Nielsen, Sigurdsson, & Austin, 2009). Parsons et al. (2012) emphasize the importance of “well-scripted and rehearsed” role plays (p.3) to present clear examples of all components of the targeted skill(s). The authors also suggest pausing the demonstration at different times to highlight key components that the trainees will later be required to

demonstrate.

During rehearsal and feedback learners actively engage in the target skill(s), typically in a role-play scenario, and both corrective feedback and behavior-specific praise are provided following rehearsal. Parsons et al. (2012) state that best practice is to repeat these final components until mastery is reached, and that “this final step represents the essence of the competency part of BST” (p.4).

Shivers (2014) developed a competency-based training curriculum to teach basic behavior management techniques to employees at a large, residential care facility. Upon being hired at the facility, new employees (approximately 30-100 each month) are required to attend an orientation training to teach foundational behavior management techniques. The curriculum was created based on techniques described by Latham (Latham, 1994), and versions of the curriculum have been used to train foster-care providers (VanCamp, et al., 2008), parents identified as at-risk for child neglect or maltreatment (Berard and Smith, 2008), teachers (Haines, 2005), and caregivers in community settings (Van Camp et al., 2008). The behavior management techniques taught during this training included Use Reinforcement, Pivot away from mild challenging behavior to more appropriate behavior (differential reinforcement) and Protect-Redirect (differential reinforcement with blocking for more severe behavior).

The classroom component of the curriculum was delivered over two 8-hour sessions. The first session was attended by all new employees hired to work at the facility, the second session was only attended by employees who worked directly with clients as a part of their regular job duties. The content of this instruction included basic behavior principles, imitation, shaping, chaining, the negative side-effects of coercive styles of behavior management, and some facility procedures and policies (e.g., standard data collection procedures). This component of the course

was taught using didactic instruction, video and live role-play examples, and role-play practice.

Following the new employee training, caregivers who worked directly with residents attended an on-the-job training (OJT) session. This training was a component of a comprehensive OJT process in which training was delivered to smaller groups assigned to a common unit at the facility. The OJT process occurred over approximately two weeks and included training on specific tasks such as meal preparation, lifting, and behavior management, among others. Most of the content in the behavior management component of OJT was a review of content taught during the second session of the foundational behavior management training (Use Reinforcement, Pivot, Protect-Redirect). The training was conducted across three two-hour sessions and incorporated group discussion, video-modeling, and role-playing with feedback to teach three behavior management skills in a group setting. Skills were tested using pre- and post-test role-plays.

During the first OJT session, a pre-test role play was administered, in which caregivers were asked to demonstrate each of the three tools in role play scenarios. The trainer followed a script and the trainee's behavior was recorded using a checklist including each component of each tool. The trainer assumed the role of the client and the trainee assumed the role of the caregiver. No feedback was provided during the pre-test. The purpose of the pre-test was to assess the caregiver's skills prior to OJT. Following the pre-test, the participants were shown video models of scenarios in which the tools were used and discussed these as a group. Three video examples were shown for each tool (9 total vignettes). The trainer narrated each example, pausing to highlight key components and prompting responses from the trainees. Each video was approximately 1-2 minutes in length. Data collection procedures were also discussed and practiced as a group during this session.



During the second session the caregivers were again asked to demonstrate the tools in role-play scenarios. The post-test was conducted in the same manner as the pre-test, with the addition of feedback following the role play. Following the post-test, the caregivers were provided behavior support plans for the clients on their assigned caseload. A corresponding fill-in-the-blank, open book quiz was attached to each client's support plan. The third day of training consisted of reviewing the quizzes, answering specific questions about the clients (e.g., how to use the tools to manage behavior with a specific client). Instruction and training for client-specific procedures (e.g., the use of blocking pads for client protection, crisis intervention plans for high risk clients) was also conducted during this session.

Although Shivers (2014) demonstrated that BST was effective to train caregivers to conduct positive behavior management procedures in a large-scale context, no data were presented to indicate if caregivers could continue to demonstrate the targeted skills over time (maintenance) or if the skills would be demonstrated with clients of the facility in real-life contexts (generalization). Previous studies in the BST literature have assessed maintenance in a variety of settings such as: in home settings (Caravello, 2011; Mueller et al., 2003), in clinic settings (Caravello, 2011; Mueller et al., 2003; Rosales, Stone & Rehfeldt, 2009), in schools (Miller et al., 2009) and in the community (Van Camp et al., 2008). Follow-up training has been conducted for the assessment of maintenance for a variety of skills such as: Stay Close, Reinforcement, Pivot, Redirect, Setting Expectations (Caravello, 2011; Murrell, 2009; Van Camp et al., 2008); Time-out and ABC's of behavior (Van Camp et al., 2008), PECS (Rosales, Stone & Rehfeldt, 2009), differential reinforcement of alternative behavior (Mueller et al., 2003), and noncontingent reinforcement (Mueller et al., 2003), among others. The assessment of maintenance is of value because it ensures that gains have been sustained following the

termination of a treatment program and, if gains are not maintained, efforts can be made to provide remedial training. BST researchers typically have used “booster sessions” to re-establish skills that did not maintain at criterion levels. Booster sessions are typically conducted between 4 months and 1 year following initial training and can be 2-6 hours in length (Caravello, 2011; Miller et al., 2009; VanCamp et al., 2008).

The current project aimed to extend the outcomes of Shivers’ (2014) study to evaluate the maintenance of caregivers’ use of the three behavior management tools following on-the-job training. The project assessed maintenance with participants over varying lags of time to assess if time affects maintenance of skills. In addition, the study aimed to identify patterns of errors indicating specific skill areas that may be more or less likely to show maintenance. Finally, caregivers who did not display maintenance of previously taught skills received booster training to re-establish accurate performance of the three behavior management skills.

## CHAPTER 2

### METHOD

#### Participants and Setting

Prior to the current study, caregiver training was conducted with 68 participants working at a large, state residential care facility for adults with intellectual and developmental disabilities (Shivers, 2014). The current project evaluated maintenance of skills for 23 participants. Data collection for the original study concluded in November 2013. The participants in this study were derived both from the pool of 68 participants in the original study as well a pool of caregivers who were provided the training after November 2013. As with the original study, some of the participants (4 out of 23) were non-native English speakers. All caregiver training was conducted by trained graduate students or professional staff employed by the Behavior Analysis Resource Center or under the supervision of the Behavior Analysis Resource Center. The participants worked at different units across the facility and procedures were conducted at various locations at the facility. Caregivers were relieved from their regular job duties and all project procedures were conducted in areas where no clients were present. All rooms contained a computer where training videos (role-plays) could be watched.

#### Caregiver Training

The caregiver's attended a two-day fundamental behavior management training upon being hired at the facility. Prior to maintenance probes all participants participated in an on-the-job caregiver training. The on-the-job training was presented across three 2-hour sessions. The training consisted of pre- and post-test role-plays during which opportunities to implement several behavior management procedures (Reinforcement, Pivot and Protect-Redirect) were presented. During role-plays, the trainer assumed the role of the client and the participant assumed the role of the caregiver. The pre-test role-play occurred on the first

day of training and no feedback was given. Following the pre-test, the caregivers were shown video models demonstrating how to use the tools in the form of 9 vignettes (3 video examples for each tool). In addition, caregivers were taught data collection procedures and given written individual behavior plans for the clients they would be working with as well as corresponding fill-in-the-blank quizzes. The post-test was given on the second day of training and feedback and re-training were provided as necessary.

### Trainer Training

Graduate students (trainers) participated in the caregiver training and were subsequently trained to independently collect data and conduct role-plays. All trainers were required to obtain a mean overall IOA of at least 80% for three consecutive role-play sets for each tool. Trainers were also required to demonstrate 100% procedural integrity on three role-plays for each tool.

*Data Collection.* Paper data collection checklists used during initial training procedures were also used for the current project (see Appendix A for checklists). The checklists described specific steps for each behavior management tool. Data collectors scored “yes” or “no” to indicate if the caregiver accurately conducted each step and “n/a” if there was no opportunity to demonstrate the step.

### Inter-observer Agreement

Each role-play for a specific tool was counted as one probe. A total of 126 probes were conducted, and inter-observer agreement coefficients (IOA) were calculated for 65 (51%) maintenance probes. Step-by-step IOA was calculated by dividing the number of steps scored identically by both observers by the number of steps with agreement plus the number of steps with disagreement and multiplying the result by 100. IOA for the Reinforcement tool ranged from 83% to 100%, with a mean IOA of 99%. IOA for the Pivot tool

ranged from 75% to 100%, with a mean IOA of 94%. IOA for the Protect-Redirect tool ranged from 67% to 100%, with a mean IOA of 98%. Overall IOA across tools was 97%.

### Maintenance Probes

Maintenance was assessed in role-play contexts, identical to the role-plays presented during initial training, for each of the three tools. The trainer arranged for the caregiver to be relieved from regular duties and escorted the caregiver to a private, quiet area. The caregiver was told, “We are going to do role-plays using the three tools you learned in on-the-job-training (OJT). I will be the client and you will be the caregiver and you will decide which tool to use (Reinforcement, Pivot or Protect-Redirect).” The trainer then presented one role-play corresponding to each of the three tools, using vignettes and scripts that were identical to those presented during initial training (e.g., role plays were identical to those used during initial training). The mastery criterion was 100% correct on all steps for each role-play. If the criterion was met, the trainer provided verbal praise to the caregiver and the caregiver was released back to regular job duties. For tools that were not performed at 100% accuracy, booster sessions were conducted.

Booster sessions lasted between 5 minutes and 20 minutes in length. Booster sessions involved providing specific performance feedback and presenting one video model for each tool that was not performed at criterion levels. Immediately following booster sessions, role-plays for the tool(s) not at criterion were re-presented. Booster sessions were repeated as necessary until the caregiver reached the exit criterion.

Follow-up probes were conducted approximately one week following booster sessions for the caregivers who did not originally show maintenance (e.g., who did not meet criterion during the first maintenance probe) to assess if the booster sessions improved long-term maintenance of caregiver performance. During follow-up, caregivers were asked to re-demonstrate the role-play

for the tool(s) that were not at criterion during the first maintenance probes. Maintenance and 1-week follow-up probes lasted between 10 minutes and 30 minutes.

### Social Validity

A social validity questionnaire was administered to participants following their final maintenance probe (See Appendix E for questionnaire). The questionnaire consisted of 9 statements for which caregivers provided responses of “agree,” “strongly agree,” “disagree, strongly disagree,” or “don’t know.” The statements were related to the quality of initial and follow-up training, and the skills taught during training. The questionnaire contained a section on the bottom where the caregiver was able to leave additional comments. All questionnaires were completed anonymously.

## CHAPTER 3

### RESULTS

Maintenance scores were compared to post-test scores from the original training. Role-plays conducted during booster sessions and during follow-up probes were compared as well. The data in figure 1 shows individual data for each participant. It is important to note that post-test scores were derived from the first probe session following initial training and, therefore, does not account for improvements following feedback or retraining. Although results of training and interventions subsequent to the initial probe are not available for analysis, scores on initial probes reflect the extent to which initial training efforts were successful; thus, these scores can permit an analysis of the extent to which responsiveness to initial training predicted the results of maintenance probes.

Figure 1 displays the scores during maintenance probes for all participants across each tool according to the amount of days between post-test and maintenance probe. The data indicate that time since training had little effect on maintenance scores for Reinforcement and Pivot. Caregivers generally performed well during maintenance probes when asked to demonstrate the tool of Reinforcement regardless of how long it had been since their original training (post-test). Scores on the Pivot role-play were variable across time, with a slight decreasing trend. Scores in maintenance during Protect-Redirect role-plays show a distribution similar to Pivot with a more prominent decreasing trend.

Figure 2 displays the individual data for each participant. The data are distributed according to (1) scores on initial post-test and (2) scores on maintenance probes. The data are arrayed in rows, with the highest scores at the top left and lowest scores in the bottom right. These data show that all participants ultimately demonstrated 100% accuracy in the performance

of each of the three behavior management tools and all participants reached 100% on booster tests for all tools within a maximum of 2 booster sessions.

The data show that higher scores on post-tests were moderately predictive of higher scores on follow-up role plays, although there was considerable inconsistency in this relationship. There were six notable trends seen in the individual data. Role-plays scored at 100% during post-test with a corresponding score of 100% during maintenance occurred 68% of the time (34 out of 50 instances). Role-plays scored at 100% during post-test with a corresponding maintenance score of less than 100% occurred 32% of the time (16 out of 50 instances). Role-plays with scores less than 100% during post-test with a corresponding maintenance score of 100% occurred 37% of the time (7 out of 19 instances). Role-plays with scores less than 100% during post-test with a corresponding maintenance score that was higher than the post-test score occurred 63% of the time (12 out of 19 instances). Role-plays with scores less than 100% during post-test with the same score during the corresponding maintenance probe occurred 16% of the time (3 out of 19 instances). Role-plays with scores less than 100% with a corresponding maintenance score that was lower than the post-test score occurred 21% of the time (4 out of 19 instances); Each time this instance occurred it was during demonstrations of the Protect-Redirect role-play.

Figure 3 displays an error-analysis of the average percentage of steps incorrect across each tool. Caregivers were evenly separated into groups (7 to 8 caregivers per group) based on the number of months since their original post-test. Groups were 2-5 months, 6-9 months, and more than 10 months. The error-analysis did not show a notable difference between the groups, although it did show that the majority of errors across groups occurred in the Protect-Redirect tool, with errors occurring in each group, across all but one step of the tool.



Figures 4 and 5 display an error-analysis of the average percentage of steps incorrect per tool across groups for role-plays conducted immediately following booster sessions (Figure 4) and role-plays conducted during 1-week follow-up probes (Figure 5). 17 of the total 23 caregivers required booster training, and four of those caregivers required 2 booster sessions to reach the criterion for competent performance. A 1-week follow-up probe was not conducted with one of the caregivers because the caregiver separated from the facility. All caregivers who required booster sessions were able to perform the Reinforcement tool during the role play that immediately followed booster training, as well as during 1-week follow-up probes. Following booster training, few errors occurred for the Pivot and Protect-Redirect tools; however, more errors were observed for the Protect-Redirect tool than for other tools.

Figure 6 depicts a similar analysis. Each tool is comprised of a set of steps, some of which overlap. The steps that overlap in all three tools are highlighted in light gray. For example, “Use reinforcement/Tell the person what behavior you like” is step 1 of the Reinforcement tool. The “Use Reinforcement” tool is step 3 of the Pivot tool and step 5 of the Protect-Redirect tool. Figure 5 indicates that the “Use Reinforcement/Tell the person what behavior you like” step was more frequently performed incorrectly than other sub-steps in the “Use Reinforcement” tool and the “Use Reinforcement” tool was more frequently performed incorrectly than other steps in the Pivot and Protect-Redirect tools. Although data were not collected on subcomponents of “Use Reinforcement” when assessing the Pivot and Protect-Redirect tools, anecdotal reports from trainers support the account that step 1 (“tell the person what behavior you like”) was most frequently responsible for inaccurate performances. Approximately 18% of caregivers failed to correctly demonstrate this step during the Use Reinforcement Tool.

Overall, the results show that the skills taught during initial training maintained at acceptable levels across tools. For individuals who did not demonstrate maintenance of skills, no more than 2 booster sessions were required to reestablish 100% accuracy for all tools. Reinforcement tool skills were maintained with the least amount of error during follow-up testing, and individuals who did not maintain this skill at criterion levels required only one booster session to demonstrate 100% accuracy. In contrast, the skills involved in demonstrating the tool of Protect-Redirect were least effectively maintained, showing the most amount of error during follow-up testing and requiring up to 2 booster sessions to achieve mastery.

The results of the social validity assessment are displayed in Table 1. 21 out of 23 participants were surveyed. The table shows that, in general, caregivers agreed or strongly agreed that they were able to implement the tools as taught, the tools were useful in their work with residents, and the training was efficient and helpful. Items for which responses of “strongly agree or agree” that were not unanimous are highlighted in the table. Three of 21 caregivers noted that although they are able to use the tool of Reinforcement, they are not always able to identify opportunities to use the tool. One caregiver did not report using the skills with the residents. In addition, one caregiver did not find the follow-up training to be fast. It is possible that this caregiver’s response was influenced by having to participate in booster sessions and follow-up probes; however, because the social validity assessment was completed anonymously, it is not possible to verify this account. A few caregivers provided comments on their survey. Most of the comments were complementary, stating appreciation for the follow-up training and noting that it was a good refresher on tools to use with the residents. Two caregivers noted that the training needs to be more realistic and “techniques need revising”.

## CHAPTER 4

### DISCUSSION

The current project evaluated the maintenance of behavior management skills taught to caregivers at a large, state residential care facility. Role play tests were administered 2-31 months following training and, for cases in which skills did not maintain at criterion levels, remedial (booster) training was conducted and skills were reassessed until 100% accuracy on all tools was observed. Common errors within tools were analyzed, as well as trends across individual performances.

The current project represents an extension of Shivers' (2014) original project, which added to the behavior skills training literature by implementing BST in a large residential care facility and training to competency with groups of learners.

Relatively few studies have assessed maintenance of performance gains resulting from BST (Caravello, 2011; Miller et al., 2009; Mueller et al., 2003; Rosales, Stone & Rehfeldt, 2009; Van Camp et al., 2008). Studies reporting maintenance typically evaluated the extent to which skills were still demonstrated 4 months to 1 year following training. Booster sessions and re-training procedures described in these studies averaged 2 to 6 hours in length. In the current project 5-to-20 minute booster sessions were used to improve performance of targeted skills to 100% accuracy, which required no more than 2 booster sessions for any participant. Relative to the duration of booster training procedures reported in the BST literature, as well as the length of time necessary for retraining in other skill areas at the facility (e.g., cardiopulmonary resuscitation), the procedures evaluated in the current study appear both effective and efficient.

Some general patterns of responding were evident in caregivers' performances. First, few caregivers (22%) demonstrated perfect maintenance of previously learned skills. Second, errors did not seem to strongly co-vary with the number of months between the original training and maintenance testing. The time from post-test to maintenance probe did not seem to be a strong indicator of high or low maintenance test scores. Patterns were most apparent across tools; for example, the Use Reinforcement tool appeared to show generally stronger maintenance relative to other tools.

Several limitations exist with the current study. Measurement procedures for the Pivot and Protect-Redirect tools did not permit scoring of the individual steps of the Use Reinforcement tool, which was a subcomponent of the other tools. The checklists used to score Pivot and Protect-Redirect tools used a binary (yes/no) method to score the Use Reinforcement subcomponent; however, the Use Reinforcement tool itself contained six steps. Thus, for cases in which Pivot and Protect-Redirect tools were scored as inaccurate due to a failure to implement reinforcement, it is not possible to identify the subcomponent of Use Reinforcement responsible for inaccurate performance. A component analysis of steps incorrect for the Use Reinforcement tool indicated that errors occurred only during the demonstration of Step 1 (tell the person what behavior you like). Furthermore, trainers reported that the most frequently missed step of Use Reinforcement during testing of the Pivot and Protect-Redirect tools was "tell the person what behavior you liked". A similar limitation exists for the Reinforcement and Protect-Redirect checklists when the data collector is to record whether the caregiver accurately used the Pivot Tool in the presence of "Junk Behavior." Each individual tool includes another tool(s) and therefore requires that all subcomponents of the embedded tool are demonstrated in order for the embedded tool to be considered correct. Future research should include a means to identify

missed subcomponents for all tools, which could then be used to develop more directly targeted remedial training efforts.

The current project did not identify clear patterns associated with variables such as the latency from original training to maintenance testing, possibly due to the relatively small sample used in this study. Although the current project was able to assess maintenance with 23 caregivers, a larger number of participants may have shown clearer patterns between groups.

Finally, although the procedures were cost and time effective, the extent to which they can effectively be implemented by other behavior service professionals remains to be evaluated. Whereas a team of trained graduate students was available to conduct training and assessment procedures, as well as relieve caregivers of their duties during test probes, fewer resources are typically available in many applied settings. Future research should evaluate the extent to which transfer of these procedures to other behavior service professionals can be promoted.

The current study replicated and extended the methods and outcomes described by Shivers (2014) by implementing maintenance assessment and remedial training for a pool of participants from Shivers' original project, as well as implementing training, maintenance assessment, and remedial training for additional participants. Whereas Shivers did not systematically conduct or analyze retraining efforts during post-test probes, participants in the current study were trained to criterion before probes concluded and data were collected on every demonstration of each tool following retraining. It is notable that Shivers reported providing feedback and retraining for participants in the original study who did not initially demonstrate accuracy during post-testing; however, no objective data were reported.

The results of the current project, in combination with those from Shivers (2014), indicate that the BST system used in this training is a promising approach to implementing and

evaluating the effects of competency-based training on a large scale. Future efforts should attempt to analyze the extent to which this training ultimately results in improvements in how caregivers implement behavior management procedures with individuals receiving services. One possible avenue for such inquiry might be to develop a system for operationally defining opportunities to implement the skills taught in the current project and using the measurement systems described in this project to determine if caregivers can 1) identify those opportunities and 2) implement the appropriate tools with fidelity. Hopefully, the ultimate outcome of such efforts will be seen in improved behavior and a better quality of life for those in need of effective behavior management services.

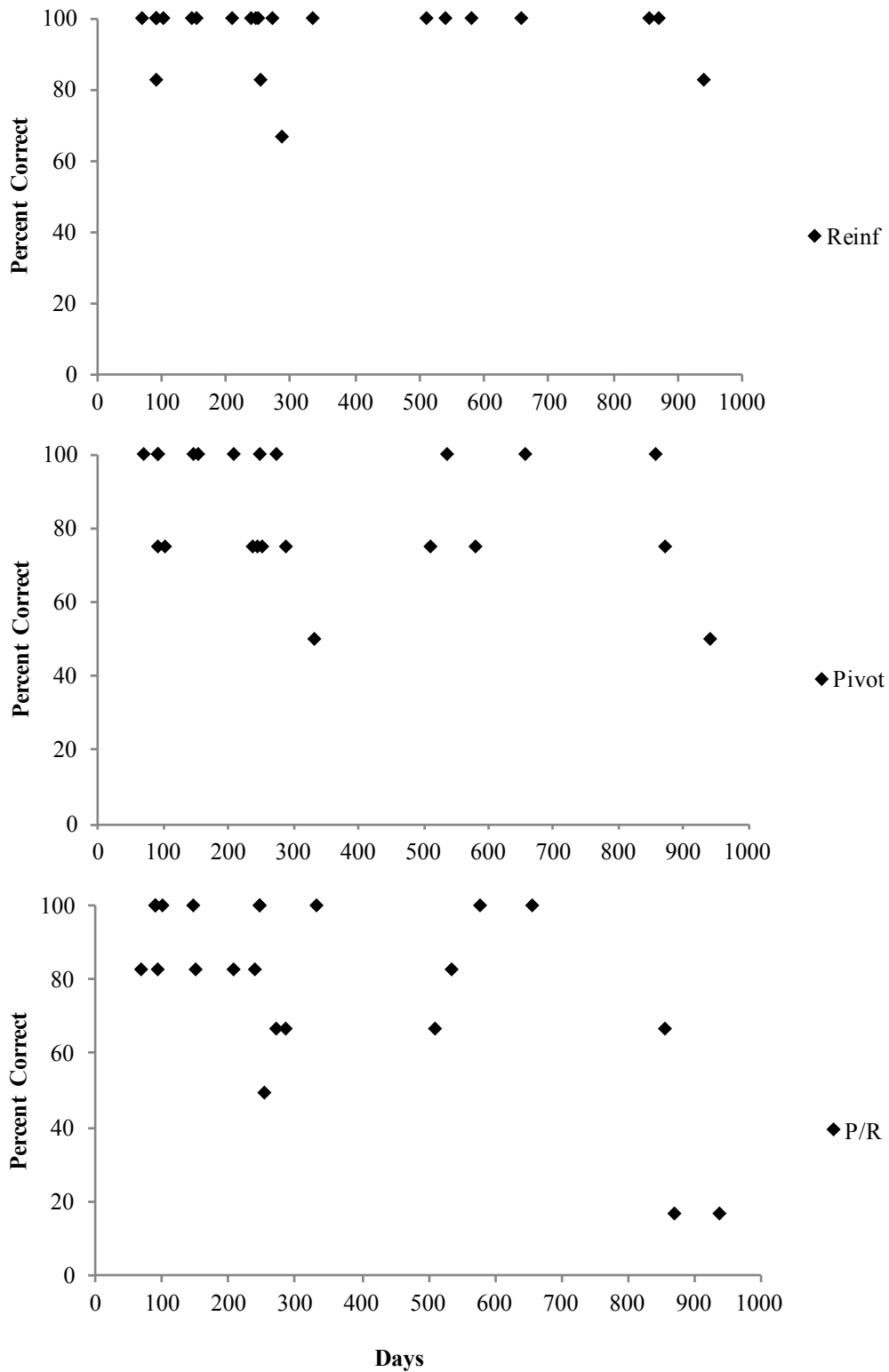


Figure 1. Maintenance scores for all participants across each tool according to the amount of days between post-test and maintenance probe

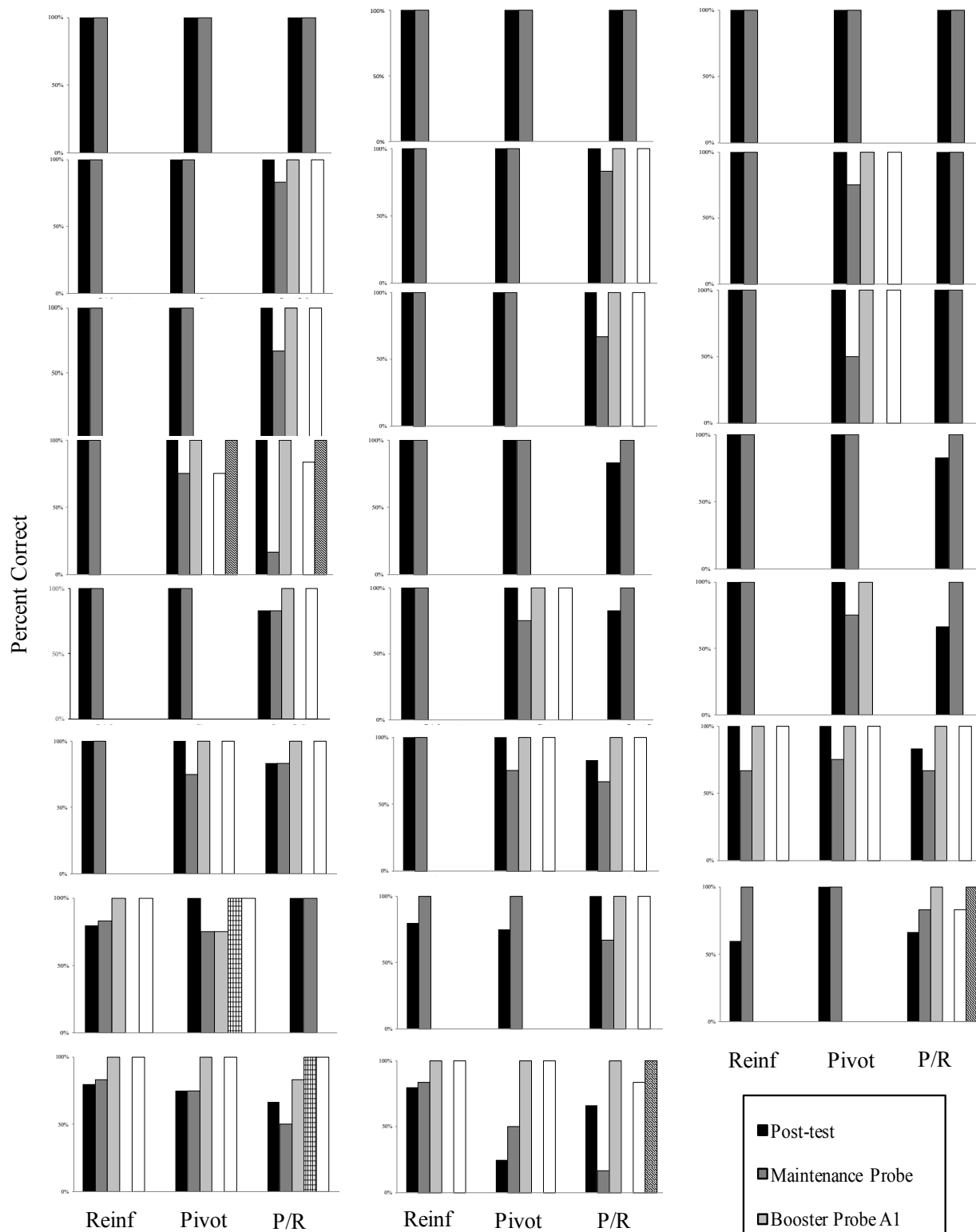


Figure 2. Individual data sets for each participant



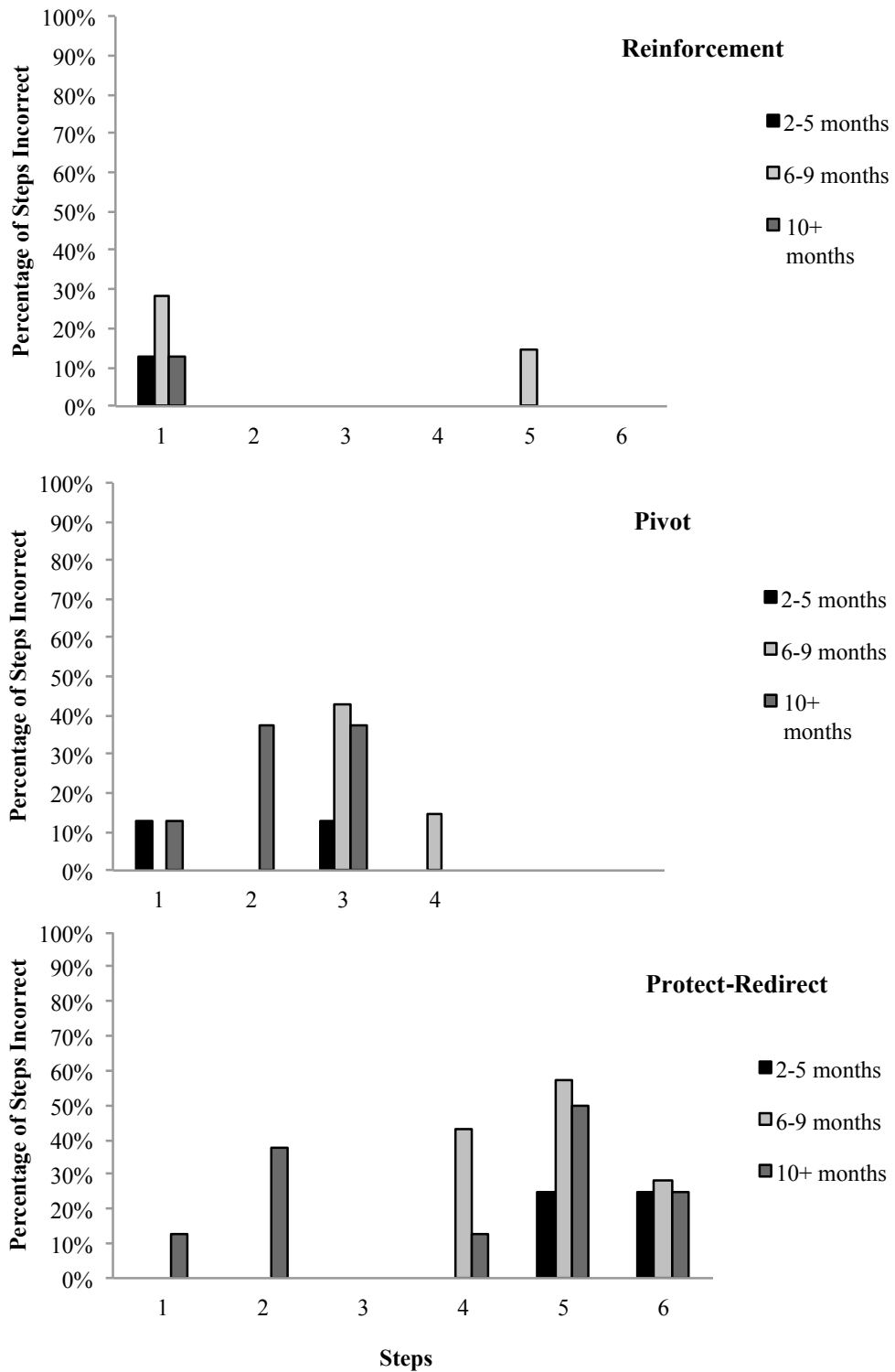


Figure 3. Error-analysis of 1<sup>st</sup> probe maintenance data. Average percentage of steps incorrect between each group, across each tool.

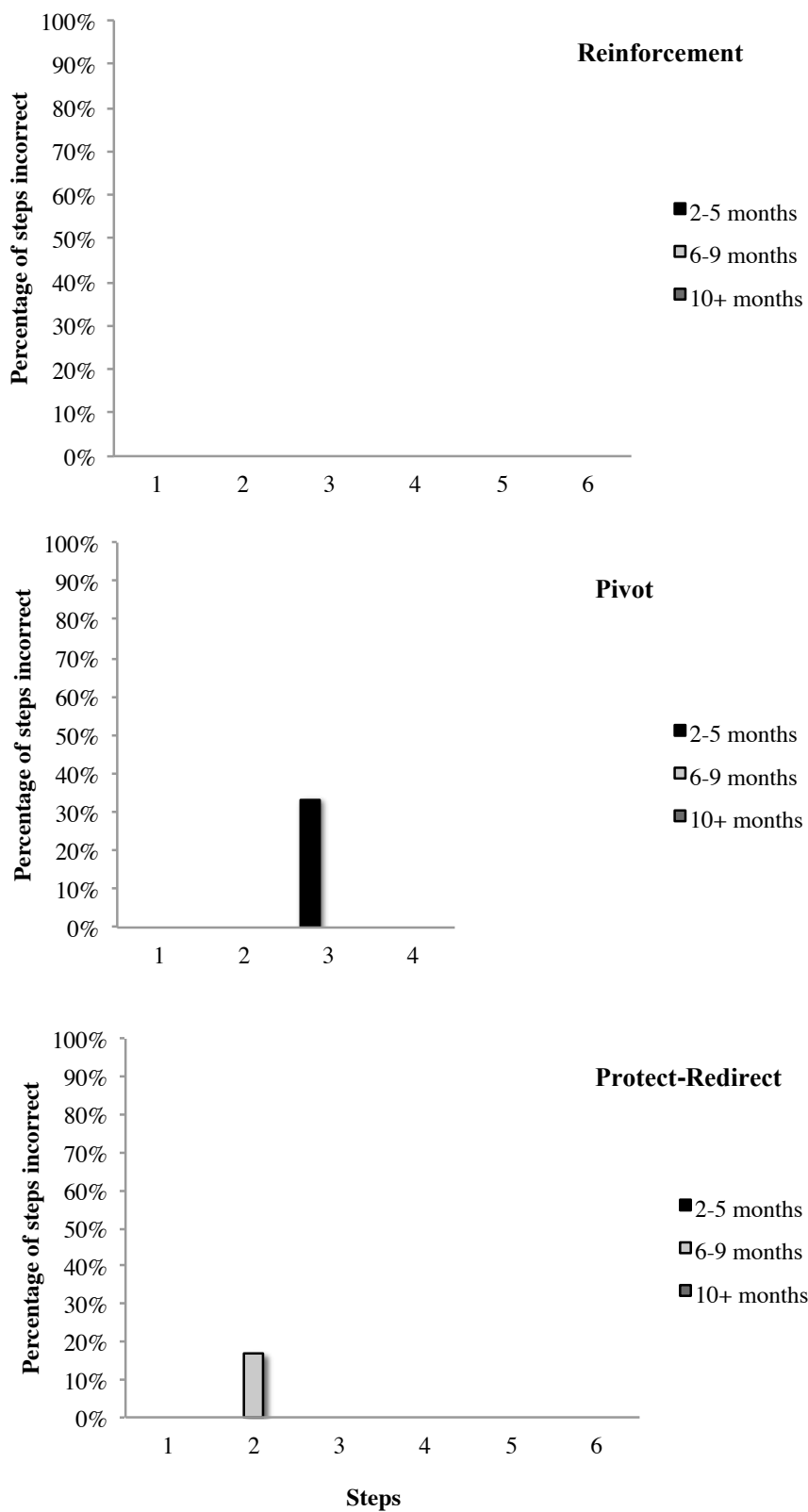


Figure 4. Error-analysis for the average percentage incorrect for role-plays conducted following booster sessions.

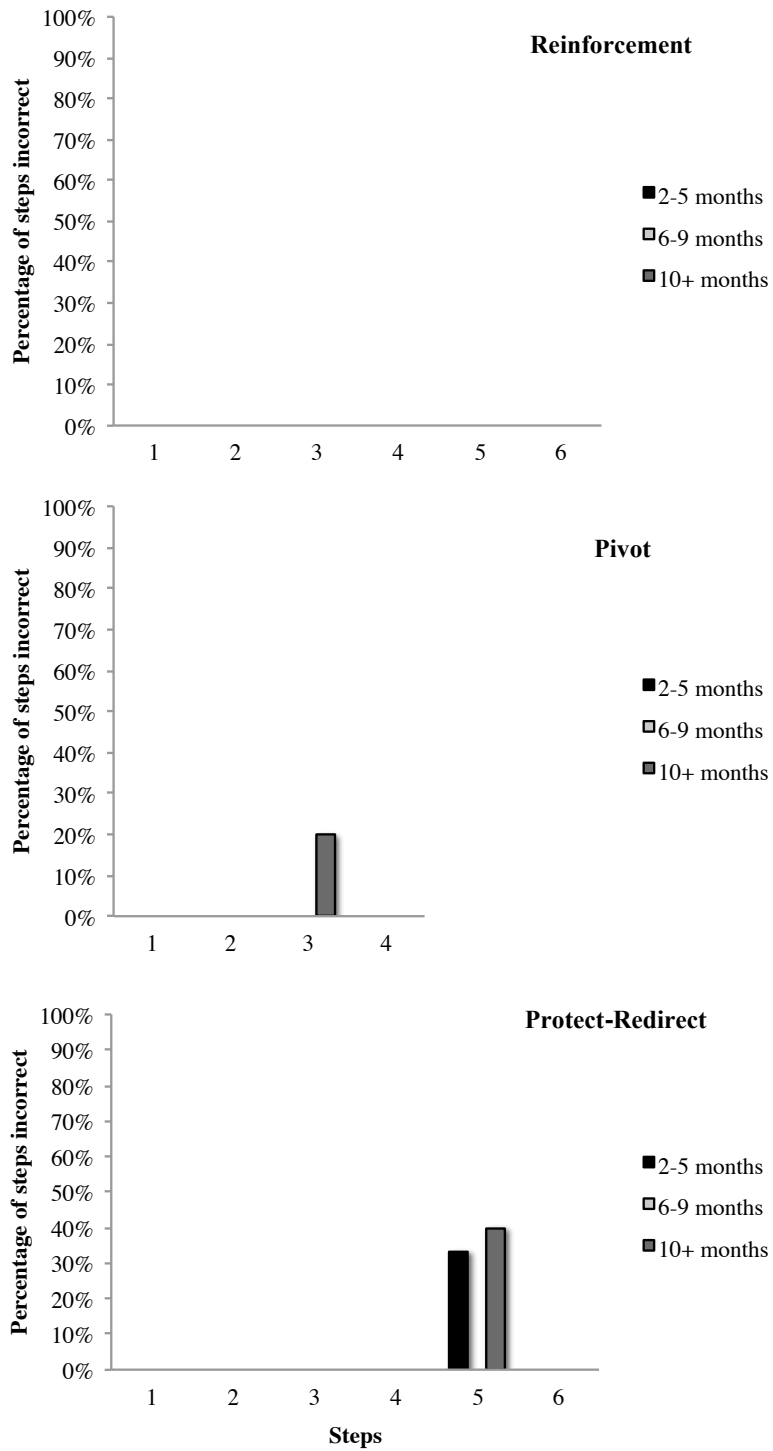


Figure 5. Error-analysis for the average percentage incorrect for role-plays conducted during 1-week probes.

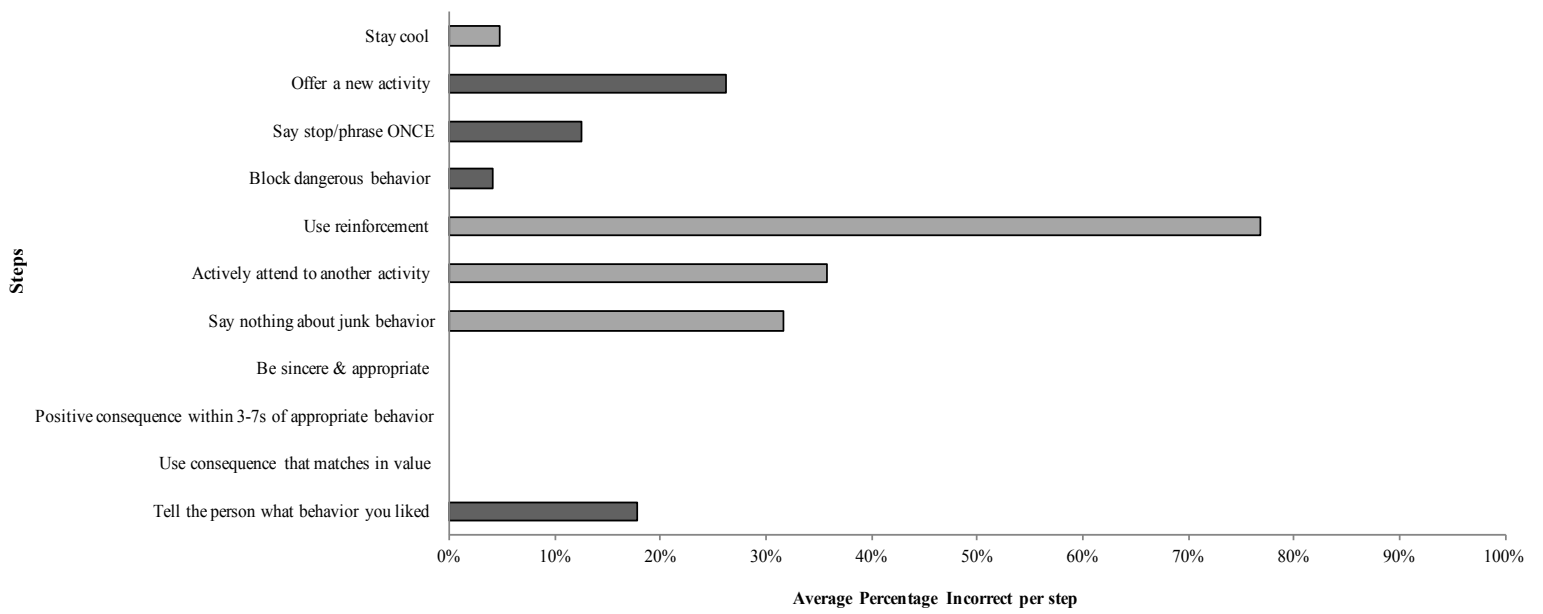


Figure 6. Average percentage of steps incorrect across all steps of each tool.

Table 1

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*Social Validity Questionnaire Results*

<u>Item</u>	<u>Score</u>
I am able to notice behaviors I like and want to see more of	<i>18 out of 21 agree or strongly agree</i>
I am able to use Reinforcement	21 out of 21 agree or strongly agree
I am able to notice Junk Behavior	21 out of 21 agree or strongly agree
I am able to use Pivot	21 out of 21 agree or strongly agree
I am able to notice dangerous behavior	21 out of 21 agree or strongly agree
I am able to use Protect-Redirect	21 out of 21 agree or strongly agree
I have used things I learned in my Psychology (Behavior Services) OJT training with the residents	<i>20 out of 21 agree or strongly agree</i>
I found the follow-up training to be fast	<i>20 out of 21 agree or strongly agree</i>
I found the follow-up training to be helpful	21 out of 21 agree or strongly agree

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\*Italicized items indicate low agreement

APPENDIX A  
STANDARD ROLE-PLAY CHECKLIST

**Maintenance Probe – DSP**

**OJT Post-test Date:** \_\_\_\_\_ **Today’s Date:** \_\_\_\_\_ **DSP Shift/Pattern #:** \_\_\_\_\_

**Use Reinforcement Tool Checklist**

**Staff Name & Apt.:** \_\_\_\_\_ **Data Collector (BARC Staff):** \_\_\_\_\_

Step				Post-Booster Probe			1 wk follow-up probe			Comments
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
1. Tell the person what behavior you liked <i>*The participant states an appropriate behavior that the client is engaging in</i>										
2. Provide a consequence for the behavior that matches the value of the behavior <i>*i.e. Verbal Praise, Break, Walk, Snack</i>										
3. Provide the positive consequence within 3-7 seconds of recognizing the appropriate behavior <i>*Within 3-7 seconds of client sweeping</i>										
4. Use sincere and appropriate facial expression, tone of voice and body language <i>*relaxed body posture, positive affect</i>										
5. Say nothing and do nothing about junk behavior throughout the process <i>*Mark Yes if Ignores “whining” *Mark No if argues with individual *Mark N/A if Instructor did not engage in Junk</i>										
6. Stay cool <i>*Score Yes if uses calm voice &amp; Avoids coercives *Score No if not calm or uses coercives *Do not mark N/A</i>										
	Booster Session needed? Y or N			Extra probes completed? Y or N			Extra probes completed? Y or N			Total # of probes:

**Maintenance Probe – DSP**

**OJT Post-test Date:** \_\_\_\_\_ **Today’s Date:** \_\_\_\_\_ **DSP Shift/Pattern #:** \_\_\_\_\_

**Pivot Tool Checklist**

**Staff Name & Apt.:** \_\_\_\_\_ **Data Collector (BARC Staff):** \_\_\_\_\_

Step	Post-Booster Probe			1 wk follow up probe			Comments	
	Yes	No	N/A	Yes	No	N/A		
1. Say nothing about the junk behavior <i>*Mark No if they talk about the whining, say “don’t do that” or “stop”, talk about throwing objects</i>								
2. Actively attend to another person or activity <i>*For example mark Yes if looking at paperwork or pretend to engage with materials or looks/turns away from client</i>								
3. Provide reinforcement for the better behavior. <i>Within 10-seconds of client picking up work materials or working on activity reinforce i.e. Verbal Praise, Break, Walk, Snack</i> <i>Mark No if praise is not specific</i>								
4. Stay Cool <i>*Score Yes if uses calm voice &amp; Avoids coercives</i> <i>*Score No if not calm or uses coercives</i> <i>*Do not mark N/A</i>								
	<b>Booster session needed?</b> Y or N			<b>Extra probes completed?</b> Y or N			<b>Extra probes completed?</b> Y or N	<b>Total # of probes:</b> _____



**Maintenance Probe – DSP**

**OJT Post-test Date:** \_\_\_\_\_ **Today’s Date:** \_\_\_\_\_ **DSP Shift/Pattern #:** \_\_\_\_\_

**Protect/Redirect Tool Checklist**

**Staff Name & Apt.:** \_\_\_\_\_ **Data Collector (BARC Staff):** \_\_\_\_\_

Step	Post-Booster Probe			1 wk follow-up probe			Comments	
	Yes	No	N/A	Yes	No	N/A		
**Must successfully complete any step on 100% of opportunities to score a Yes**								
1. Get within arm’s reach of the person and physically intervene to stop/block the dangerous behavior within 10s								
2. Can say stop/phrase ONCE and continue blocking without talking								
3. Stay Calm and Cool (avoid coercion)								
4. Ignore Junk Behavior								
5. When you see calm or better behavior, use reinforcement <i>*Score Yes if Reinforcement is used on at least 1 opportunity</i> <i>*Score No if praise is not specific</i>								
Either: a) Wait (block if necessary) b) Offer a new activity								
	<b>Booster session needed? Y or N</b>			<b>Extra probes completed? Y or N</b>			<b>Extra probes completed? Y or N</b>	<b>Total # of probes: _____</b>

APPENDIX B  
ADDITIONAL DATA SHEETS

Additional Booster Session Probes – DSP Circle the one that applies: Following Booster Session or Following 1 wk probe

Today's Date: \_\_\_\_\_

### Use Reinforcement Tool Checklist

Staff Name & Apt.: \_\_\_\_\_ Data Collector (BARC Staff): \_\_\_\_\_

Step	Probe 1			Probe 2			Probe 3			Probe 4		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Tell the person what behavior you liked <i>*The participant states an appropriate behavior that the client is engaging in</i>												
2. Provide a consequence for the behavior that matches the value of the behavior <i>*i.e. Verbal Praise, Break, Walk, Snack</i>												
3. Provide the positive consequence within 3-7 seconds of recognizing the appropriate behavior <i>*Within 3-7 seconds of client sweeping</i>												
4. Use sincere and appropriate facial expression, tone of voice and body language <i>*relaxed body posture, positive affect</i>												
5. Say nothing and do nothing about junk behavior throughout the process <i>*Mark Yes if Ignores "whining"</i> <i>*Mark No if argues with individual</i> <i>*Mark N/A if Instructor did not engage in Junk</i>												
6. Stay cool <i>*Score Yes if uses calm voice &amp; Avoids coercives</i> <i>*Score No if not calm or uses coercives</i> <i>*Do not mark N/A</i>												
<b>Did they meet passing criteria?</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>

**Additional Booster Session Probes – DSP Circle the one that applies:** Following Booster Session **or** Following 1 wk probe

**Today’s Date:** \_\_\_\_\_

**Pivot Tool Checklist**

Staff Name & Apt.: \_\_\_\_\_ Data Collector(*BARC Staff*): \_\_\_\_\_

Step	Probe 1			Probe 2			Probe 3			Probe 4		
	Yes	No	N/A	Yes	No	NA	Yes	No	N/A	Yes	No	N/A
<b>1. Say nothing about the junk behavior</b> <i>*Mark No if they talk about the whining, say “don’t do that” or “stop”, talk about throwing objects</i>												
<b>2. Actively attend to another person or activity</b> <i>*For example mark Yes if looking at paperwork or pretend to engage with materials or looks/turns away from client</i>												
<b>3. Provide reinforcement for the better behavior.</b> <i>Within 10-seconds of client picking up work materials or working on activity reinforce i.e. Verbal Praise, Break, Walk, Snack</i> <i>Mark No if praise is not specific</i>												
<b>4. Stay Cool</b> <i>*Score Yes if uses calm voice &amp; Avoids coercives</i> <i>*Score No if not calm or uses coercives</i> <i>*Do not mark N/A</i>												
<b>Did they meet passing criteria?</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>	<b>Yes</b>	<b>or</b>	<b>No</b>

**Additional Booster Session Probes – DSP Circle the one that applies:** Following Booster Session **or** Following 1 wk probe

**Today's Date:** \_\_\_\_\_

### Protect/Redirect Tool Checklist

Staff Name & Apt.: \_\_\_\_\_ Data Collector (*BARC Staff*): \_\_\_\_\_

Step	Probe 1			Probe 2			Probe 3			Probe 4		
**Must successfully complete any step on 100% of opportunities to score a Yes**	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
6. Get within arm's reach of the person and physically intervene to stop/block the dangerous behavior within 10s												
7. Can say stop/phrase ONCE and continue blocking without talking												
8. Stay Calm and Cool (avoid coercion)												
9. Ignore Junk Behavior												
10. When you see calm or better behavior, use reinforcement <i>*Score Yes if Reinforcement is used on at least 1 opportunity</i> <i>*Score No if praise is not specific</i>												
Either: c) Wait (block if necessary) d) Offer a new activity.												
<b>Did they meet passing criteria?</b>	Yes	or	No	Yes	or	No	Yes	or	No	Yes	or	No

APPENDIX C  
STANDARD ROLE-PLAY SCRIPT

### **OJT Role Plays-**

Tell the OJT “you will be given 3 scenarios and you will have to decide for each scenario which tool you will use (Use Reinforcement, Pivot, Protect/Redirect)

#### **Use Reinforcement:**

*Tell the OJT:* “you are the staff, I am the individual, we are in the apartment and I am completing chore of sweeping the floor”

#### **BARC/Psychologist/Trainer:**

1. Pretend to sweep the floor for approximately 3-5seconds (**without talking**).
2. When you are done sweeping the floor say “I’m all done.”
  - a. If the OJT says “great job” or “do you want to (*go for a walk, watch tv, etc*)” say yes and **end the role play**
  - b. If the OJT places a demand for example “put the broom away” engage in junk behavior “whine I don’t want to put the broom away/no/I don’t want to” for 3-5seconds.
    - i. If the OJT says “ok you don’t have to” **end the role play**.
    - ii. If the OJT ignores the junk; pretend to put the broom away then **end the role play**

#### **Pivot:**

*Tell the OJT:* “you are the staff, I am the individual, we are at workshop and my workshop task is to count the items on the table.”

#### **BARC/Psychologist/Trainer:**

1. *Engage in Junk:* Say “I don’t like workshop, I don’t want to be here, I don’t like you, you are a stupid staff” while tossing the workshop items around the table and on the floor. Do this for about 5-10seconds
2. *Engage in Better Behavior:* Then begin to count the items on the table and pick up/count any items on the floor.
3. When you count all the items say “I’m all done”
  - a. If the OJT provides praise; **end the role play**
  - b. If the OJT places another demand or uses a coercive (ex. criticizes) engage in about 5s of whining/junk behavior and then calm down giving the OJT a chance to reinforce
    - i. **end the role play** when the OJT pivots back and reinforces calm behavior or after 10s of no responding from the OJT

#### **Protect/Redirect:**

*Tell the OJT:* “you are the staff, I am the individual and we are sitting in the apartment”

#### **BARC/Psychologist/Trainer:**

1. Without talking hit your head with an open palm
2. Do not respond to any request made by the OJT to stop or put hands down.
3. Place your hands in lap after 5-10s of head hitting
4. When the OJT talks to you (praise, asks what’s wrong, offers activity) engage in Junk behavior for about 3-5s (No Talking-stomp your feet, hit the table, wave your hands); then sit calmly.
5. Comply with any request that the OJT makes or answer yes to any question asked
6. **End role play**

APPENDIX D  
VIGNETTE NARRATION SCRIPT



While watching the following 9 videos, describe each step of the tool to the OJTs.

**Use Reinforcement 1:** *Individual is emptying the dishwasher*

- In this example the staff is specific, tells the person what behavior they liked, “nice job putting the dishes away” & “thank you for asking”
- Staff provides a consequence that matches in value. Verbal praise and a high-five matches putting away dishes
- Staff provides the praise within 3-7 seconds of recognizing the good behavior or the behavior they liked
- Staff was sincere and enthusiastic with their praise and body language
- There was no junk in this example, but if there had been staff should Pivot (ignore it)
- And the whole time staff stayed calm, didn’t use any coercives.

**Use Reinforcement 2:** *Staff ask individual to set table*

- In this example the staff is specific, tells the person what behavior they liked, “putting the glasses in the right spot” & “nice job trying hard to help”
- Staff provides a consequence that matches in value. Verbal praise matches in value
- Staff provides the praise within 3-7 seconds of recognizing the good behavior or the behavior they liked
- Staff was sincere and enthusiastic with their praise and body language
- There was no junk in this example, but if there had been staff should Pivot (ignore it)
- And the whole time staff stayed calm, didn’t use any coercives.

**Use Reinforcement 3:** *Staff sitting with calm individual while hyper individual is bothering him*

- **ASK:** in this example what type of behavior is running around saying “hey” “hey” (*Junk*)
- So since it is Junk behavior the staff are going to Pivot away from it, they are going to ignore it.
- When the individual says “he’s bothering me” that’s good behavior we like and want to reinforce
- So staff are specific and say “thanks for telling me”
- Staff provided verbal praise which matches in value, and offers a different activity.
- Staff provided this within 3-7s of seeing the appropriate behavior.
- The whole time staff used sincere facial expressions and tone of voice, ignored junk behavior, and stayed cool.

**Pivot 1:** *Staff sitting with 2 individuals, one playing nicely and one yelling*

- **ASK:** what type of behavior is Joe engaging in (the yelling): Junk
- Staff say nothing about the Junk behavior
- Step 2 is actively attend to another person, activity or behavior, in this case Staff are pivoting to their paperwork and waiting for better behavior.

- When Joe is calm (about 30seconds in) **ASK:** is sitting quietly better behavior? : Yes
- Staff pivot back and provide reinforcement for this better behavior. Remember to always be specific when you provide reinforcement.
- After the praise & Joe yells **ASK:** what type of behavior is that? :Junk
- So since he engages in more Junk staff pivots away back to another person/activity/behavior; this time staff pivots to the other individual and provides specific praise for that behavior.
- Waiting for better behavior, when Joe says “I don’t like him” staff give specific praise “thanks for telling me”
- And the whole time staff remained calm and avoided coercives.

**Pivot 2:** *Individual is working at workshop with staff*

- **ASK:** What type of behavior is whining? : Junk
- Staff say nothing about the Junk behavior
- Staff look away, she’s looking at her water bottle and watch
- When she has better behavior staff Pivot back and provide specific reinforcement “nice job trying”
- Individual has more junk behavior so staff Pivots away again. Remember you may have to pivot away multiple times.
- When she has better behavior staff provides specific reinforcement “nice job picking up the pieces.
- And the whole time staff remained calm and avoided coercives.

**Pivot 3:** *Individual is banging the door while staff folds laundry*

- **ASK:** what type of behavior is that (banging)? : Junk
- Staff says nothing about junk behavior and actively attends to another activity by folding the laundry. They are waiting for better behavior.
- **ASK:** is this better behavior (when Matt starts folding laundry)? : Yes
- Staff provides reinforcement for the better behavior
- And the whole time staff remained calm and avoided coercives.

**Protect/Redirect 1:** *Individual hitting head*

- **ASK:** What type of behavior is that? : Dangerous
- So Staff is going to get within arm’s reach and say stop once; remember this is dangerous behavior so we want to get there quickly
- Step 2 of protect/redirect is to block without talking. This is the protect part. Staff are using their hands to block the hits and the whole time she is not talking.
- Once Gloria calmed down Staff used reinforcement for that better calm behavior. Remember we want to be specific and tell them what behavior we liked so she said “Thanks for calming down Gloria”.

- We also want to make sure we provide reinforcement before we offer any new activities, this helps us make sure the person is calm and that we aren't providing preferred activities for junk or dangerous behavior.
- **ASK:** After reinforcement was Gloria calm or did she engage in Junk behavior? : Junk
- Remember we want to ignore junk so Staff pivot away and wait for better behavior
- When the individual engages in better behavior or calm behavior the staff pivots back and uses reinforcement again. Remember we want to specifically reinforce EVERY time we see better behavior or behavior we like!
- Since Gloria stayed calm after reinforcement staff can now offer a new activity.

**Protect/Redirect 2:** *Individual engaging in aggression towards property (throwing items at staff)*

- In this example staff tell the individual to stop and gets more junk behavior so the staff pivot away.
- While the staff is pivoting away the individual starts walking to the staff to hit them, **ASK:** is this dangerous or junk now? :dangerous
- *Pause video for this point:* For behavior like aggression toward staff or aggression toward property the protect part of protect/redirect is for staff to move out of the way (or objects/furniture/physical hits) and block the person from throwing anything that could hurt themselves. Staying out of the way, waiting, making sure they are still safe and that no other individuals walk in and get hurt.
- That's what the staff is doing in this video, moving out of the way but making sure the individual is safe. The whole time staff is not talking and not staring at the person.
- Once there person has calmed down Staff provides specific reinforcement for the calm behavior
- The individual engages in more junk behavior so staff wait and pivot away
- When the person is calm again Staff provide reinforcement again **ASK:** what is important about our praise? : its specific
- Since the individual was receptive to the praise staff offered an a new activity

**Protect/Redirect 3:** *there are 2 individuals and 2 staff, one of the individuals begins engaging in attempted PAO*

- Individual starts off asking staff for snacks, then she begins grabbing staff. Staff say stop one time and then block without talking.
- The staff are not attending to any of the junk behavior
- When the individual that is being aggressive goes over to the other individual staff get in between and block, they are doing this without talking. They are waiting for better behavior.

- In this example you have another staff present that can help move the other individual out of the way
- After the other individual leaves, staff continue to ignore the junk behavior and wait for better behavior.
- When the individual calms down and asks for a walk, staff provides reinforcement by taking them for a walk.
- The whole time the stay remained stayed cool and calm, avoiding coercives.

APPENDIX E  
SOCIAL VALIDITY QUESTIONNAIRE

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Don't Know</b>
<b>I am able to notice behaviors I like and want to see more of</b>					
<b>I am able to use Reinforcement</b>					
<b>I am able to notice Junk Behavior</b>					
<b>I am able to use Pivot</b>					
<b>I am able to notice dangerous behavior</b>					
<b>I am able to use Protect-Redirect</b>					
<b>I have used things I learned in my Psychology (Behavior Services) OJT training with the residents</b>					
<b>I found the follow-up training to be fast</b>					
<b>I found the follow-up training to be helpful</b>					

**Additional Comments:**

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