

EVALUATING A POSITIVE PARENTING CURRICULUM PACKAGE: AN  
ANALYSIS OF THE ACQUISITION OF KEY SKILLS

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The effectiveness of a parenting curriculum designed for parents who exhibit risk factors for child maltreatment was evaluated. Six skills were taught over a five-week series of three-hour classes. A written quiz containing questions corresponding to skills taught in each class was administered to participants before the series of classes, following each class, and after completion of all classes. Repeated administration of the quiz permitted an analysis of skill acquisition. A role-play assessment was conducted prior to and following the series of classes. The results demonstrated an improvement in the participants' ability to recognize correct answers in a multiple choice format and demonstrate the behavioral skills taught in class within a role-play context.

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CHAPTER 1  
INTRODUCTION  
Child Welfare

The child welfare system in the United States is a vast and complex array of state and local agencies, private service providers, courts, and public governmental programs that share the common mission of promoting the well-being of children (Bass, Shields & Behrman, 2004). An underlying premise of the child welfare system is that, whenever possible, it is in children's best interest to be raised in the care of their birth parents (Wulczyn, 2004). Families can become involved in the child welfare system for a variety of reasons. The initial stage of entry into the system typically begins with a referral (United States Department of Health and Human Services, 2007) in which a professional in the community, such as a teacher, social worker, or nurse or another community member, such as a neighbor initiates an allegation of abuse or neglect of a child or children (Bass et al., 2004). After the relevant agency (e.g., in Texas, Child Protective Services [CPS]) has received a referral and it has been determined that the referral meets the states' standards for further assessment, an investigation of the screened-in referral begins (United States Department of Health and Human Services, 2007). During 2005, the United States Department of Health and Human Services received about 3.3 million referrals of alleged child maltreatment and 62% of those referrals reached the investigation stage. Following investigation, the agency responds based on individual states' definitions of abuse and neglect as well as the safety needs of the child.

The Adoption Assistance and Child Welfare Act of 1980 (The Adoption Assistance and Child Welfare Act, P.L. 96-272, 1980) placed an emphasis on family preservation and reunification and requires agencies to document that “reasonable efforts” are made to prevent or avoid removing the child from their home. Furthermore, when children are removed from the custody of birth parents, the agency must make continuing efforts to establish a safe home environment for the child’s return. These efforts must be made in a timely manner. To insure the expeditious transition from temporary foster care to a permanent placement, permanency placement hearings were required to be held within eighteen months of removal of the child from his or her home.

The Adoption and Safe Families Act of 1997 (The Adoptions and Safe Families Act, P.L. 105-89, 1997) clarified the notion of “reasonable efforts” by issuing a timetable and guidelines for removal and reunification. Policies were established to further expedite permanency planning, implementing a stricter twelve-month time limit for permanency placement hearings, and allowing courts to simultaneously pursue different permanency goals for the child (concurrent permanency planning).

Permanency planning has been defined as “the systematic process of carrying out within a brief time-limited period, a set of goal directed activities designed to help children live in families that offer continuity of relationships with nurturing parents or caretakers and the opportunity to establish lifetime relationships” (Seltzer & Blocksberg, 1987, p. 65) and is the topic of a growing body of literature (Fein, Malucio, Hamilton & Ward, 1983). In the absence of clear evidence to the contrary, it is assumed that birth parents will act in the best interests of their children and they should have the right to care for and maintain custody of those children. Therefore, family reunification is the



most frequently stated permanency planning goal and is the most frequent outcome for children placed in foster care. In order to grant primary caregiving rights to someone other than birth parents, the court must show parental unfitness and, until it does so, reunification must remain the primary goal of child welfare services (Wulczyn, 2004).

Ironically, higher rates of unplanned removal of children from their current placement, or “disruptions,” have been reported following reunification than following adoption. For example, Lahti (1978) found that the least stable type of placement following foster care was with the biological family. Similarly, Block (1981) reported that 28% of 314 children who were discharged from foster care and placed back with their biological parents subsequently returned to foster care facilities. Fein et al. (1983) investigated permanency planning in a public child welfare agency by tracking the placements of 187 children between 1979 and 1981. Of the 62 children that were returned to biological parents, 20 were no longer with the parents at the end of the study.

Placement of children in the homes of relatives is a frequent option when birth parents are unable to provide a safe home for their children. In fact, kin have been identified as the fastest-growing group of foster care providers (Bass et al., 2004). Kinship placement is a preferred choice when foster care is deemed necessary and there is a relative who is able and willing to care for the child. Kin may be defined by the state in various ways and may include not only biological relatives but god parents, family friends, or others who have a strong, pre-existing emotional bond with the child (Geen, 2004). Although there are clear advantages to kinship placement, such as the pre-existing bond between children and caregivers, there are disadvantages associated

with this type of placement (Bass et al., 2004). Compared to non-related foster parents, kin caregivers are typically older and more likely to report being in poor health or to have a debilitating condition. Also, children who are placed with kin tend to have more frequent unsupervised contact with birth parents, potentially placing children at greater risk of additional abuse (Bass et al., 2004; Geen, 2004).

Thus, although public policy emphasizes maintenance of the biological family unit or placement within the extended family, research outcomes indicate that these placements may not be optimal according to some measures of success (e.g., placement disruption). The disproportionate failure of these placements indicates a need to develop interventions to improve the parenting practices of biological family members who have had children removed from their homes or have been identified as at risk for neglect or maltreatment. One potential approach to this issue is behavioral parent training.

### Behavioral Parent Training

Behavioral parent training, as described by the United States Center for Disease Control and Prevention (National Center for Injury Prevention and Control [NCIPC], 2004) utilizes systematic, data-based procedures to train multiple parenting skills and promote positive interactions between parents and children. Behavioral parent training has been identified as a priority area for research and development by the Centers for Disease Control and Prevention (CDC), and this agency has provided support for evaluations of an array of parenting interventions. For example, researchers at the University of South Carolina are currently conducting a large scale evaluation of the effectiveness of the Positive Parenting Program (Triple P) (Prinz, 2007). The Triple P

program describes five levels of intervention that differ with respect to the intensity of the interventions (Prinz, 2007; Sanders, Markie-Dadds, & Turner, 2003; Sanders & Turner, 2005). The fifth level of intervention is an enhanced program, called Pathways Triple P, which adapts services for parents who have been identified as at-risk for abuse or neglect (Sanders et al., 2003). Parenting Our Children to Excellence (PACE) (Stambor, 2006), a program operated through Purdue University, provides group parenting interventions for families who have been identified by preschool and day care providers as having a low socioeconomic status (NCIPC, 2004; Stambor, 2006). Two projects initially developed at Southern Illinois University, Project 12-Ways (Lutzker, 1994) and Project SafeCare (Lutzker, Bigelow, Doctor & Kessler, 1998) address ecological, or broad environmental and historical factors that may be correlated with child maltreatment. For example, Project SafeCare provides training in a variety of skill areas, including health, safety, and parent-child interactions (Gershalter-Molko, Lutzker, & Wesch, 2003; Lutzker et al., 1998). Currently, researchers from the University of Oklahoma's Center on Child Abuse and Neglect (State Interagency and Child Abuse Prevention Task Force, 2006) are working to compare Project SafeCare to existing services aimed a prevention of child maltreatment (Centers for Disease Control and Prevention, 2007; State Interagency and Child Abuse Prevention Task Force, 2006).

Efforts to improve the parenting skills and practices of foster parents are often offered through state-supported agencies and programs. Puddy and Jackson (2003) conducted a recent evaluation of the Model Approach to Partnerships in Parenting/ Group Preparation and Selection of Foster and/or Adoptive Families (MAPP/ GPS), a widely used program aimed at providing skills necessary for successful foster parenting.

Three measures were assessed. First, a questionnaire addressing 12 overarching goals of the MAPP/GPS training (e.g., building self-esteem, working in partnerships) was administered to the parents. A second questionnaire assessed specific areas of parenting knowledge such as why children behave, communication, methods to increase good behavior, time-out, stopping bad behavior, and addressing children's feelings. Third, the parents viewed fifteen 30-s video recordings of parent and child interactions and were asked to agree or disagree with questions pertaining to the interaction. Parents who received MAPP/GPS training demonstrated a significant difference in 4 of the 12 goal areas from the first questionnaire, 3 of which focused on foster parents' involvement with the foster care system rather than improvements in parenting skills. Specifically, parents improved their measures on administrative skills including working in partnerships with the foster agencies, making informed decisions about fostering, knowing one's family, and assuring a healthy and safe environment. The foster parents also demonstrated an improvement in their knowledge of punishment and consequences, but did not show improvement in their knowledge of ways to increase good behavior. The researchers concluded that MAPP/GPS training did not sufficiently train basic parenting skills and may even be detrimental to the development of positive parenting skills. The authors suggest that the program offers less than adequate training to a population that requires advanced skills due to the challenging behavioral problems of foster children. Further, the popularity of the program allows for a large number of foster parents to "continue to be meagerly served" (Puddy & Jackson, 2003, p. 1006).

A 30-hr parent training curriculum (Tools for Positive Behavior Change) using a behavior analytic model was established on a pilot basis in Florida in 1996 (Behavior Analysis and Services Program [BASP], 2007). The curriculum was based largely on work by Latham (1990) and focuses on teaching positive behavior management techniques, or “tools,” to parents using techniques such as structured lectures, modeling, role-playing, and feedback (Behavior Analysis and Services Program, 2007; Van Camp, 2004, Van Camp, Vollmer, Goh, & Whitehouse, in press). Based on encouraging outcomes of the Tampa-based pilot project, Florida’s Department of Children and Families entered into a contract with the University of Florida and the University of South Florida expanding BASP to all of the 15 statewide service districts. The project provides performance-based parent training to multiple populations involved in the child welfare system including foster, adoptive, and biological caregivers as well as staff members, and provides assessment and treatment on individual cases for children with severe problem behaviors (Behavior Analysis and Services Program, 2007; Van Camp, 2004).

Some preliminary evaluations of the BASP have been conducted. Van Camp (2004) examined factors associated with placement disruptions (risk assessments), as well as aspects of classroom training, including changes in parent behavior, class attendance and attrition, and trainee satisfaction. Participants were recruited from 3 of Florida’s 15 service districts. Placement stability risk ratios were based on the unconditional probability of placement instability (defined as more than 3 disruptions during the service period) compared to the conditional probability of placement instability, given the presence of different factors (e.g., age). Child characteristics that

were correlated with increased placement stability included increased age, increased age of entry into care, and a diagnosis of an emotional disability. Generally, child gender, race, and number of caseworkers were not shown to be correlated with risk of placement instability. Parent-based characteristics correlated with disruption included the number of years of foster parent service (more disruptions occurred during early years of service) and a high number of children in the home.

Van Camp et al. (in press) evaluated pre- and post-training role-play performances of caregivers. In addition to the typical components of the positive parenting course (i.e., lecture, model, role-play, and feedback), the participants were assigned weekly readings from *The Power of Positive Parenting* (Latham, 1991). The participants were asked to collect data on the behavior of their children and to complete homework assignments that corresponded to the tools taught during the course.

During the 10-week course the participants were taught 9 general intervention techniques, each broken down into a list of steps, or “task analysis.” The percentage of steps correctly performed by participants was measured during scripted pre- and post-training role-play scenarios. During role-plays, the trainer acted out the role of the child, providing participants opportunities to utilize the skills targeted during training. Across the three districts, parents who participated showed improvement from pre- to the post-training role-play scores, with an average increase of 38 percentage points across groups. Although improvements were observed across skill areas, the lowest post-class scores were observed with more complex skills (i.e., skills that consisted of more steps). The substantial improvements in parent scores during role-plays are tempered by average IOA coefficients from these three districts of 75% for the pre-training

assessments and 84% for the post training assessments; a higher level of measurement error than is typical of behavior analytic research. Furthermore, the observer for each of the role-play assessments was aware of whether or not the participant had undergone training and the data may have been influenced by observer expectancy (Cooper, Heron & Heward, 1987, p. 102).

Van Camp's (2004) evaluation of a large scale application of behavior analytic parent training and related services with foster parents and children provided preliminary support for BASP's approach. Additional evaluations have produced similarly encouraging findings regarding the broadly measured effects of the BASP program. For example, a comparison of disruption rates between parents who had received BASP training and those who had not, showed substantial gains in the average number of months of continuous placements for parents trained through BASP (Van Camp, Montgomery, Goh, & Vollmer, 2006).

Van Camp et al. (in press) evaluated the effects of the curriculum using a multiple baseline across skills design with four participants. Two of the participants were exposed to the 10-week, 30-hr curriculum package described above and the other two participants were exposed to a shortened, 6-hr version of the curriculum. Multiple role-play assessments were conducted prior to training (baseline) as well as following training for all participants. Substantial improvement in role-play performances were observed for all participants following training, and the improvements corresponded with training for each skill. However, these outcomes must be interpreted with some caution, as IOA for role-play assessments averaged 82%, suggesting the possibility of

measurement error. Furthermore, because observers were aware of the training status, the threat of observer expectancy is a factor in this study.

A systematic replication of the BASP program has been initiated by personnel from the University of North Texas' Department of Behavior Analysis. Utilizing the basic BASP curriculum, parent training workshops and 15-hr courses have been presented to an array of audiences in the North Texas area, including local and regional foster parent associations, Child Protective Services (CPS) agencies, and the Counseling Center of Denton. A recent focus of the Behavior Management And Parenting Services (BMAPS) program has been the provision of parent training services to a population of (primarily, but not exclusively) biological parents. Most of the participants in this program are referred by CPS and have been identified as at risk for child maltreatment or have already had children removed from the home on the basis of maltreatment. To date, no formal assessment of the effectiveness of this adaptation of the BASP curriculum has been conducted.

The current study was designed to extend previous research on the effectiveness of a Positive Parenting curriculum. Specifically, a version of the BASP curriculum, adapted as appropriate for biological parents, was presented to 10 participants. The effects of the curriculum were evaluated individually and as a group, across role-play measures and the results of multiple-choice quizzes. A multiple probe design was used in order to permit ongoing evaluation of the components of the class on specific participant skills. Role-play procedures, definitions of target behaviors, and scoring procedures were refined in order to permit clearer depictions of a participant's performance during role-play.



## CHAPTER 2

### METHOD

#### Participants

The participants were adult men and women from the local community who were referred for BMAPS parent training classes through the Regional Office of Texas Child Protective Services or the Counseling Center of Denton. To be included in the study, the participants must have met three criteria - 1) they must have been previously identified by Child Protective Services staff as at risk for maltreatment, 2) the series of classes in which the study was conducted was the participant's first time attending the BMAPS class, and 3) the participant agreed to allow their data to be used in this research by signing an informed consent form. Only participants who completed all of the class requirements were included in the evaluation. Ten parents (7 women and 3 men) from three series of classes met the above criteria and were included as participants in the study. The ages of the participants ranged from 22 years old to 40 years old with a mean age of 29. Neither the investigator nor BMAPS personnel were aware of the specific reasons for referrals, except when revealed by parents themselves during the course of the class.

#### Setting and Materials

All classes were conducted in a classroom located at the University of North Texas Chemistry Building. The classroom contained desks, a podium, and audio-visual equipment (e.g., a computer, projector, etc.). Each class series met once per week; series 1 met on Monday nights from 6:30 P.M. to 9:30 P.M., series 2 met on Thursday nights from 6:30 P.M. to 9:30 P.M., and series 3 met on Saturday mornings from 9:00

A.M. to 12:00 P.M. The participants were provided with a Participant's Guide at the beginning of each class that included material that was to be covered in that session, written exercises, instructions for group activities, the homework assignment for the next session, and a session evaluation form consisting of open-ended questions about the participant's satisfaction with the class.

The pre- and post-training role-play assessments were conducted in two locations within Chilton Hall, located on the campus of the University of North Texas. Room 393 was approximately 3.05 m by 4.27 m and contained two large tables, three desktop computers, and four chairs. Room 122F was approximately 3.05 m by 3.35 m and contained one small table, one desktop computer and small couch. Both rooms contained a video camera and were arranged to simulate a living room setting. Materials available during role-plays included a toy car, stuffed bears, and a basket to simulate a bassinet.

Classroom training was conducted by graduate students from the Department of Behavior Analysis at the University of North Texas. A different Lead Trainer and Co-Trainer conducted each series of classes, and at least one graduate student observed each series for training purposes. All trainers were currently enrolled in or had completed a structured and intensive 18-week training experience designed to train them to present the BMAPS curriculum. Each Lead Trainer had observed one series of classes. Then, the Lead Trainer assisted a previously-qualified trainer in conducting a second series of classes, and completed the experience by functioning as Lead Trainer for a series of classes with the assistance of a previously-qualified Co-Trainer (thus, Co-Trainers for first-time Lead Trainers had previously been qualified at the Lead Trainer

level). Trainees received continuous feedback on their lecture performances, interactions with participants, role-play performances, and overall classroom management, and attended weekly 2-hr staff meetings to discuss topics related to administration of the project.

## Procedure

### *BMAPS Class*

Six general intervention techniques, or “tools,” were taught to the parents over a five-week series of 3-hr classes. Each class meeting included a lecture which was accompanied by a PowerPoint ® presentation, structured group activities, a multiple-choice quiz, and role-plays that provided opportunities to practice the skills taught in that meeting.

During the first session the “Stay Close” tool was presented. The second tool, “Use Reinforcement,” was introduced during the second session. The third session covered two tools, “Pivot” and “Redirect / Use Reinforcement.” In the fourth session the “Set Expectations” and “Use a Contract” tools were taught. During the fifth session all six tools were reviewed. A brief description of the procedures associated with each tool is provided in Table 1 (Adapted from Van Camp, 2004).

### *Multiple Choice Quiz*

A multiple choice quiz was presented using a multiple probe design in order to permit a systematic analysis of the effects of program components as they were introduced. The multiple choice quiz consisted of 36 questions. There were 6 questions pertaining to each skill taught in the class; 3 questions outlined a scenario depicting an interaction between a parent and child in which the learner was to select the answer

that best represented appropriate application of the skill (hereafter referred to as scenario based questions), and 3 questions (hereafter referred to as conceptually based questions) were derived directly from concepts covered in the Participant's Guide and lectures (e.g. the definition of behavior). The quiz, consisting of the same 36 questions, was presented at each meeting; however, questions were quasi-randomly reordered for each presentation. That is, six blocks of questions, each containing one question from each tool, and the questions within those blocks, were randomly reordered for each administration.

The multiple choice quiz was administered to each participant in the class at the beginning of each session. The final (6<sup>th</sup>) quiz was administered in the BMAPS office during a follow-up session. The participants were instructed to answer all 36 questions and that there was only one correct answer for each question, however, for each question the answer option "I don't know" was available. The participants were instructed to raise their hand when they had completed the quiz. There was no time limit for the quiz, although time to complete the quiz was recorded for each participant. The Lead Trainer collected the quizzes as the participants completed them. At no point in the study did the participants receive feedback based on their responses to the written quiz.

Answers on the written quiz were scored as correct if the letter corresponding to, or the entire correct answer was circled. Answers were marked incorrect if the letter corresponding to an incorrect answer was circled or if more than one answer was circled. If the grader was unable to identify one circled letter, the question was marked as incorrect. Any additional writing or marks on the written quizzes were ignored.

### *Role-Play Assessments*

A role-play assessment was conducted prior to and following the series of classes. The role-play assessment consisted of five live-action scenarios corresponding to the Stay Close, Use Reinforcement, Ignore Junk/Pivot, Redirect/Reinforce, and Set Expectation tools. A script was created for each scenario and included a description of the scene to be acted out by the participant and graduate students in the BMAPS project. The BMAPS staff assumed the roles of children in the scenario and the participant was instructed to “show us what you would do in this situation.” The scripts consisted of prompts for BMAPS staff to engage in specific child behaviors designed to provide opportunities for participants to demonstrate the skills taught during the class. All role-plays were videotaped. No role-plays were conducted with the Use a Contract because it was impractical to attempt to evaluate the skills corresponding to this tool within the role-play format. The participants did not receive any feedback on their performance following the role-play assessments.

Role-play videos were scored by research assistants who were naïve to the conditions from which videos were taken. A unique data collection system was developed for each of the scripts. For each scripted opportunity to engage in a skill, the research assistant marked either YES, NO, or N/A based on the participant’s response. The research assistant marked YES if the parent demonstrated the step of the tool when presented with the scripted opportunity, NO if the parent did not demonstrate the step of the tool when presented with the opportunity and N/A if the opportunity was not presented. The percentage of opportunities with correct responses was calculated by

dividing the number of correct responses by the total number of opportunities presented during the role-play and multiplying the result by 100.

### *Interobserver Agreement*

Interobserver agreement (IOA) was calculated for written assessments and role-plays. For the multiple choice quizzes, IOA was conducted by having a second research assistant independently score 20% of the quizzes and was calculated by dividing the number of agreements by the number of agreements plus the number of disagreements and multiplying the result by 100. IOA on the written quiz was 100%. A second naïve research assistant independently scored 24% of the role-play scenarios. Agreement was scored if each scorer recorded the same mark (YES, NO, N/A) corresponding to each opportunity on the scoring sheet. IOA on the role-plays was 90.3%.

## CHAPTER 3

### RESULTS

Figure 1 represents the number of correct responses on each written quiz, averaged across all of the participants. Prior to instruction (i.e., at the beginning of session 1), the average number of correct responses on the written quiz administered was 13.9 (i.e., 38.6% of 36 questions). The average number of correct responses increased across consecutive sessions except for a small decrease at session 5. The average scores were 20.4 for session two, 21.6 for session three, 23.2 for session four, 22.9 for session five, and 24.6 for the follow-up session.

Figure 2 displays the pre-instruction and post-instruction along with the pre-review and post review scores on the written quiz for each tool. The error bars represent plus and minus one standard deviation of the mean. Pre-instruction scores represent the number of correct responses on the questions pertaining to each tool on the written quiz administered prior to the first session of instruction (i.e., responding prior to training with any tool). Post-instruction scores represent the number of correct responses on each tool on the written quiz administered after training with that tool had been conducted (the beginning of the next class session). Pre- and post-review scores represent the number of correct responses on the written quiz administered at the beginning of session 5 and the follow-up session, respectively, for all tools. For example, pre-instruction scores for the Pivot tool indicate the number of correct responses corresponding to the Pivot tool on the first quiz (prior to any instruction). Because the Pivot tool was taught in the third class session, the post-instruction score represents the number of correct responses corresponding to the Pivot tool on the

written quiz administered at the beginning of session four. The pre-review score indicates the number of correct responses on session 5 and post-review score represents the number correct on the follow-up session.

The top graph in Figure 2 shows the average pre- and post-instruction scores as well as the pre- and post-review scores (of 6 possible correct responses) across tools for all 10 participants. The average pre-instruction score across all tools was 2.58 correct responses and the average post-instruction score across all tools was 4.12. The most dramatic increase in the number of correct responses from pre- to post-instruction was observed in questions corresponding to the Pivot tool, with an average pre-instruction score of 0.33 and average post-instruction score of 4.70. The average pre-review score across all tools was 4.01, which represents a slight decrease from the average post-instruction score. There was an increase to 4.45 in the average post-review score. The lower graphs show the individual pre- and post-instruction scores on the written quizzes for each participant. Each participant demonstrated an overall increase in number of correct answers. Participants 1, 4, and 7 all showed a pre-instruction score of zero for at least one of the tools and an increase in the post-instruction scores was observed for each of those tools. Individual records revealed some decreases in pre- and post-instruction scores. Participant 1 showed a slight decrease in the post-instruction score for the Redirect/Reinforce tool, but showed an increase from pre-instruction to the post-review score. Participant 10 showed decreases in post-instruction scores for the Stay Close and Use Reinforcement tools, but an increase from pre-instruction to post-review scores on the Stay Close tool and no change from pre-instruction to post-review on the Use Reinforcement tool. Participant 4



showed a decrease in the post-instruction score for the Set Expectations tool, but an increase from pre-review to post-review scores on this tool. Participant 6 showed no change in pre- and post-instruction scores for the Use Reinforcement, Redirect/Reinforce, and Set Expectations tools, but showed an increase in scores for Redirect/Reinforce and Set Expectations tools following the review sessions. The scores for Participant 8 showed a consistent pattern across tools, demonstrating an increase from pre- to post-instruction scores followed by a decrease from post-instruction to pre-review scores and, finally, an increase from pre-review to post review scores. Participant 9 demonstrated an increase in post-instruction scores across all tools and the scores remained constant, with the exception of the Stay Close tool, in which an additional increase from post-instruction to pre-review was demonstrated.

Figures 3 through 6 illustrate the number of correct responses for each tool as that component was introduced for each participant. The phase change lines indicate the introduction of the curriculum material pertaining to each tool. The dashed phase change line indicates the review session in which all curriculum components were covered. These figures reveal that, in general, increases in the number of correct responses were observed across participants. However, several idiosyncratic patterns of responding were observed both within- and across-participants. The outcomes for Participant 1 illustrate these patterns. Although this participant's results showed an overall pattern of acquisition across most tools (increases were seen from pre-instruction scores to follow-up scores), post-instruction scores for the Stay Close tool did not show increases over pre-instruction scores (post-instruction scores on questions corresponding to this tool were equal to or lower than pre-instruction scores). In

addition, patterns of correct responses varied across and within curriculum components, showing acquisition following instruction for some components (e.g., Use Reinforcement), no discernable change for some components (e.g., State Expectations), and apparent acquisition prior to instruction for some components (e.g., Pivot). Interestingly, scores for the Redirect/Reinforce tool initially decreased following instruction, but then increased above pre-instruction scores in the follow-up session. Similar idiosyncratic response patterns were observed across the remaining participants, with no participant showing a pattern of sequential acquisition of component skills corresponding to instruction on that skill. That is, each participant's outcomes showed inconsistent patterns of acquisition, or, in rare cases, decreases in correct scores, across curriculum components.

Some interesting response patterns were observed within curriculum components. For example, a general tendency, across participants, of acquisition prior to instruction on the Pivot tool was observed for all participants except Participant 8, whose baseline scores on this tool were stable at 2 correct responses. Similar but less-pronounced patterns were seen for the Use Contracts (7 of 10 ascending baselines).

Another interesting and somewhat counterintuitive finding can be seen in a comparison of fourth and fifth test scores for the Set Expectations and Use Contracts tools. The fourth test occurred just prior to instruction on these tools; however, inspection of the results across participants reveals that few participants produced more correct responses on the fifth test (immediately following instruction) than on the fourth test (immediately preceding instruction). For the Set Expectations tool, only Participants 5 and 9 showed immediate improvements, and Participants 4, 6, and 10 showed

decreases in correct responses on the fifth test. For the Use Contracts tool only Participants 4 and 10 showed immediate improvements, and Participants 1 and 3 showed decreases in correct responses on the fifth test. Despite these outcomes, summarized outcomes revealed general increases between pre- and post-instruction scores (see Figure 2) and only 4 cases were observed in which overall pre-instruction scores were equal to or higher than post-instruction scores (Set Expectations outcomes for Participant 4 and Use Contracts outcomes for Participants 5, 7, and 10). These results indicate either that acquisition occurred prior to formal instruction on these components (Set Expectations outcomes for Participants 2, 3, 6, 8, 9, and 10 and Use Contract outcomes for Participants 1, 2, 3, 4, 6, 8, and 9) or follow-up scores increased over immediate post-instruction scores (Set Expectations outcomes for all participants except Participants 7 and 9 and Use Contract outcomes for Participants 2, 3, and 7).

The top graph in Figure 7 displays the average pre- and post- role-play scores in percent correct for all of the participants with error bars representing plus and minus one standard deviation of the mean. The role-play scenarios were the same for each tool in both the pre and post assessments, although it should be noted that the role-play scripts permitted some variation based on a participant's response. The average percentage of correct responses to opportunities across tools and participants increased from a pre-instruction mean of 38.55% to a post-instruction mean of 71.87%. The most pronounced increase in performance was observed in the role-plays corresponding to the Pivot tool, with an average of 23.0% correct on pre-instruction scores assessment and an average of 81.5% correct following instruction.

The lower graphs in Figure 7 display pre-instruction and post-instruction percent correct scores on the role-play assessments for each participant. Each participant showed an overall increase in total role-play scores. Participant 3 showed the greatest improvement with an overall increase of 54.6%. Pre-instruction assessment scores of 0% were seen for the Pivot, Redirect/Reinforce, and Set Expectations tools. Participant 1 increased their score from 0% to 80% in the Set Expectations tool and Participants 3, 4, 8 and 10 showed a pre- assessment score of 0% for the Pivot tool. During the post assessment for the Pivot tool, Participants 3 and 10 scored 100% on post-instruction assessments with the Pivot tool and scores for Participants 4 and 8 improved to 50%. Participants 2, 6, and 8 showed pre-instruction assessment scores of 0% for the Redirect/Reinforce tool. Increases to 100% for Participants 6 and 8 and 40% for Participant 2 were observed in post-instruction tests. The individual records show post-instruction decreases in some participants' performance on some tools. Participants 1, 6, and 7 showed decreases in post-instruction assessment scores for the Stay Close tool. Participant 1 showed a decrease in scores from pre-instruction to post-instruction tests with the Pivot tool and Participant 4's post-instruction score was lower than the pre-instruction score for the Use Reinforcement tool. For the Use Reinforcement tool, Participants 5, 6, and 9 demonstrated no change in performance from pre-instruction to post-instruction assessments.

A paired t-test revealed statistically significant differences between pre-instruction and post-instruction role-play scores for some tools. As seen in Table 2, a statistically significant difference at the .001 level was obtained for composite scores across tools. No statistically significant differences were obtained for the Stay Close or

Use Reinforcement tools; however, a statistically significant difference was obtained at the .01 level for the Pivot and Redirect/Reinforce tools and at the .001 level for the Set Expectations tool.

## CHAPTER 4

### DISCUSSION

The present study was designed to evaluate the effects of a behavioral parenting curriculum package (i.e., the BMAPS curriculum, a 15-hr course in positive methods of child management adapted from the BASP curriculum used to train foster parents throughout Florida) on participants' scores on written quizzes and role-play assessments. The participants in this study were parents who had been identified by a referring agency as offenders or at-risk for maltreatment of their children. The identification of effective prevention and treatment methods for this population has widespread implications within the child welfare system. Parental reunification and maintenance of the biological family unit is the preferred permanency goal for the children served by child welfare agencies. According to P.L. 96-272, agencies must make "reasonable efforts" to prevent or avoid removing children from their homes and, if removal is necessary, the agency must make continuing efforts to return the child safely to their home (The Adoption Assistance and Child Welfare, P.L. 96-272, 1980). Although a wide range of family-related (e.g., gainful employment of caregivers, extended family support) and environmental variables (e.g., a hazard-free home environment) must be addressed in order to provide a safe environment for raising children, the establishment of effective and appropriate parenting skills are widely viewed as central and fundamental in the proper care of children. Thus, the current study contributes to the knowledge base on prevention and treatment of child maltreatment by demonstrating improvements in targeted parenting skills with a group

of parents identified as offenders or members of a group identified as at-risk for maltreatment.

The results of the study demonstrated that the curriculum moderately improved participants' ability to recognize correct answers among arrays of incorrect answers in a multiple choice format, and also improved participants' ability to demonstrate the behavioral skills taught in the class when those skills were assessed within a role-play context.

The most marked increase in performance was in both the questions on the written quiz pertaining to the Pivot tool and the role-play performances in the scenarios corresponding to the Pivot tool. The Pivot tool has its foundation in the behavior analytic technique of differential reinforcement. More specifically, this tool prescribes minimizing attention for the behavior of the child that does not pose a danger to self, others, or property, providing attention contingent upon appropriate behavior, and diverting attention to other individuals or events present in the environment contingent on inappropriate behavior. The premise of the tool is that ignoring behavior that is not harmful or destructive instead of reacting to the behavior immediately will extinguish the behavior (if the behavior is maintained by attention) or, at least, avoid presenting potentially reinforcing consequences. Reacting to children's problem behavior in the moment is a more typical and socially accepted response and, therefore, it is not surprising that low pre-training scores in tests and role-play scenarios corresponding to this tool were observed (i.e., pre-training scores were generally lower for this tool [mean for written tests = 21.6% and mean for role-play = 23.0%] than for other tools in the curriculum). Consider that parents are expected to maintain control over their children in

public places and both informal (disapproving glances or comments) and formal (ejection from public places) disapproval may accompany what is viewed as a failure to appropriately manage tantrums or other disruptive child behavior. The difference between Pivot procedures and social norms may contribute to the salience of the tool and thus may, at least in part, account for low pre-training scores as well as the large improvements.

All participants in the current study showed patterns indicating acquisition of some skills prior to specific instruction on those skills. However, inspection of results within and across individual participants revealed few patterns indicating that material corresponding to any particular skill was systematically foreshadowed in the curriculum. However, the training context permitted a great deal of variation in the presentation of content material, which may have occurred as a function of questions asked by participants or variability in instructors' presentation content and style. In fact, several participants in the current study asked questions to which answers involved skills and content material that would be covered in greater detail in subsequent classes. For example, when taught to ignore junk behavior, parents often asked how they should respond to junk behavior that persists. Trainers may respond by briefly describing how parents can set expectations and use contracts to manage such behavior, potentially resulting in an increase in test scores corresponding to these two tools prior to their formal instruction. In addition, some of the components of the task analyses corresponding to each tool are similar, if not identical to components of other tools, which could also account for pre-instruction improvements in tools that were not yet covered. However, attempts to control for overlapping content matter in test items and



the absence of clear patterns of acquisition across participants seem inconsistent with this account.

Finally, the overarching focus on positive methods to change behavior in the class could have affected participants' choices on written quizzes, such that participants may have guessed correct answers by selecting the most "positive" choices, without having previous contact with the material corresponding specifically with those questions. However, this was taken into account during the development of quiz questions and an attempt was made to include equally "positive" but incorrect alternate choices.

The current study, as well as several others reported in the parent-training literature (e.g., Gershalter-Molko et al. 2003; Lutzker et al., 1998; Van Camp, 2004; Van Camp et al., in press) utilized data collected from role-play scenarios as one of the dependent measures. A measurement system was created in order to determine if parents appropriately demonstrated the skills outlined in the task analyses during scripted role-play scenarios. Although the pre-intervention and post-intervention role-play scenarios for each tool were identical, the scripts allowed for variability in opportunities to demonstrate particular skills depending (at least in part) on the responses of the participant. In addition, there was a great deal of variability in the number of component steps associated with each tool. Therefore, participants' performances were evaluated by calculating percentages of opportunities with correct responses for each tool, permitting easier and more useful comparisons of performances within (pre-treatment and post-treatment) and across tools.

Evaluations of systems for scoring role-play performances have often yielded less-than-satisfactory outcomes. For example, Van Camp (2004) reported IOA for role-plays with participants from two of the three populations included in the large scale evaluation of the BASP program. The average IOA coefficients for these groups were 79.5% and 73.7%, suggesting the need for further refinement and evaluation of measurement procedures. Several modifications to the system for measuring role-play performances were implemented in the current study. First, more structured role-play scenarios were arranged in order to assure that opportunities to demonstrate targeted skills were systematically presented. Second, role-play contingencies were arranged so that specific child responses to variations in parent behaviors were prescribed, permitting easier scoring and greater consistency between pre-instruction and post-instruction role-plays. Third, operational definitions of targeted parent behaviors as well as the child behaviors and environmental events and conditions that constituted “opportunities” to demonstrate skills were refined. Fourth, the role-play scenarios were scored from videotapes, rather than “in-vivo,” which permitted observers to replay difficult segments and rescore as necessary. Perhaps as a result of these refinements, IOA coefficients in the current study (average IOA across skills = 90.3%) were generally higher than those reported for similar role-play scenarios (e.g., Van Camp, 2004). Future research should continue to refine and evaluate procedures for measuring participants’ performances in role-play situations as well as in actual interactions with their children.

Florida’s BASP program has demonstrated that the Tools for Positive Parenting curriculum from which the BMAPS curriculum was adapted can produce large-scale

improvements in parenting outcomes. For example, Van Camp (2004) demonstrated improvements from pre-intervention to post-intervention role-play scores for foster parent populations encompassing entire state districts. Furthermore, BASP has also demonstrated that their program has produced increases in the stability of foster home placements for the children they serve, showing a 149% increase (from 90 to 221 days) in child placement duration in foster homes following training (Van Camp et al., 2006). Placement stability is a primary goal of most child welfare agencies and is considered to be essential in establishing effective and rewarding relationships between foster parents and children.

The results of the current study showed that the BMAPS curriculum produced improvements in parenting skills across participants; however, the average post-instruction written quiz score of 68.3% and average post-instruction role-play score of 71.87% indicate that additional improvements are possible. No participant in the current study had custody of their child at the time of the study and none had contact with their children for more than one hour per week during supervised visits. Thus, participants had few or no opportunities to practice targeted skills outside of the class setting. Potential deficits in reading comprehension skills also may have limited some participants' ability to benefit from training or demonstrate the skills that had been obtained (the quizzes were presented in written format, a workbook with required reading and writing assignments was used, and lectures were accompanied by text on PowerPoint® slides).

Kirkpatrick (1977) has described four levels of analysis when evaluating training programs. The first of the four levels involves participant satisfaction with the training.

Although the current study collected weekly feedback from the participants, the population was required by law to attend the classes; thus, responses may not accurately depict their satisfaction with the training. The second level of analysis is a measure of the participants' learning of skills (Kirkpatrick, 1977). The current study contributed to the development of reliable measures at this level and also demonstrated improvements in skills across participants using these measures. Although the current outcomes are encouraging at this level of evaluation, future research should investigate variables that influence individual variability in responsiveness to parent training efforts. The last two levels of analysis of training programs described by Kirkpatrick (1977) evaluate the extent to which the outcomes of training alter behavior outside of the training environment and the extent to which those changes produce measurable benefits to the participants and the larger community. Thus, evaluating changes in parent-child interactions, child behavior, and finally effects on rates of reunification and recidivism are the necessary next steps in determining the overall effectiveness of the positive parenting curriculum. By using methods that permit evaluations of both overall (group) and individual improvements, future research may show even greater gains in appropriate parenting skills and, hopefully, reductions in instances of child maltreatment.

Table 1

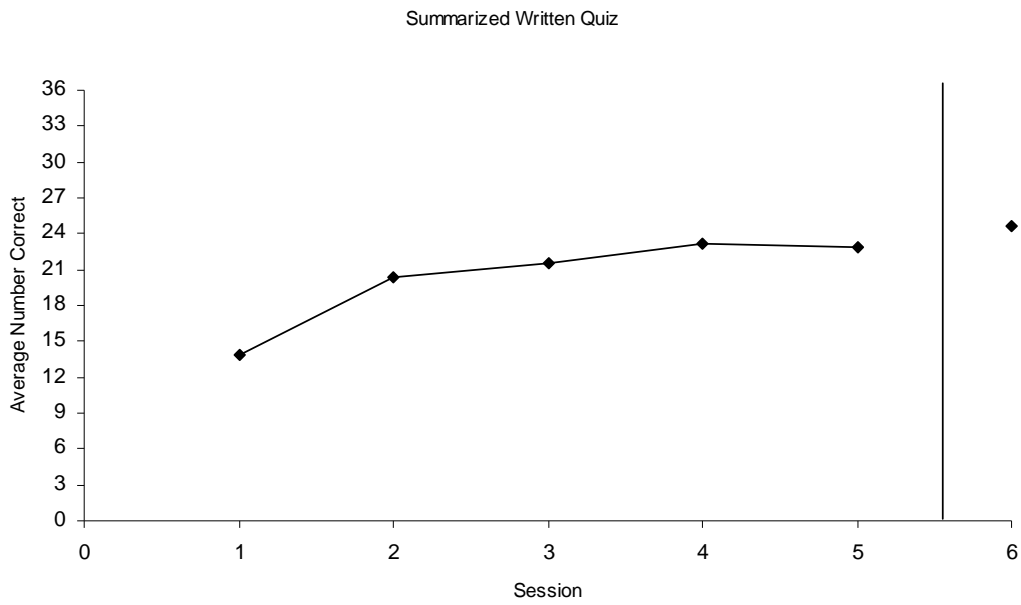
*Tool Descriptions*

Tool Name	Behavioral Technique(s)
Stay Close (SC)	Provide noncontingent attention; Establish the caregiver as a source of positive reinforcement
Use Reinforcement (UR)	Provide rewards for appropriate behavior, possibly reinforcement
Ignore Junk / Pivot (PI)	Differential reinforcement; minimize attention for children's minor problem behavior that does not pose a danger to self, others, or property; provide attention contingent on appropriate behavior, provide differential attention to other individuals present contingent on appropriate behavior
Redirect-Reinforce (RR)	Immediately stop dangerous behavior (blocking), redirect the child to an alternative appropriate active, provide rewards contingent on appropriate behavior; differential reinforcement
Set Expectation (SE)	Describe to the child the behavior expected, the consequences for meeting that expectation (delivery of rewards), and the consequences for not meeting that expectation (lack of rewards); reinforcement
Use a Contract (UC)	Written form of "Set Expectations", including short term and long term rewards; reinforcement; teaches on going data collection

Table 2

*Pre- and Post-instruction Role Play Scores*

Tool	t value (n = 10)	p
SC	1.25	NS
UR	2.24	NS
PI	4.36	<.01
RR	3.78	<.01
SE	5.43	<.001
Total	7.44	<.001



*Figure 1.* Average number of correct responses on the written quiz across sessions for all participants.

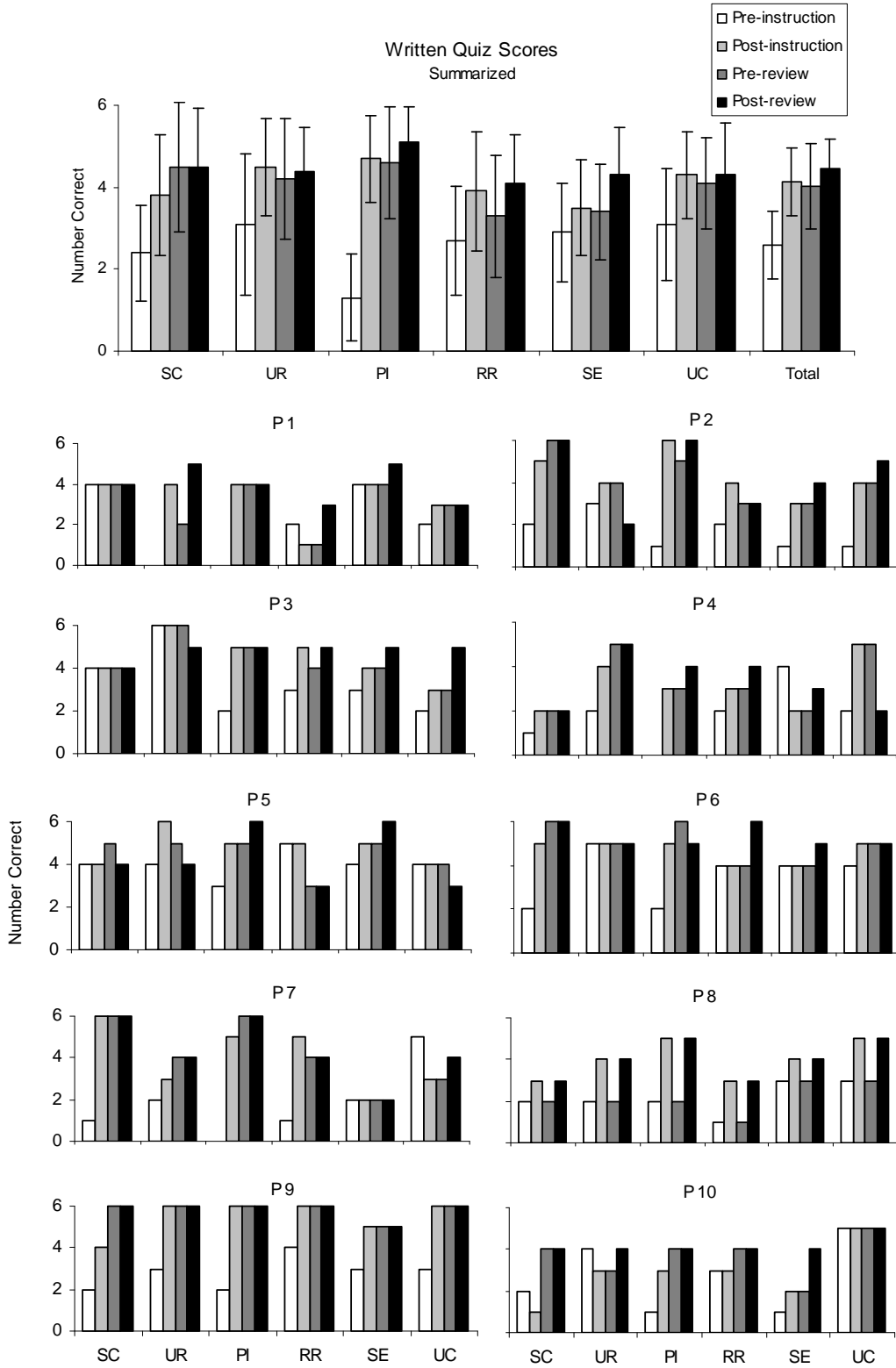


Figure 2. Pre- and post-instruction and review written quiz scores (bar represent standard deviation of the mean).



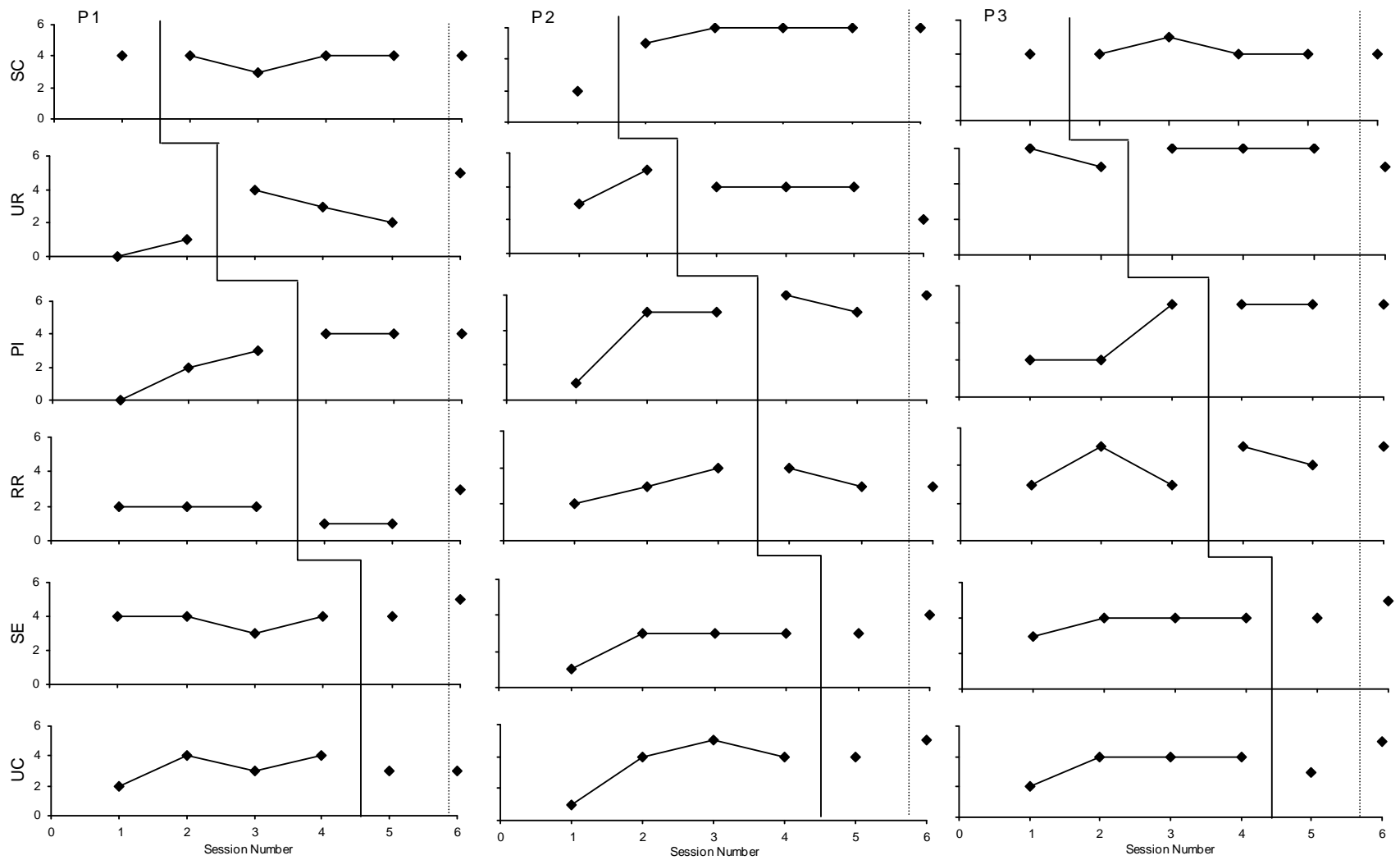


Figure 3. Written quiz scores across sessions for Participants 1, 2 and 3.

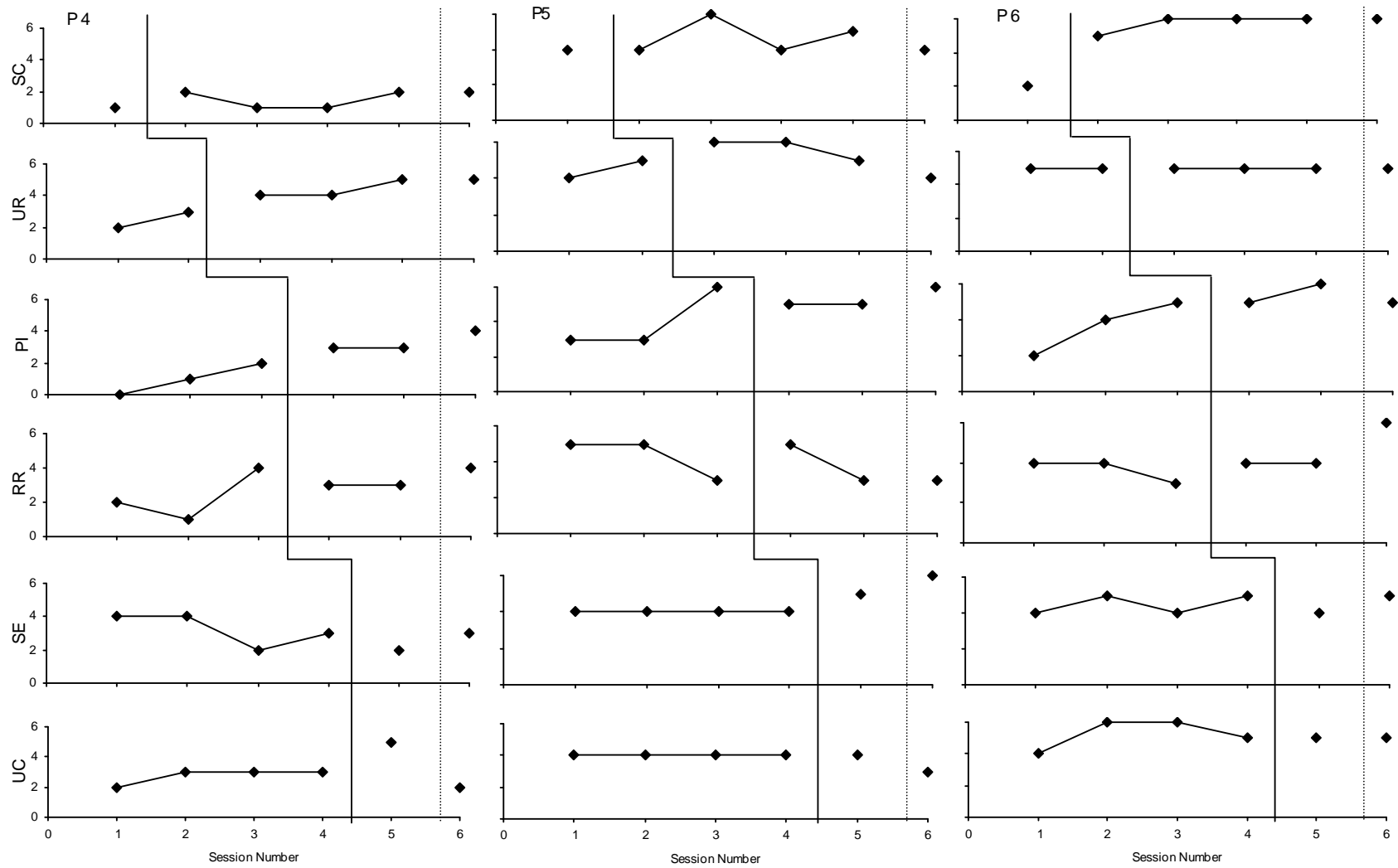


Figure 4. Written quiz scores across sessions for Participants 4, 5, and 6.

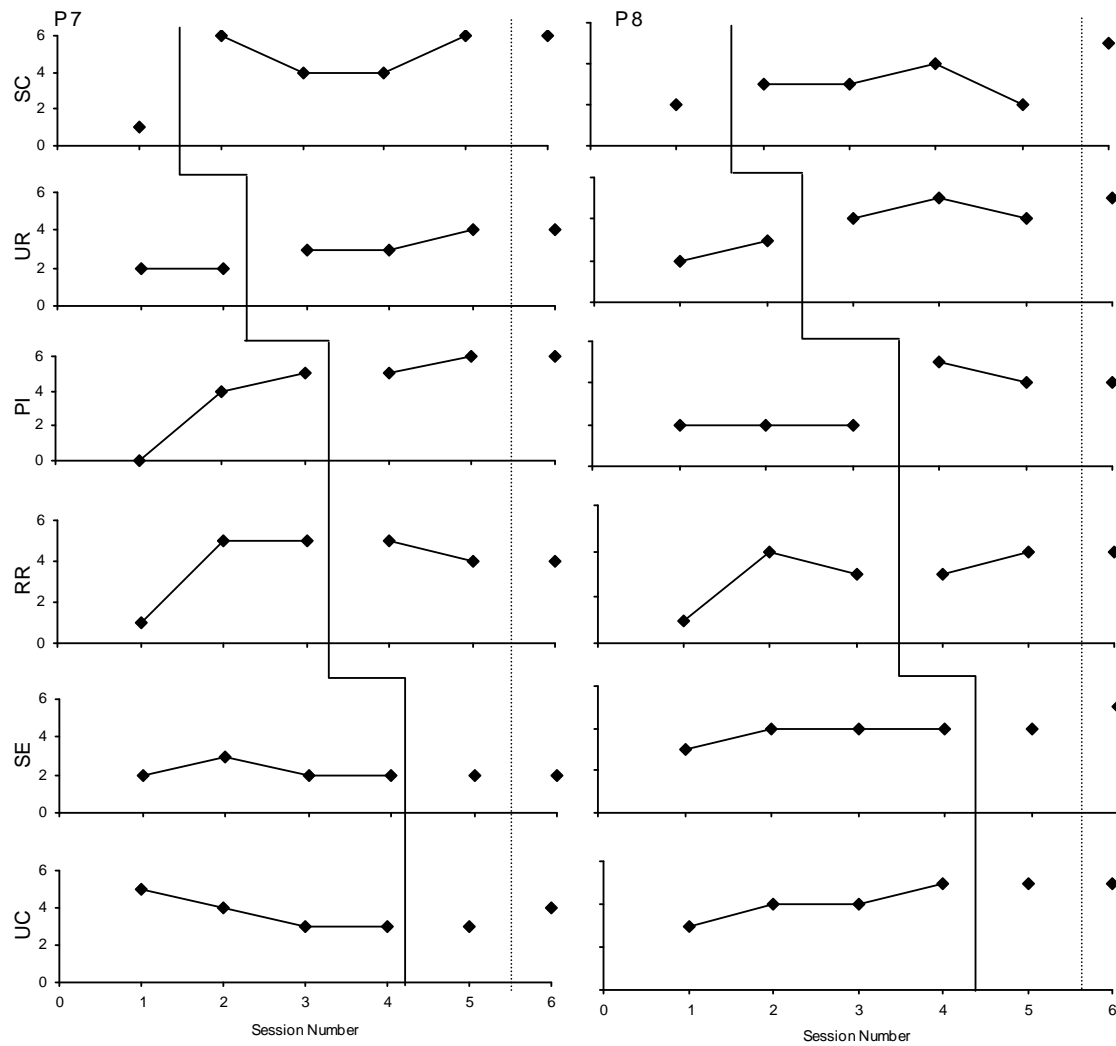


Figure 5. Written quiz scores across sessions for Participants 7 and 8.

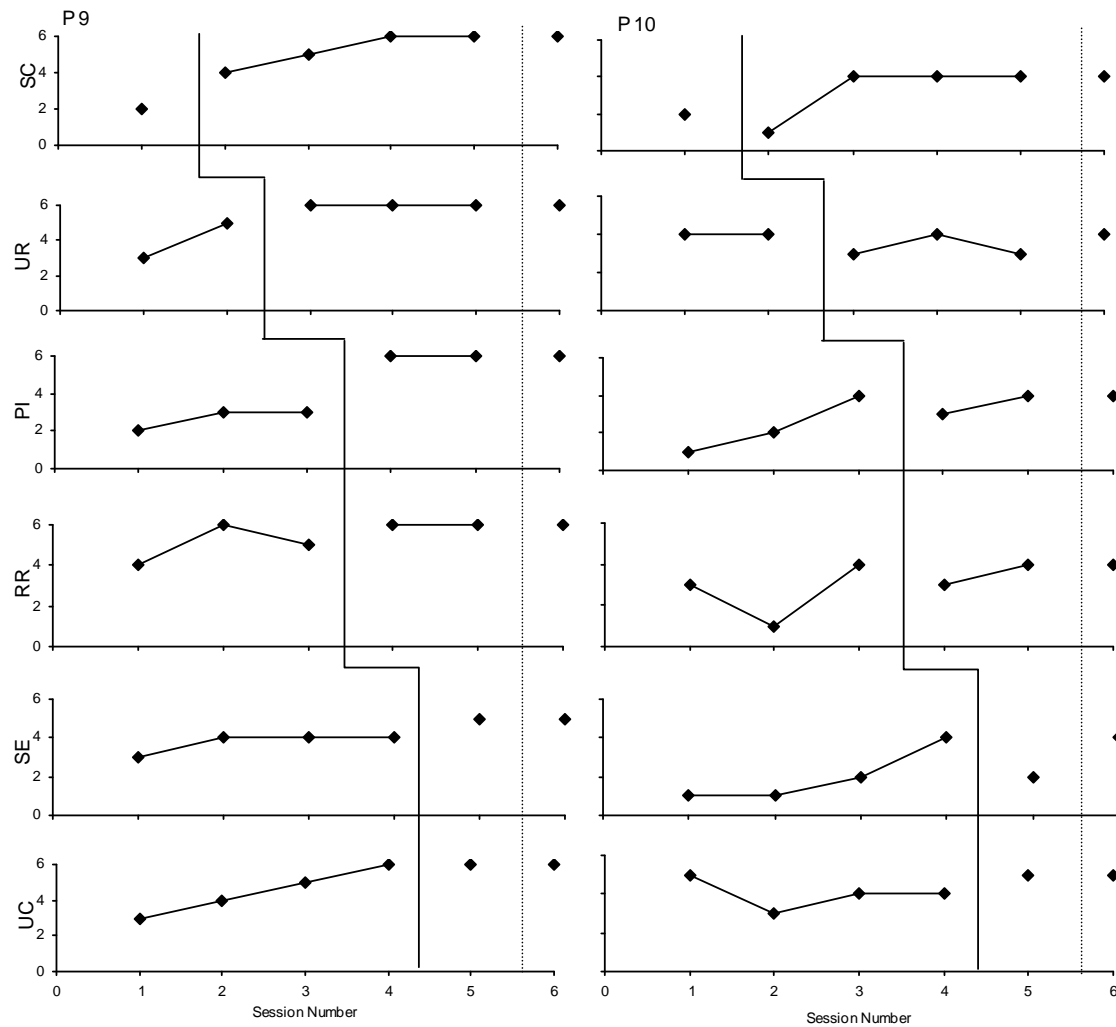


Figure 6. Written quiz scores across sessions for Participants 9 and 10.

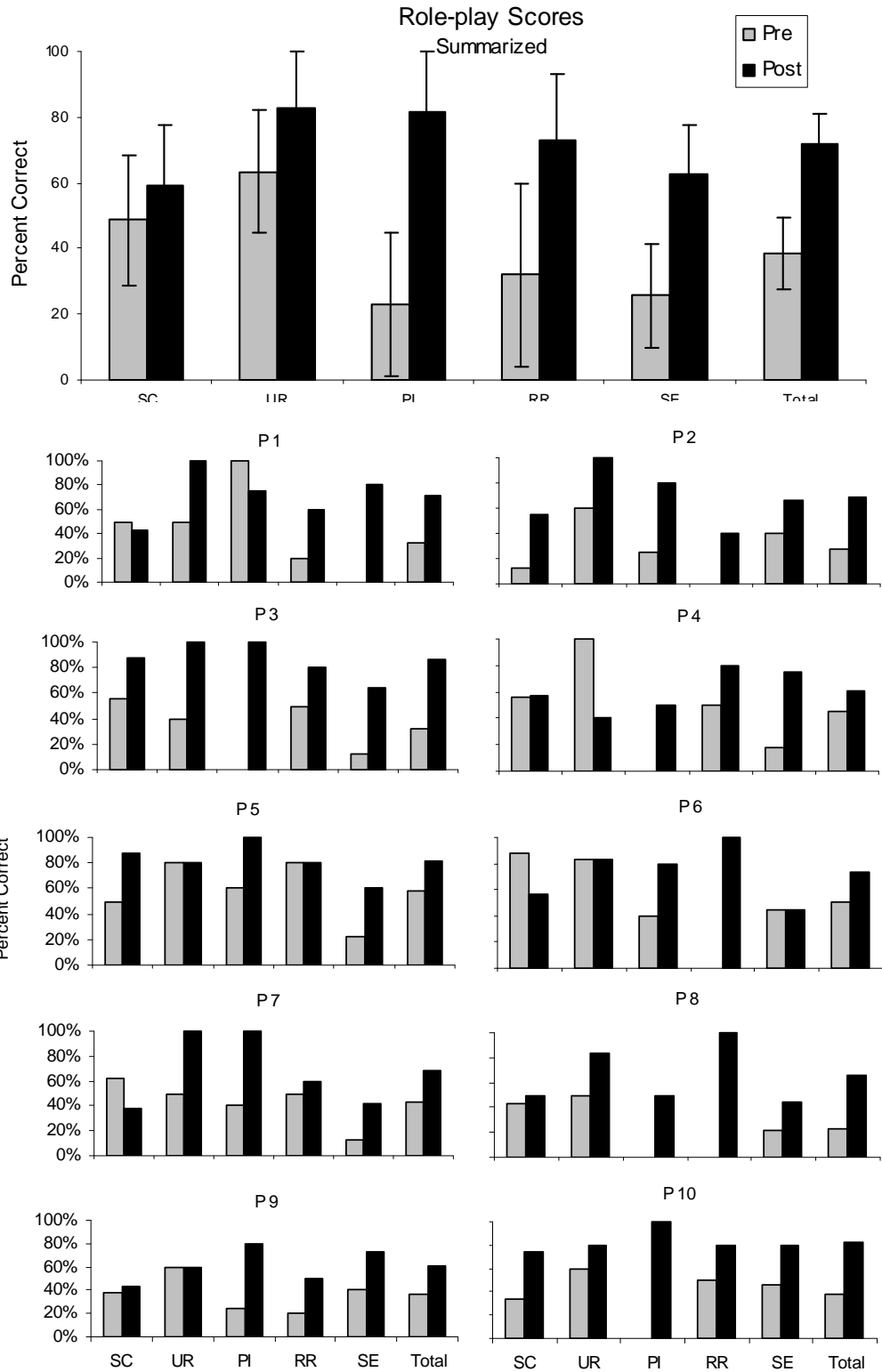


Figure 7. Pre- and post-instruction role-play scores (bar represent standard deviation of the mean).

APPENDIX  
ROLE-PLAY SCORE SHEET EXAMPLE

EXAMPLE ROLE PLAY SCORE SHEET  
Redirect/ Reinforce

1	<p>The participant moves within arms reach of the child before saying anything to the child</p> <ul style="list-style-type: none"> <li>▪ that relates to the behavior of throwing the hard toy into the bassinet</li> <li>▪ that indicates that the child should stop throwing the toy</li> </ul>	Yes	No	N/A	<p>Examples:</p> <ul style="list-style-type: none"> <li>▪ The participant moves toward the child and grabs the hard toy without saying anything</li> <li>▪ The participant moves toward the child and grabs the toy while saying calmly, “look at this neat toy.”</li> </ul> <p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ The participant says “No, stop” while moving toward the child</li> <li>▪ The participant does not move toward the child</li> </ul>
2	<p>The participant stops the child from throwing the toy into the bassinet.</p> <ul style="list-style-type: none"> <li>▪ If the child throws the toy into the bassinet a 2<sup>nd</sup> time, score this as no</li> </ul>	Yes	No	N/A	<p>Examples :</p> <ul style="list-style-type: none"> <li>▪ The participant moves toward the child and grabs the toy before the second throw</li> <li>▪ The participant says, “no stop!” but catches the toy before the toy enters the bassinet a second time</li> </ul> <p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ The parent takes the toy from the child, gives it back and the child throws the toy into the bassinet a second time</li> <li>▪ The parent moves close and catches the toy on the third throw</li> </ul>
3	<p>The participant states an appropriate alternative behavior for the child to engage in</p> <ul style="list-style-type: none"> <li>▪ This does not include an alternative that is not positive, such as time out or removal of all toy</li> <li>▪ This does not include a nonspecific alternative</li> </ul>	Yes	No	N/A	<p>Examples</p> <ul style="list-style-type: none"> <li>▪ Participant says “I’ll play catch with you”</li> <li>▪ Participant says “hey kiddo, I want you to play catch with mommy” and participant throws toy to child</li> <li>▪ Participant takes hard toy and gives child a soft toy. Participant says, “play with the baby like this.”</li> </ul>

EXAMPLE ROLE PLAY SCORE SHEET  
Redirect/ Reinforce

	<p>such as “go play,” or “do something else.”</p> <ul style="list-style-type: none"> <li>▪ This includes removal of the hard toy if alternative activity is specified</li> <li>▪ This does not include asking the child what activity they would like to do</li> </ul>				<p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ Participant says, “you can’t play with the baby like that,” and takes the hard toy</li> <li>▪ Participant says “you can’t play with the baby, go do something else.”</li> <li>▪ Participant says, “You hurt the baby, go to time out!”</li> </ul>
4	<p>The participant provides a positive consequence for engaging in an appropriate behavior</p> <ul style="list-style-type: none"> <li>▪ Mark yes if this occurs at any point during the role play</li> </ul>	Yes	No	N/A	<p>Examples</p> <ul style="list-style-type: none"> <li>▪ Participant states “playing catch with mommy is fun,” at any point during the role play</li> <li>▪ Participant says, “I love how you are playing by yourself with the cars” at any point during the role play</li> <li>▪ Participant plays with the child, smiles and says, “this is fun” at any point during the role play</li> </ul> <p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ Participant plays catch with the child and says “see, this won’t hurt the baby, the baby can’t catch.”</li> <li>▪ Participant says nothing</li> </ul>
5	<p>The participant provides a positive consequence for engaging in an appropriate behavior <u>within 3 seconds</u> of the child engaging in either</p> <ul style="list-style-type: none"> <li>▪ appropriate behavior specified by participant (#3)</li> <li>▪ other appropriate behavior (if none specified by participant) that is anything other than playing with the baby</li> </ul> <p>▪ If you marked NO for</p>	Yes	No	N/A	<p>Examples</p> <ul style="list-style-type: none"> <li>▪ Participant states “this is great, playing catch with mommy is fun” while child is throwing</li> <li>▪ Participant says, “I love how you are playing by yourself with the cars” within 3 sec of child beginning to play</li> <li>▪ Participant plays with the child, smiles and says, “this is fun” while playing</li> </ul> <p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ Participant says, “I like how you are playing” <u>after 3 sec has passed</u></li> <li>▪ Participant plays catch with the child and says “see, this won’t hurt the</li> </ul>



EXAMPLE ROLE PLAY SCORE SHEET  
Redirect/ Reinforce

	#4, then mark N/A				<p>baby, the baby can't catch."</p> <ul style="list-style-type: none"> <li>▪ Participant says nothing</li> <li>▪ Participant says, "thank you for not playing catch with the baby."</li> </ul>
6	<p>The participant does not verbally or physically attend to the behavior of the child when the child</p> <ul style="list-style-type: none"> <li>▪ Says "the baby is stupid"</li> <li>▪ Whines and tries to continue throwing the toy into the bassinet</li> </ul>	Yes	No	N/A	<p><i>Mark N/A if child does not make this or a similar statement</i></p> <p>Example</p> <ul style="list-style-type: none"> <li>▪ The participant continues to describe desired appropriate behavior, "look, I want you to play catch with mommy."</li> <li>▪ The participant continues playing catch with the child and says nothing.</li> </ul> <p>Non Examples</p> <ul style="list-style-type: none"> <li>▪ The participant says, "the baby is not stupid, he is just small and not big enough to play with you. You don't want to hurt him do you?"</li> <li>▪ The participant says, "stop whining, you will go into time out if you keep it up."</li> </ul>

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