Chen, Szu-Yu. The impact of kinder training on early elementary school children’s on-task behavior: A single case design. Doctor of Philosophy (Counseling), August 2015, 155 pp., 6 tables, 5 illustrations, references, 100 titles.

Teachers appear to feel challenged by children’s off-task behavior in the classroom. Children’s off-task behavior can result in reduced academic engagement, increased teaching stress, and strained teacher-child relationships. The purpose of this study was to investigate the impact of kinder training on young children’s on-task behavior in the classroom. This study utilized an experimental single-case methodology and a multiple baseline across subjects design. Three elementary school teachers conducted weekly individual play sessions with students they identified as frequently exhibiting off-task behavior. The three children ranged in age from five to six years: two males and one female, two Caucasian non-Hispanic and one biracial. Two trained observers repeatedly assessed the child participants’ on-task behavior using the Direct Observation Form throughout the baseline and intervention phases. The findings provide support for kinder training as an effective play-based professional development-training model that can improve children’s on-task behavior. Results demonstrated that all child participants showed improvement in on-task classroom behavior. Visual analysis revealed that all child participants demonstrated a positive change in on-task behavior during the intervention phase. All teacher participants reported observing improvement in the child participants’ on-task behavior and teacher-child relationships. Teachers’ post-intervention reports supported the notion of reciprocal interactions among teacher-child relationships, understanding of children’s lifestyle and goals of misbehavior, and children’s on-task behavior.
ACKNOWLEDGEMENTS

“We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time.” - T. S. Eliot

The journey of being an international student in this doctoral program, dissertation process, and life in general have been filled with exploration, challenges, growth, tears, and joy. I could not have made it without the support, encouragement, and trust of my family, professors, cohort, and friends.

To my amazing major professor, Natalya, thank you for challenging me for self-growth, reminding me to believing in myself, and supporting me in many ways throughout the program. To Dee, thank you for serving as a mentor, encouraging me to trust the process, and showing me that it is okay to be vulnerable. To Leslie, thank you for providing me with care, warmth, and encouragement throughout my doctoral journey. To teachers and children in this study, thank you for participating in my study and providing me the opportunity to explore the value of teacher-child relationships and the power of play. To my research assistants, thank you for dedicating your effort and time in my study.

To my dad, mom, and sister, I love you. Thank you for unconditionally supporting me to pursue my dream in studying abroad. To my cohort, you are awesome. Thank you for being part of my life and valuing my culture. To many friends, thank you for cheering for me when I am stressed and discouraged. To Machi, my very special one, thank you for being my best friend and my family. Your company is always a comfort for me.
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Challenging classroom behavior has become recognized as an impediment to young children’s learning, social-emotional development, and a predictor of academic achievement (Powell, Dunlap, & Fox, 2006). Many elementary school teachers have reported that managing children’s classroom behaviors and engaging children in the learning process are priorities for teachers and noted cooperation and attentional self-regulation as key to children’s successful participation in group learning situations (Lane, Givner, & Pierson, 2004; Myers & Pianta, 2008; Powell et al., 2006; Zhang & Burry-Stock, 2003). Teachers especially seem to value children’s task-oriented skills, such as on-task behavior, and consider children behaving on-task as contributing to children’s academic readiness and school success (Rimm-Kaufman, Pianta, & Cox, 2000). Given that off-task behavior has been linked to reduced academic engagement (Sabourin, Rowe, Mott, & Lester, 2011), researchers have increased concerns about off-task behavior of elementary school children and indicated the need to explore the factors contributing to off-task behavior (Godwin, Almeda, Petroccia, Baker, & Fisher, 2013; Sabourin, et al., 2011).

Children’s learning behavior and academic engagement in the classroom can significantly depend on their relationship with the teacher (Abidin, Greene, & Konold, 2004; Pianta, 1999). The research has shown that the teacher-child relationship has long-lasting effects on children’s growth and learning in schools (Rimm-Kaufman, 2011). Specifically, researchers found an association between children’s positive relationships with teachers and on-task behavior (Pianta, La Paro, Payne, Cox, & Bradley, 2002). For
many children, the motivation to learn and put effort into learning tasks is related to the quality of the teacher-child relationship (Abidin et al., 2004). Research findings indicate that teachers who provide children with emotional support and are responsive to children’s emotional needs tend to show a higher level of awareness of children’s academic needs as well as concern for children’s interests, strengths, and views. In contrast, children who experience negative relationships with teachers are at greater risk for developing behavioral problems and refusing to engage in learning (Hamre & Pianta, 2005; Howes et al., 2008; Ladd & Burgess, 2001; Myers & Pianta, 2008; Patrick, Ryan, & Kaplan, 2007; Pianta et al., 2002). As a result, it is vital that teachers foster healthy relationships with children to decrease children’s risk factors and promote their academic engagement.

Researchers indicated that most teachers lack necessary skills for effectively responding to children’s social-emotional needs when those children exhibit challenging behavior in the classroom (Helker & Ray, 2009). Additionally, children’s emotional difficulties and behavioral problems may strongly impact teachers’ levels of stress and inhibit the quality of the resulting teacher-child relationships (Ray, 2007; White, Draper, Flynt, & Jones, 2000). Yost and Mosca (2002) also noted that teachers who have a higher level of teaching stress and strained teacher-child relationships tend to respond to children in ways that perpetuate rather than prevent children’s problematic behaviors. Both teachers and children may therefore experience the school environment negatively because of the continuity of a negative cycle of interaction (Helker & Ray, 2009; Myers & Pianta, 2008). Hence, mental health professionals have noted the importance of implementing professional development training programs focusing on enhancing
teacher-child relationships, understanding children’s experience and needs, and responding to students’ challenging classroom behaviors (Lindo et al., 2014). Specifically, it is important to provide teachers with training programs from developmentally appropriate approaches, such as play-based teacher interventions, to facilitate improvements in teacher-child relationships and foster children’s learning and growth (Lindo et al., 2014).

Kinder training is a play-based professional development training model developed by White, Flynt, and Draper (1997). It is based on filial therapy (Guerney, 1964) and the theoretical constructs of individual psychology. To date, kinder training is the only professional development training model that systematically addresses teacher-child relationships, children’s social-emotional and academic development, children’s lifestyle, as well as teachers’ classroom management skills (White et al., 2000). The goals of the kinder training model are for counselors to involve teachers directly in the intervention by training teachers to become play therapy agents as they improve their relationships with children (White et al., 2000). Kinder training is designed to enhance teachers’ ability to connect with children, help children make better adjustments to their classrooms, and ultimately improve children’s academic and social skills as well as their relationships with teachers in the school environment (White et al., 2000). Researchers have found that kinder training improves children’s adaptive behavior, school adjustment, and academic performance as well as strengthens teacher’s classroom management skills (Draper, Siegel, White, Solis, & Misha, 2009; Draper, White, O’Shaughnessy, Flynt, & Jones, 2001; Edwards et al., 2009; White et al., 1999, 2000). However, a review of the literature revealed no research studies
examining the effectiveness of kinder training on early elementary school children’s on-task behavior in the classroom. Given that preliminary evidence suggested that teachers and students seem to benefit from kinder training, kinder training requires more empirical support to establish its efficacy, especially regarding its potential impact on children’s on-task behavior in the classroom.

**Purpose of the Study**

The purpose of the study was to investigate the impact of kinder training on children’s on-task behavior. Specifically I utilized an experimental single-case experimental methodology and a multiple baseline across subjects design to examine the impact of kinder training on young children’s on-task behavior in the classroom.

**Methodology**

**Participants**

Research participants included three teachers and three children enrolled in kindergarten and first grade recruited from two elementary schools in a suburban school district in the southwestern region of the United States. Teacher participants met the following criteria: (a) expressed a desire to apply a new approach to improve students’ off-task behavior and (b) had not received any play-based professional development training. Qualified child participants were based on the following criteria (a) not labeled with significant cognitive delay as determined by special classroom placement, (b) spoke English, (c) not received counseling services such as play therapy, and (d) referred by teacher participants based on their perceptions of frequently exhibiting off-task behavior in the classroom. Individual background information for each teacher and child participant is listed below under pseudonyms.
Teacher Participant 1. Mrs. Bernard was a 36-year-old Caucasian female. At the time of the intervention, she was teaching first grade. She obtained a bachelor degree from a public university in the southwestern United States, and taught both middle and elementary school for a total of 12 years. Mrs. Bernard chose to conduct play sessions with Sarah, a 6-year-old Caucasian female enrolled in her class. At the time of the pre interview, Mrs. Bernard had known Sarah for two months.

Child Participant 1. Sarah was a 6-year-old Caucasian female enrolled in first grade. Mrs. Bernard reported that Sarah did well academically when she was on-task; however, her on-task behavior had been inconsistent. According to Mrs. Bernard, Sarah could complete a task accurately and fast when she was on-task. However, when she was off-task, she did not seem to listen to the teacher’s instructions for class activities and would fail to complete the assignments. Moreover, her off-task behavior sometimes affected her peers’ attention and participation in class as well. Regarding Sarah’s relationship with Mrs. Bernard and peers, Mrs. Bernard reported that Sarah’s connection to her teacher and peers was inconsistent and often depended on her emotional state. According to Mrs. Bernard, when Sarah was happy, she appeared more willing to interact with her teacher and peers and to participate in class activities. Mrs. Bernard also observed that when she attempted to remind Sarah to stay on-task, Sarah seemed to withdraw. Mrs. Bernard reported having tried various ways to manage Sarah’s off-task behavior, including asking her to sit by herself to finish the task, giving her reminders, and providing her one on one attention by asking her to sit near the teacher’s table. However, Mrs. Bernard found these methods did not seem to improve
Sarah’s on-task behavior and seemed to have a negative impact on Sarah’s self-esteem.

**Teacher Participant 2.** Mrs. Arnold was a 38-year-old Hispanic female who received a graduate degree in education from a public university in the western United States, and taught first grade and kindergarten for a combined total of seven years. Mrs. Arnold was also a Montessori certified teacher, and at the time of the intervention, was teaching a kindergarten dual language class. Mrs. Arnold chose to conduct play sessions with Jason, a 5-year-old bi-racial male enrolled in her class. At the time of the pre-interview, Mrs. Arnold had known Jason for two months.

**Child Participant 2.** Jason was a 5-year-old bi-racial male enrolled in kindergarten. Mrs. Arnold reported that Jason had been academically behind since the beginning of kindergarten. She further described Jason as having difficulty in understanding the teacher’s instructions and paying attention to her. According to Mrs. Arnold, when she tried to explain things to Jason, he would show a blank expression. Mrs. Arnold further stated her concern that Jason may be dyslexic and that may be negatively affecting his academic engagement and on-task behavior. According to Mrs. Arnold’s report, Jason seemed to have difficulty learning and retaining new information, especially when the lesson was taught in a large group setting. When Mrs. Arnold taught in small groups, she was able to give Jason more attention. However, Jason still appeared to struggle with staying on-task and retaining lesson material. Mrs. Arnold stated that she and Jason have started building a relationship. At the beginning of school year, when Mrs. Arnold talked to Jason, he would avoid eye contact with her, and would not approach her to engage in conversation. Mrs. Arnold reported that she
has tried to determine Jason’s learning style and has utilized various teaching strategies, including technology integration and manipulatives to help Jason learn and stay on-task. Mrs. Arnold shared that during class time, she would initially observe Jason’s behavior, and if he were unable to stay focused, she would approach, and give him reminders and redirection.

**Teacher Participant 3.** Ms. Cook was a 37-year-old Caucasian female who received a bachelor degree from a public university in the southwestern United States. At the time of the intervention, Ms. Cook was a kindergarten teacher in her first year of teaching. Ms. Cook chose to conduct play sessions with Michael, a 5-year-old Caucasian male enrolled in her class. At the time of the pre-interview, Ms. Cook had known Michael for two months.

**Child Participant 3.** Michael was a 5-year-old Caucasian male enrolled in kindergarten. Ms. Cook reported that Michael would participate in class activities if he was interested in the topic. Overall, Michael easily got distracted and had difficulty starting and completing tasks. According to Ms. Cook, Michael tended to be very quiet, and did not initiate communication or engage with her in conversation often. As such, Ms. Cook perceived that Michael was not very connected to her.

**Instrumentation**

**Direct Observation Form (DOF).** The DOF (McConaughy & Achenbach, 2009) is an instrument used to assess preschool to fifth grade children’s behavior in the classroom, at recess, and in other group settings during a 10-minute segment of time. During a 10-minute period of time, a trained observer rates an identified child’s on-task and off-task behaviors and writes a description of the child’s behavior at 1-minute
intervals. After each 10-minute observation, the observer immediately completes 89 problem items. Each observation is based on a rating of 0 (behavior not observed), 1 (very slight occurrence), 2 (definite occurrence with mild to moderate intensity and lasting less than 3 minutes total duration), and 3 (definite occurrence with severe intensity or occurrence lasting more than 3 minutes in duration). The DOF procedures require a minimum of two and a maximum of six separate 10-minute observations of the child to obtain an average score computed by the DOF scoring software. Because of the variability of the child’s behavior, McConaughy and Achenbach recommended 3 to 6 separate observations on at least 2 different days.

DOF provides scores for the total problems scale, the on-task scale, and the six syndrome subscales of withdrawn/inattentive, nervous/obsessive, depressed, hyperactive/attention, demanding, and aggressive. The mean $r$ of inter-rater reliability for classroom observations was calculated as .88 for the total problems score and as .97 for on-task/off-task score. The generally accepted level of inter-observer agreement (IOA) for classroom observations for good agreement on discrete behavior is 80% to 90%. McConaughy and Achenbach (2009) reported that content validity and criterion-related validity of the DOF were evaluated and established.

For the purposes of this study, two trained observers conducted the DOF observations three times per week during the baseline and treatment phases. The observers completed and recorded observations of participating children as well as children not included in the study. Therefore, the trained observers were blinded to the children’s treatment status. To establish the inter-rater reliability for on-task ratings, I assessed two observers’ inter-observer agreement (IOA) on practice cases by using the
“Percent Agreement Index” (Hintze, 2005) based on the recommendation of McConaughy and Achenbach (2009). In this study, the mean IOA for on-task reached 86%, which was within acceptable levels for agreement.

**Procedures**

I gained university human subjects approval prior to the start of the study. I invited teachers from two elementary schools to participate in the kinder training. The recruitment involved making a presentation to a large group of teachers, explaining the voluntary nature of participating in the study, and providing informational fliers for teachers and parents. Teacher participants gave informed consent to receive individual kinder training, participate in a pre- and post-intervention interview, conduct video-recorded teacher-directed play sessions, and participate in video-recorded supervision sessions. Parents or legal guardians also provided informed consent and assent form for child participants to take part in an intervention where they would be observed in the classroom and video recorded in teacher-directed play sessions. Data for each teacher and child participant was collected and analyzed separately to understand the unique changes in the individual child. To gather detailed demographic and background information of teacher participants, each teacher participant completed a teacher demographic form and participated in an individual semi-structured pre-intervention interview.

After the individual teacher interviews, the collection of baseline data from all child participants began. During the baseline phase of measurement, teacher participants did not receive kinder training and child participants did not engage in play sessions. Trained DOF observers observed the child participants’ on-task and off-task
behaviors three times per week to obtain an average on-task score. Kennedy (2005) suggested using a minimum of three data points for the baseline phase of measurement. Hence, for this study, the baseline phase continued for a minimum of 3 weeks in order to gain an average data point for each child participant. The baseline phase extended beyond three data points if a stable baseline was not achieved and continued until a stable baseline was evident. Given the nature of multiple baseline design, the length of the baseline phase was unequal across child participants, and the intervention began at different times for each teacher and child participant. The DOF was completed throughout baseline and treatment phases. To increase reliable interpretations of the stability in the baseline and treatment phase, I consulted with two supervising faculty members to determine the stability and completion of the baseline and treatment phase.

After completion of the baseline phase of data collection, I provided each teacher participant with 1 day of individual in-service kinder training, consisting of lectures, discussions, videotapes, live demonstration, and role-plays. The first part of kinder training consisted of both experiential and didactic components, including a review of child development, concepts fundamental to individual psychology (Adler, 1983; Dreikurs, 1968), play principles, and play techniques. The teacher participants were taught the play techniques of tracking, encouragement, empathy, and limit setting and learned to use them as basic guidelines to facilitate play sessions with their students. The second part of the training included the teacher practicing the newly learned play language and skills in a playroom setting. Next, the teacher and child participant engaged in once-a-week, 30-minute individual play sessions for a minimum of 6
consecutive weeks until the stability of the treatment phase was established. I conducted weekly individual supervision meetings with each teacher to discuss the child’s progress, the teacher’s reactions to the play sessions, and assist the teacher in connecting the child’s behavior in the playroom with the classroom behavior. Trained DOF observers continued observing each child’s on-task and off-task behavior in the classroom three times per week.

Table 1 provides information for each participant’s protocol during this study. After the treatment phase was completed, each teacher participated in an individual post-intervention interview. The interview allowed for gathering information about teachers’ experiences with kinder training as well as perceived changes in the participating child’s behavior.

Table 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Weeks</td>
<td>Number of Sessions</td>
</tr>
<tr>
<td>Jason</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Michael</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Sarah</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

Data Analysis

For this study, I used visual data analysis as the primary method of data analysis, examining the level, trend, variability, immediacy of effects, and overlap to analyze within- and between-phase patterns (Kazdin, 1982; Kennedy, 2005; Kratochwill et al., 2010; Morgan & Morgan, 2009). Level refers to the mean score of the data within a phase. Trend refers to the slope of the best fitting straight line for the data within a
phase. The data within a phase is considered more stable when data points are closer to the trend line. Variability of data refers to deviation in scores of the trend line (Horner, Swaminathan, Sugai, & Smolkowski, 2012; Kratochwill et al., 2010).

In the first part of the analysis, I determined whether the baseline data demonstrated a predictable baseline pattern of the proposed problem. Second, I assessed the level, trend, and variability of the data in each phase of the study to examine within-phase patterns. Third, I compared the between-phase patterns for adjacent phases of data to determine if an effect is present. Last, I integrated all data to determine whether the two data points demonstrated the presence of an experimental effect. In addition to examining within-phase patterns, I examined the immediacy of the experimental effect and overlap across phases. According to Kratochwill et al. (2010), immediacy of the effect refers to the change in the mean or median difference between the last three data points in one phase and the first three data points of the next. Generally, the greater immediacy of effect, the more likely the change is associated with the manipulation of the intervention. Overlap is the proportion of data from one phase that overlaps with data from the previous phase. Lower proportion overlap suggests a larger effect. Additionally, the weight of the overlap is greatest when trend and variability are minimal (Horner et al., 2012; Kratochwill et al., 2010).

I also included an additional vertical analysis to determine internal validity as suggested by Horner et al. (2012). Vertical analysis of multiple baseline aims to assess whether changes in the first series following manipulation are associated with no changes in the other series where the intervention is not implemented. Hence, I compared data in each series to examine if absence of change is found in the non-
intervened series (participant 2 and 3). If change occurs in one series and not in others following phase change, it infers that the change is due to manipulation of the intervention rather than uncontrolled events (Horner et al., 2012). Finally, estimations of treatment effect were used in conjunction with visual analysis. I used Tau-U statistic, a nonoverlap method to calculate effect sizes of the magnitude of the relationship between the baseline phase and the intervention phase. As suggested by Parker, Vannest, Davis, and Sauber (2011), I used a Tau-U software application to calculate the degree of the kinder training’s effectiveness. Tau-scores can range from 0% to 100%. The interpretations of Tau-U results recommend 65% or lower for small effect, between 66% and 92% for medium to high effect, and 93 to 100% for strong effect (Parker et al., 2011; Rakap, 2015).

Results

Two DOF observers were assigned child participants to observe the child’s on- and off-task behavior for 10-minitue intervals three times a week. This generated one average weekly score for on-task behavior. I conducted within- and between-phase analysis by assessing the level, trend, variability, immediacy of effect, and overlapping data. In addition to visually analyzing data, I calculated an effect size using the Tau-U statistic.

Table 3
Summary of All Participants’ Results

<table>
<thead>
<tr>
<th>Participant</th>
<th>$M^b$</th>
<th>$SD^b$</th>
<th>$M^i$</th>
<th>$SD^i$</th>
<th>Tau-U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason</td>
<td>5.90</td>
<td>1.08</td>
<td>6.83</td>
<td>0.97</td>
<td>47%</td>
</tr>
<tr>
<td>Michael</td>
<td>6.58</td>
<td>1.16</td>
<td>8.11</td>
<td>1.02</td>
<td>74%</td>
</tr>
<tr>
<td>Sarah</td>
<td>7.00</td>
<td>1.19</td>
<td>8.71</td>
<td>0.39</td>
<td>90%</td>
</tr>
</tbody>
</table>
Note. $M^b$ = mean of baseline phase. $M^i$ = mean of intervention phase. $SD^b$ = standard deviation of baseline phase. $SD^i$ = standard deviation of intervention phase. Increased scores indicate improvement.

**Participant 1: Jason**

Jason participated in 5 weeks of a non-intervention baseline phase and 9 weeks of intervention phase where he participated in 9 play sessions. Figure 1 provides a graphical representation of data collection for Jason and illustrates the data level and trend across phases of the study. Evaluation of each phase demonstrated that data were variable during the baseline and intervention phase. Level analysis revealed a mean increase from the baseline phase to the intervention phase, indicating a slight improvement in Jason’s on-task behavior during the intervention phase. Trend analysis indicated that there was a decreasing contra-therapeutic trend during baseline and an increasing trend in a therapeutic direction during intervention. Analysis of variability demonstrated a moderate variability during the baseline and intervention phases. Data became visibly stable starting with the third data point in the intervention phase. There was a small immediacy of the experimental effect. A large portion of overlapping data was observed during the baseline and intervention phases. Tau-U effect size indicated a small treatment effect.
Figure 1. Jason’s On-task Scores During Baseline and Intervention Phases. (Increased scores indicate improvement).

After completion of the study, Jason’s teacher, Mrs. Arnold participated in a post interview. Mrs. Arnold reported that kinder training has given her the opportunity to understand Jason’s emotions, thoughts, strengths, and other characteristics that she was not aware of in the classroom setting. Mrs. Arnold also stated that Jason was struggling academically and she became more aware of what Jason needed in order to succeed at school. Although Jason’s on-task behavior seemed inconsistent, Mrs. Arnold observed that when she provided Jason with encouragement, he made increased efforts to do assigned tasks and remain on-task. According to Mrs. Arnold, prior to the kinder training, Jason would only stay focused on the topics he liked and would easily give up on challenging tasks. Jason appeared more willing to try some challenging work if Mrs. Arnold encouraged him. Mrs. Arnold reported that Jason appeared to like her encouragement as evidenced by his smiling responses. Mrs. Arnold noted that because of the intervention, her relationship with Jason greatly improved. Mrs. Arnold shared that
Jason seemed to feel safer and more comfortable to approach her and spend more time engaging her in conversation.

**Participant 2: Michael**

Michael participated in 6 weeks of a non-intervention baseline phase and 9 weeks of intervention phase where he participated in 9 play sessions. Figure 2 shows a graphical representation of data collection for Michael and illustrates the data level and trend across phases of the study. Evaluation of level change revealed a mean increase from the baseline phase to the intervention phase, indicating on-task behavior improved during the intervention phase. Trend analysis within the baseline and intervention phases revealed a decelerating contra-therapeutic trend during baseline and an accelerating trend in a therapeutic direction during intervention. This demonstrated a positive change in Michael’s on-task behavior across phases. Analysis of variability showed moderate variability between phases. The treatment showed an immediate effect as the mean of the first three data points in the intervention phase was higher than the last three data points in the baseline phase. Data became visibly stable starting with the third data point in the intervention phase. There was moderate overlapping data observed between the baseline and intervention phase. Additionally, Tau-U effect size indicated a moderate to high treatment effect.
Figure 2. Michael’s On-task Scores During Baseline and Intervention Phases.
(Increased scores indicate improvement).

After completion of the study, Michael’s teacher, Ms. Cook participated in a post interview. Ms. Cook considered that kinder training was helpful because it allowed her to build an individual relationship with Michael and provided her the opportunity to better understand Michael’s personality. Ms. Cook reported her awareness that Michael appeared to be an introverted student, so he tended to internalize his thoughts and feelings. Thus, it caused her to easily overlook his needs in the classroom setting. Ms. Cook reported that she observed a significant difference in Michael’s eagerness to participate in class activities and discussion. Their relationship became closer as Michael seemed to feel safer to communicate with her. Ms. Cook also indicated that Michael’s on-task behavior had improved. Moreover, Ms. Cook reported that Michael became more aware when he was off-task as he would approach her and tell her that he had been distracted. Lastly, Ms. Cook shared that she realized that reflecting Michael’s feelings and encouraging him were important to his learning process because
he seemed to become more confident and have more courage to communicate his needs and thoughts once she encouraged his efforts in class activities and participation.

**Participant 3: Sarah**

Sarah participated in 7 weeks of a non-intervention baseline phase and 7 weeks of intervention phase where she participated in 7 play sessions. Figure 3 is a graphical illustration of all data collected for Sarah across the baseline and intervention phases. Level analysis revealed a mean increase from the baseline phase to the intervention phase. Trend evaluation demonstrated that there was a downward trend during baseline and an upward trend in a therapeutic direction during intervention. It indicated an improving change in Sarah's on-task behavior across phases. Analysis of variability showed a moderate variability in the baseline phase and a minimal variability in the intervention phase. The mean of the first three data points in the intervention phase was significantly higher than the mean of the last three data points in the baseline phase. Data became markedly increased starting with the first data point in the intervention phase, indicating an immediate treatment effect. The graph showed low overlapping data between the baseline and intervention phase. Tau-U result indicated a large treatment.

![Graph showing on-task scores for baseline and intervention phases](image)
Figure 3. Sarah’s On-task Scores During Baseline and Intervention Phases. (Increased scores indicate improvement).

Mrs. Bernard, Sarah’s teacher, participated in a post interview upon completion of the study. She reported that kinder training was helpful because she was able to understand where Sarah’s behavior was stemming from and the underlying purpose behind Sarah’s attention seeking behavior. Mrs. Bernard stated that having an understanding of Sarah’s background, she was able to recognize that Sarah strived for feelings of belonging and acceptance as well as a sense of control in the classroom. Hence, when Sarah felt left out in the classroom, she exhibited attention seeking behavior which in turn became off-task behavior. Although Sarah’s on-task behavior was inconsistent, Mrs. Bernard observed the frequency of her off-task behavior had decreased. Mrs. Bernard also shared that when Sarah was off-task, she became more compliant and willing to finish the task when the teacher facilitated choice giving. Mrs. Bernard further reported an improved relationship with Sarah that Sarah appeared to feel safer to talk to her and share personal things with her. Moreover, Sarah had become more aware of the teacher’s boundaries and would choose appropriate times to talk to the teacher, such as before class or during recess, rather than interrupting the class.

**Multiple Baseline With Participants**

To determine the treatment’s internal validity, vertical analysis of multiple baseline was assessed. Figure 4 is a graphical illustration of concurrent multiple baseline across the three participants. I compared Jason’s intervention data to Michael’s and Sarah’s baseline data to evaluate if change in on-task behavior following
the intervention was associated with no change in the non-intervened series. It revealed that Jason’s on-task behavior showed an immediate increase in week 6 following the intervention. However, there was no noticeable change in Michael’s on-task behavior in week 6, and Sarah’s on-task behavior demonstrated a downward trend in week 6 where the intervention was not implemented. Hence, the comparison between the baseline and intervention phase across three series indicated that the improvement in on-task behavior was due to the manipulation of the kinder training intervention.

Figure 4. Concurrent Multiple-baseline Across Participants
Discussion

The purpose of this study was to examine the impact of kinder training on early elementary school children’s on-task behavior in the classroom. On-task behavior was measured using the Direct Observation Form (DOF; McConaughy & Achenbach, 2009). Results of the current study suggested that kinder training was an effective play-based teacher intervention for three child participants with mean gains on on-task scores. Findings indicated that all participants demonstrated improvements in on-task behavior during the intervention phase.

Effects on On-task Behavior

Given that off-task behavior has been linked to reduced academic engagement (Sabourin et al., 2011), it has become one of the most common reasons for student referral (Roberts, 2011). To facilitate children’s academic success, elementary school teachers have expressed the importance to engage children in the learning process, a key to children’s classroom success (Lane et al., 2004; Zhang & Burry-Stock, 2003). Thus, researchers have highlighted concerns about off-task behavior of elementary school children and the need to explore the factors contributing to off-task behavior (Godwin et al., 2013).

Kinder training consists of experiential and didactic components, including a review of child development, fundamental concepts of Individual Psychology (Adler, 1983), such as lifestyle, private logic, social interest, encouragement, and goal identification. This can be particularly helpful for teachers who express eagerness to holistically understand children’s characteristics, underlying purposes of off-task behavior, and social-emotional needs. Additionally, the teachers are taught the play
principles and play techniques of tracking, encouragement, empathy, and logical consequences as basic guidelines to facilitate play sessions with their students. Specifically, play sessions can provide teachers and students with the opportunity to enhance teacher-child connections and communication.

The results of this study indicated that kinder training appeared mostly beneficial in improving on-task behavior for all participants, as the means for all participants increased during the intervention phase. Although the results showed a wide range of treatment effects, all teachers reported observing increased on-task behavior in the classroom. Additionally, teachers noted that because of the weekly individual play sessions, they experienced improved relationships and positive interactions with child participants. Furthermore, teachers indicated that weekly individual supervision sessions provided them opportunities to gain awareness of children’s feelings, thoughts, and behavior and to link the meaning of children’s play behavior to off-task classroom behavior. The results regarding the impact of kinder training on children’s off-task behavior provide support for the notion of a reciprocal relationship among children’s behaviors, teacher-child relationships, teachers’ perceptions of children’s behaviors, and teachers’ behaviors (Birch & Ladd, 1998; Gonzales, 2012; Helker & Ray, 2009; Myers & Pianta, 2008; Pianta, 1999; Yost & Mosca, 2002). Given that kinder training is based on Adlerian principles that utilize relationships for attaining a holistic understanding of children as part of facilitating change (White et al., 2000), in the current study, child participants’ improvement in on-task behavior is likely a result of the teacher-child relationship focus of the intervention. Additionally, the implementation of kinder training appeared to facilitate teachers’ understanding of children’s goals related
to off-task behavior and provided teachers with effective strategies for promoting children’s on-task behavior.

**Teacher-Child Relationships and Perceptions of On-task Behavior**

According to Myers and Pianta (2008), teacher’s perceptions and beliefs about students may serve as a foundation for the establishment of positive teacher-child relationships. Based on the findings of the current study, teachers appeared to appreciate that play sessions allowed them to build a meaningful connection with their focal child. They also reported that they were able to gain a better understanding of the child’s personality and needs, particularly within the play session context, and observe an improvement in on-task behavior in the classroom. These findings are consistent with the main purpose of kinder training and studies that have been conducted to date. For the participant with the small effect size, during the post-intervention interview, his teacher reported that he made noticeable improvements in on-task behavior, although this was not reflected in the data.

The essence of kinder training is to create an opportunity for the teacher to build a meaningful relationship with the child that Michael improve both the child’s and teacher’s behavior outside the playroom (White et al., 2000). When reviewing all three teacher participants’ experiences in conducting play sessions with the children of focus, it was evident that play sessions were effective for relationship building. Consequently, it seems reasonable to posit that the weekly play sessions seem to play an important role in increasing positive relationships between the teachers and children thereby contributing to positive change in children’s off-task behavior in the classroom environment.
Teacher’s Understanding of Goals of Off-task Behavior

It is worth noting that early in development, children’s emotions are expressed behaviorally (Pianta, 1999). Although off-task behavior often has been linked to reduced academic engagement, Roberts (2011) indicated that children might exhibit off-task behavior for the purpose of accessing more preferred activities, such as seeking adult or peer attention, or avoiding doing undesirable and challenging learning activities. Sabourin et al. (2011) also noted that some children may use off-task behavior as a coping mechanism to regulate their negative emotions or to recharge their motivation to participate in learning activities. In order to help teachers and children establish an awareness of goals of behavior, kinder training combines basic play therapy skills, Adlerian principles, and teacher consultation methods (White et al., 2000). The Adlerian approach provides a unique way for teachers to understand children’s worlds and their way of connecting to the social environment.

In the current study, through the use of Adlerian principles, play sessions and direct supervision, teachers had the opportunity to gain an understanding of children’s goals of off-task behavior and underlying emotional needs. These components appeared to facilitate teachers’ awareness of children’s unique needs and provide them with effective ways to respond to children’s off-task behavior. Hence, kinder training appears beneficial to help teachers gain an understanding of children’s off-task behavior and further change teachers’ negative perceptions of children’s misbehavior. These findings support previous literature that suggests that the teacher’s negative responses toward a child’s behavioral challenges may create more emotional disturbance within the child, influencing the child to exhibit additional negative behaviors (Gonzales, 2012).
To end this negative cycle, it is recommended that the teacher attempt to understand the child’s unique needs and provide emotional support when the child exhibits challenging behavior (Gonzales, 2012; Pronchenko-Jain, 2012; Ray, 2007). In other words, given that the teacher participants in the current study developed positive responses toward the child participant’s off-task behavior, these responses seemed to help the children decrease off-task classroom behavior.

Limitations

There are specific limitations to this study, including the lack of generalizability, potential extraneous factors, possible researcher bias, and effect size selection. Due to the single-case experimental design and data analysis of a small number of participants, this study has minimal external validity, limiting the ability to generalize the findings. However, the single-case design allowed me to gain a greater understanding of each teacher’s perspectives through in-depth data collection and explain individual behavior change through weekly observations.

Another limitation involved the occurrence of extraneous factors. It was difficult to control some extraneous factors that co-occurred during the research process. Two participants were absent from school for a few of days during the baseline and the intervention phase. Hence, it potentially affected the weekly observations and assessments of children’s on-task behavior. In addition, two participants had a one-week gap during the play session phase because the school was closed for inclement weather and testing. According to DOF results, both participants’ on-task scores appeared lower compared to other on-task scores within their intervention phase.
Although DOF observers were trained to have minimal interaction with the children in the classroom and were instructed to find a place where they could observe the children unobtrusively, the multiple, frequent classroom observations by the DOF observers may have influenced the child participants to alter their responses in the classroom.

The potential for researcher bias existed primarily because all teacher participants were trained and interviewed by me. Thus, the pre- and post-intervention interview data collection may reflect reduced objectivity as a result of my dual roles of trainer and researcher.

In addition to visual analysis in this study, I used the Tau-U statistic to calculate the degree of the kinder training’s effectiveness. Tau-U appears a stronger performing non-parametric method for analyzing single-case data and appropriate for small data sets (Brossart, Vannest, Davis, & Patience., 2014; Parker et al., 2011). However, Tau-U is a relatively new model (Parker et al., 2011). Further study is needed to examine the effects of incorporating the Tau-U effect size with visual analysis for quantifying intervention effectiveness in single-case designs.

Clinical Implications

To date, this study is the first to use single-case experimental design to examine the effect of kinder training on elementary school children exhibiting off-task classroom behavior. The findings indicate many clinical implications for implementing kinder training in schools. Results suggest that counselors can use kinder training in schools to successfully help early elementary school children who exhibit off-task behavior.
The findings of this study provide support for implementing kinder training in schools as a prevention or early intervention training model aimed at decreasing off-task behavior and enhancing children’s academic engagement in the school environment. Additionally, due to the lack of training regarding children’s mental health and wellness in teacher education programs, counselors may also consider providing kinder training to pre-service teachers so that they may be better equipped to support children’s social-emotional needs in the future.

Regarding the format of kinder training, the individualized format appears to allow flexibility to meet each teacher’s unique needs by tailoring the kinder training and addressing individual concerns regarding children of focus during the in-service training. Moreover, I was able to build an individual relationship with each teacher throughout the kinder training, providing me the opportunity to understand and support each teacher’s emotional needs and learning. Hence, counselors may consider conducting individual kinder training with teachers to enhance the quality of the training.

Implications for Future Research

This study represents an initial investigation of the impact of kinder training on early elementary school children’s off-task behavior in the classroom. Hence, this study serves as a foundation for future studies in this area. Due to the limited research studies examining the effects of kinder training for children’s off-task behavior, in the future researchers may consider conducting kinder training with a larger sample size in multiple settings to expand the evidence for the effectiveness of kinder training and establish the kinder training intervention as an empirically supported treatment.
Because of the reciprocal relationship among teacher-child relationships, teacher’s stress, and children’s behavior, researchers may also consider including additional assessments to analyze the weekly interaction between the teacher and the child as well as evaluate the teacher’s level of stress. This exploration may increase an understanding of the impact of kinder training on the cyclical relationship between teacher’s level of stress and children’s problem behavior.

Other areas for future research would include the effects of kinder training with children with special needs. In addition, due to the growth of the immigrant population in the United States, it seems beneficial to investigate the impact of the intervention on English-as-a-second language students and teachers. Finally, elementary school teachers may experience various challenging behaviors from children of different ages and developmental levels. Although kinder training is designed for K through 2nd grade, the kinder training model could be adapted to meet the needs of older students and researchers may consider exploring the effect of a school-wide kinder training intervention.

**Conclusion**

The number of young children exhibiting behavioral problems has significantly increased in recent years. Teachers particularly feel challenged by children’s off-task behavior in the classroom (Powell et al., 2006). Hence, off-task behavior has become one of the most common reasons for teacher’s referrals to school counselors (Roberts, 2011). Children who continuously exhibit off-task behavior may not only reduce engagement in learning (Lane, Wehby, & Cooley, 2006; Luiselli, Putnam, Handler, & Feinbergl, 2005) but also increase teaching stress and cause strained teacher-child
relationships (White et al., 2000; Ray, 2007). However, children’s emotional distress may contribute to their emotional difficulties and can often result in a lack of academic engagement (Edwards et al., 2009; White et al., 2000). Teachers who lack training in effectively attending to children’s emotional needs and off-task behavior may potentially increase children’s additional problem behavior.

The purpose of this study was to investigate the impact of kinder training with children exhibiting off-task behavior. Specifically, I examined the effectiveness of kinder training on early elementary school children’s on-task behavior in the classroom. The findings provide support for kinder training as an effective play-based teacher professional training model that can improve children’s on-task behavior. Results demonstrated that all child participants showed improvement in on-task classroom behavior as measured by the DOF. Visual analysis revealed that all participants demonstrated an increasing therapeutic trend during the intervention phase, indicating a positive change in participants’ on-task behavior during the intervention phase. All teacher participants reported observing improvement in child participants’ on-task behavior and teacher-child interactions. Teachers’ post-intervention reports supported the notion of reciprocal interactions among teacher-child relationships, understanding of children’s lifestyle and goals of misbehavior, and children’s on-task behavior.
References


APPENDIX A

EXTENDED REVIEW OF THE LITERATURE
Relationships with significant adults, such as parents, primary caregivers, and teachers can greatly influence young children’s developmental pathways and impact their future success (Draper, Siegel, White, Solis, & Mishna, 2009; Guerney, 2000; Hamre & Pianta, 2001; Landreth & Bratton, 2006; Pianta, 1999). Pianta (1999) also discussed the effect of inadequate attachment on children’s lifelong developmental outcomes. In other words, adult-child relationships may serve a regulatory function in young children’s development (Pianta & Stuhlman, 2004). Specifically, children who have experienced unstable and negative relationships in early childhood have a higher risk for challenges in social, emotional, and cognitive development and therefore have the potential to exhibit poor school performance and classroom adjustment (Janson & King, 2006; Perry, 2001; Pianta & Stuhlman, 2004).

Because of the large amount of time they spend with their students, teachers can be powerful and significant role models in children’s lives (Pianta, 1999; Stulmaker, 2013). Hence, children’s relationships with their teachers are among the most important relationships they establish in the school environment and are a potential resource for improving developmental and academic outcomes (Baker, 2006; Birch & Ladd, 1997; Janson & King, 2006; Pianta, 1999). In fact, researchers have focused on the role of teacher-child relationships in the social-emotional well-being and academic success of school-aged children and have suggested that young children’s developmental and school-related outcomes depend on the quality of teacher-child relationships (Baker, 2006; Birch & Ladd, 1997, 1998; Hamre & Pianta, 2001, 2005; O’Connor & McCartney, 2007; Pianta, 1999; Pianta & Stuhlman, 2004). Pianta (1999) also argued that teacher-child relationships may serve as a protective factor for children’s learning and
behavioral problems. As a result, researchers have indicated that positive teacher-child relationships may enhance children’s social-emotional development, prosocial behavior, and academic skills (Draper, White, O’Shaughnessy, & Jones, 2001; Myers & Pianta, 2008; Pianta, 1999).

Positive teacher-child relationships provide children with substantial emotional support and security that may facilitate children’s school competencies, including self-regulation, social behavior, attention, academic engagement, and motivation, thereby contributing to a functional classroom environment (Baker, 2006; Birch & Ladd, 1997; Hamre & Pianta, 2005; Howes, 2000; Janson & King, 2006; Myers & Pianta, 2008; Pianta, 1999). However, negative teacher-child relationships have been linked to children’s poor behavioral and academic outcomes as well as negative attitudes about school (Birch & Ladd, 1997; Decker, Dona, & Christenson, 2007; Garner & Waajid, 2008). Baker (2006) further proposed that children’s classroom behavior and academic achievement may be reciprocally associated and greatly influenced by the quality of teacher-child relationships.

Challenging behavior has become recognized as an impediment to young children’s learning, social-emotional development, and school success (Powell, Dunlap, & Fox, 2006). Hamre and Pianta (2001) also found that teacher-child relationships during kindergarten predict children’s academic adjustment through the fourth grade and their behavioral regulation through middle school. Given the reciprocal relationship between teacher-child relationships and children’s learning and development, researchers have investigated the impact of teacher-child relationship quality on children’s school outcomes. Specifically, researchers have examined the role of
teacher-child relationships in supporting children who struggle behaviorally and academically in the schools.

Teacher-Child Relationships and Classroom Behavior

Many elementary school teachers have reported that managing children’s classroom behaviors and engaging children in the learning process are priorities for teachers and noted cooperation and attentional self-regulation as crucial to children’s successful participation in group learning situations (Lane, Givner, & Pierson, 2004; Myers & Pianta, 2008; Powell et al., 2006; Zhang & Burry-Stock, 2003). Pianta (1999) considered the child to be a system developing in a context. Children demonstrating problematic behavior are embedded within a system of family factors, life stressors, and childhood characteristics (Pianta, 1999). In context, children often face numerous stressors such as parental divorce, single parenthood, child abuse and neglect, grief and loss, poor academic performance, difficulty developing a sense of belonging in school, and teacher-student conflict (Birch & Ladd, 1998; Draper et al., 2001; White et al., 1997). Early in development, children’s emotions are expressed behaviorally (Pianta, 1999). Thus, when children struggle with emotional stress, they may display problem behaviors that impede learning and development (White et al., 2000). Because teachers spend a great deal of time with their students, they are more likely to encounter the various and negative effects of children’s stressful lives (White et al., 2000).

Research has shown that relational stressors, such as teacher-child conflict may serve as a powerful predictor of children’s school adjustment, problem behaviors in the classroom, and chronic risk (Birch & Ladd, 1998; Ladd & Burgess, 2001). Ray (2007) reported that most teachers lack necessary skills for effectively responding to children’s
social-emotional needs when those children exhibit challenging behavior in the classroom. Additionally, children’s emotional difficulties and behavioral problems may strongly impact teachers’ levels of stress and inhibit the quality of the resulting teacher-child relationships (Ray, 2007; White et al., 2000).

In light of the importance of teacher-child relationships and the need to equip teachers with skills to therapeutically respond to young children exhibiting emotional reactions and problematic behavior, Gonzales (2012) conducted Child-Teacher Relationship Training (CTRT) with 23 Head Start teachers/aids and examined the impact of the training on young children’s disruptive behavior in the classroom. The results showed that children’s disruptive behavior demonstrated significant improvement following implementation of CTRT; moreover, teacher participants’ perspectives of children’s disruptive behavior changed over time. Gonzales thus presented the relationship reciprocal cycle (RRC), illustrated in figure 1, and concluded that a lack of training in responding to children’s emotional and behavioral needs may cause teachers and children to become caught in a never-ending cycle of poor responses. When the cycle is allowed to repeat between a child and teacher the following outcomes occur: (a) the child shows disruptive behaviors stemming from emotional disturbance, (b) the teacher feels challenged and ineffective due to the child’s disruptive behavior, (c) the teacher’s feelings create a strain on the teacher-child relationship, (d) the teacher develops a negative perception of the child, (e) the teacher responds to the child in a negative way that may include threats or punishments, and (f) the teacher’s negative responses create more emotional disturbance within the child, influencing the child to display additional disruptive behaviors.
Consistent with Gonzales’ (2012) findings, Yost and Mosca (2002) also noted that teachers who have a higher level of teaching stress and strained teacher-child relationships tend to respond to children in ways that perpetuate rather than prevent children’s problematic behaviors. Both teachers and children may therefore experience the school environment negatively because of the continuity of a negative cycle of interaction (Helker & Ray, 2009; Myers & Pianta, 2008).

![Figure 1. Reciprocal relationship cycle (RRC)](image)

Various researchers have also found there to be a reciprocal relationship among teacher-child relationships, children’s behaviors, teachers’ perceptions of the children’s behaviors, and teachers’ behaviors. In a longitudinal study, Birch and Ladd (1998) examined the association between kindergarten children’s behavioral orientation and features of their relationships with their first grade teachers and suggested that teacher-child relationships may be a potential moderator of children’s behavioral orientations.
Participants of this study included 199 kindergarten children and 17 teachers. Researchers interviewed children’s kindergarten teachers during the first year of the study, and then interviewed participating children’s first grade teachers in the next year of the study. They categorized children into three behavioral orientations: (a) children who exhibited aggressive and disruptive behavior were characterized as moving against others, (b) children who lacked an interest in connecting with other children were characterized as moving away from others, and (c) children who showed cooperative and helpful behavior were characterized as moving toward others. Children's behavior was measured using the Child Behavior Scale (Ladd & Proﬁlet, 1996) and the teacher-child relationship was assessed by the Student-Teacher Relationship Scale (Pianta et al., 1995).

The results indicated a positive correlation between early maladaptive behavior and teacher-child conflict and dependency. The findings of the study also showed a negative correlation between early antisocial behavior and teacher-child closeness. Birch and Ladd (1998) concluded that children’s early behavioral styles in the classroom have concurrent and long-term relevance to teacher-child relationships or peer relationships. They further hypothesized that the child’s ability to engage in teacher-child closeness predicts the child’s ability to establish positive peer relationships. Consequently, in order to enhance children’s behavioral adjustment outcomes, it is necessary to provide appropriate relationship interventions to enable teachers to improve the quality of their interactions with children (Birch & Ladd, 1998).

To explore teachers’ perspectives on young children’s types of behavior problems in the transition to kindergarten, Rimm-Kaufman, Pianta, and Cox (2000)
surveyed a national sample of more than 3,500 kindergarten teachers and asked them to identify the problems or challenges that impede children’s adjustment to kindergarten. Participant teachers reported that approximately one-third of the children in their classrooms exhibited some problems making the transition to kindergarten. When asked to identify the specific problems demonstrated by the children who seemed to experience challenges in adjusting to school, 46% of the kindergarten teachers reported that at least 50% of the children in their classes had difficulty following directions. The other significant problems most frequently reported by the teachers included children’s lack of: (a) academic skills, (b) organized home environments, (c) ability to work independently, (d) formal preschool experiences, (e) ability to work in a group with other children, (f) appropriate social skills, and (g) communication skills. These findings highlight the importance of academic, social, and behavioral skills in facilitating children’s adjustment to kindergarten (Rimm-Kaufman et al., 2000). That is, kindergarten teachers not only value academic skills but also place strong emphasis on children’s social and task-oriented skills as indicators of their readiness and success for school. Rimm-Kaufam and colleagues (2000) further noted that teachers’ expectations for kindergarten children may influence their perceptions of children’s behavior problems. When helping young children in the transition to school, teachers’ perceptions of children’s challenging behaviors may result in having lasting effects on teacher-child relationships and children’s school achievement (Rimm-Kaufam et al., 2000).

Given that teacher-child relationships plays a critical component of the quality of the young children’s experience, Dobbs and Arnold (2009) used an attribution theory framework to examine the relationship between preschool teachers’ perceptions of
children’s behaviors and the way teachers interact with children. Participants of this study included 24 preschool teachers and 107 preschool children. Caregiver-Teacher Report Form (C-TRF) and classroom observations of teacher-child interactions were conducted to investigate the correlations between teachers’ perceptions and behaviors. The results indicated that teachers tended to give more commands to children who they reported as having more total behavior problems and more externalizing problems. Hence, Dobbs and colleague (2009) argued that teachers’ perceptions of children’s behavior may predict teachers’ behavior toward those children. This study highlighted the power of teachers’ perceptions on their behavior toward students. It seems essential to explore teachers’ perceptions of a child’s behavior when addressing a child’s behavior problems. As a result, Dobbs and colleague (2009) suggested that teacher training programs focusing on understanding teachers’ experiences, perceptions, and needs in their relationships with children may reduce teachers’ difficulties with children in classrooms. In turn, then, teachers may improve their interactions with their students exhibiting problem behaviors (Dobb & Arnold, 2009).

The results of above research studies appear to empirically validate Pianta’s (1999) conceptual model of student-teacher relationships. Pianta (1999) noted that relationships between teachers and students primarily incorporate three components, including external influences on systems, features of the individuals, and interactive student-teacher exchanges. Myers and Pianta (2008) pointed out that teacher perceptions and beliefs about students and their roles as teachers in supporting students’ learning and growth serve a foundation to the establishment of positive teacher-child relationships. Pianta (1999) used the term filters to explain how an adult’s
perceptions of a child and selective attending to a child’s different needs can cause potentially distorted interpretations of the child’s behavior. In any adult-child relationship, the adult tends to hold general perceptions of the child’s characteristics and behaviors. Pianta (1999) further indicated that when the teacher believes the child is demanding his or her attention, the teacher is filtering the child’s behavior through the general perception the adult holds. The teacher then interprets the child’s behavior according to the filter and mirrors these filtered perceptions of the child (Pianta, 1999). Accordingly, the teacher’s filtered interpretations of the child’s behavior may influence the teacher’s behavior toward the child and consequently affect the quality of the teacher-child relationship.

In the classroom setting, teachers aim to engage children in the learning process and consider maintaining focused attention in the classroom as a key for successful learning. Given that off-task behavior has been linked to negative effects on children’s learning, researchers have increased concerns about off-task behavior of elementary school children and indicated the need to explore the factors contributing to off-task behavior (Godwin, Almeda, Petroccia, Baker, & Fisher, 2013; Sabourin, Rowe, Mott, & Lester, 2011). Sabourin et al. (2011) investigated relationships between students’ moods, affect transitions, and off-task behavior in narrative-centered learning environments. The results indicated off-task behavior may be associated with children’s negative emotional states during their learning process, such as frustration or confusion. That is, when students experience challenging learning activities, off-task behavior may serve as an emotion regulation mechanism for students to renew their motivation to participate in learning activities (Sabourin et al., 2011). Consequently, if the teacher
perceives the child exhibiting off-task behavior as discouraged or nervous, the teacher
may interpret the child’s off-task behavior as stemming from emotional stress and
respond with support or encouragement. In contrast, the teacher who describes a child
as having difficulty staying on task may consider the child unmotivated or reluctant to
engage in academic activities, rather than understand the purpose of the child’s off-task
behavior or potential emotional needs. The teacher’s specific interpretation of the child’s
off-task behavior may influence the teacher’s way interacting with the child and cause
strained teacher-child relationships (Kuklinski & Weinstein, 2000). In turn, the teacher
may make discouraging statements to the child, causing the child to become more
emotionally disturbed.

The teacher-child relationship appears to interact in reciprocal exchanges (Dobbs &
Arnold, 2009). When the child’s behaviors do not meet the teacher’s expectations for
acceptable classroom behaviors, the teacher’s perceptions act as filters for information
on the child’s challenging behaviors. The teacher may respond in a manner that
demonstrates a lack of sensitivity and understanding of the child’s individual differences
and underlying needs resulting in negative teacher-child interactions and relationships
and a subsequent continuity of the child’s behavioral and academic concerns (Myers &
Pianta, 2008). As a result, teachers need to build consistent and nurturing relationships
with children to understand and meet children’s emotional needs and promote children’s
positive outcomes (Howes & Bowman, 2002; Perry, 2001; Pianta, 1999). Specifically,
given that teachers consider children’s learning behavior as a key to school success
and researchers have found that teacher-child relationship quality is a contributor to
children’s academic achievement, it is also important to discuss the impact of teacher-child relationships on children’s academic engagement and achievement.

Academic Engagement and Academic Achievement

Regarding children’s academic engagement, Al-Hendawi (2012) suggested that researchers investigate a multidimensional construct, consisting of behavioral, emotional, and cognitive components. Behavioral academic engagement refers to students’ behavioral efforts to become involved in learning and includes participation, effort, persistence, involvement in academic activities, and on-task behavior (Al-Hendawi, 2012). Emotional academic engagement relates to students’ affect, interests, and emotions toward academic tasks, teachers, peers, and self (Al-Hendawi, 2012). Cognitive academic engagement is connected to motivational goals, self-regulated learning, and students’ learning outcomes (Al-Hendawi, 2012). Yet, cognitive academic engagement is most often measured through behavioral engagement as demonstrated by children’s cooperative participation, compliance to classroom rules and routines, self-directedness, persistence, and effort (Fredricks, Blumenfeld, & Paris, 2004; Hughes & Kwok, 2007).

To date, the majority of research studies continue to focus on investigating children’s off-task behavior and its impact on children’s learning outcome. Prior research examining the frequency of children’s off-task behavior in the classroom has estimated that children spend approximately 10% to 50% of their time off-task in regular education classrooms (Lee, Kelly, & Nyre, 1999). Children’s learning behavior in the classroom can significantly depend on their relationship with the teacher as well (Pianta, 1999). For many children, the motivation to learn and put effort into learning tasks is related to the quality of the teacher-child relationship (Abidin, Greene, & Konold, 2004).
Hence, lack of positive interactions between teachers and children may interfere with children’s academic learning process and development (Birch & Ladd, 1998). Unfortunately, many children do not seem to have satisfactory relationships with their teachers, leading researchers to examine the impact of the teacher-child relationship on children’s learning behaviors and academic engagement. As a result, the following research studies specifically discuss the impact of teacher-child relationship on the child’s behavioral engagement and academic achievement.

Birch and Ladd (1997) categorized teacher-child relationships as close, conflictual, or dependent. In their study of 206 kindergarten children’s school adjustment, they found that close teacher-child relationships were positively linked with children’s successful academic performance, degree of school liking, self-directedness, and social-emotional development (Birch & Ladd, 1997). On the other hand, the researchers noted that conflictual teacher-child relationships may cause children to continuously engage in discordant interactions with teachers, be unable to perceive teachers as a secure base for learning and growth, and be less cooperative and engaged with classroom activities. Finally, Birch and Ladd found that children in dependent teacher-child relationships tend to show a high degree of overdependence on their teachers. The dependency in these relationships may restrict children’s curiosity, learning, and peer relationships and may result in poorer academic performance, more negative school attitudes, and less engagement with school activities (Birch & Ladd, 1997). These findings highlight the effect of teacher-child relationship quality on young children’s learning behavior and school adjustment.
To investigate the association between relational stressors and psychological and school adjustment of behaviorally at-risk young children, Ladd and Burgess (2001) observed 400 children and their teachers from kindergarten through the completion of first grade. The results indicated that children with behavioral problems were less likely to cooperate in the classroom and engage in academic tasks. Children who had negative relationships with teachers and peers were less likely to enjoy school and engage in classroom activities and more likely to show more severe disruptive behaviors, thought problems, and attention problems by the completion of the first grade. Ladd and Burgess concluded that at-risk children experiencing ongoing strained relationships with teachers show a greater risk of developing psychological maladjustments that prevent them from benefitting from learning, and developing academic competency.

Pianta and Stuhlman (2004) examined the correlations between teacher-child relationships and 490 young children’s social and academic skills over a 3-year period. Preschool, kindergarten, and first-grade teachers reported their perceptions of their relationships with the participant children using the short form of the Student-Teacher Relationship Scale (STRS; Pianta, 2001). In addition, Pianta and colleague investigated the association between teacher-child relationships and children’s behavior problems based on mothers and teachers’ ratings of children’s internalizing and externalizing behavior. The results showed that mothers’ reports of children’s internalizing behavior (e.g., depression and anxiety) was related to the pre-school and first grade teachers’ report of conflict in their teacher-child relationships. Mothers’ ratings of children’s externalizing behavior (e.g., aggression and hyperactivity) was associated with the pre-
school teachers’ relational conflict reports. Pianta and Stuhlman (2004) argued that the conflict and closeness within teacher-child relationships might significantly predict first grade children’s academic achievement and social competence. Furthermore, emotional support from teachers who help children establish positive and emotionally secure relationships with adults may predict a broad range of social and task-orientation competencies (Hamre & Pianta, 2005; Howes et al., 2008; Ladd & Burgess, 2001; Pianta, 1999).

In a longitudinal study with 880 children from birth to third grade, O’Connor and McCartney (2007) found that the quality of the teacher-child relationship is highly associated with student academic achievement. The researchers indicated that the quality of the teacher-child relationship notably changed from preschool to third grade and indicated that children whose relationships with teachers were on a decreasingly positive trajectory from preschool to third grade demonstrated lower achievement performance in the third grade. However, children who built increasingly positive relationships with teachers demonstrated higher achievement performance. Therefore, the quality of the teacher-child relationship can predict and foster children’s academic achievement. Moreover, O’Connor and colleague found that the quality of the teacher-child relationship correlated with students’ engagement in the classroom, indicating that students who have positive teacher-child relationships tend to be more engaged and attentive in the classroom. Finally, O’Connor and McCartney suggested that interventions aimed to improve children’s academic achievement should focus on the teacher-child relationship.
Researchers have recognized the impact of a positive emotional climate on at-risk children’s development of self-regulation and academic outcomes (Hamre & Pianta, 2005; Ladd & Burgess, 2001; Myers & Pianta, 2008). Teachers tend to link student engagement and on-task behavior with classroom participation (Hamre & Pianta, 2005), and researchers have focused on examining relationships between teacher emotional support and students’ class participation rates. For example, Pianta, La Paro, Payne, Cox, and Bradley (2002) observed the quality of kindergarten classrooms in three states and assess its relations to teachers’ and target children’s behaviors as well as teacher-child interactions. The results indicated that among 223 kindergarten children, those who experienced an emotional, child-centered classroom climate showed more on-task and learning behavior than children who experienced an instructional and teacher-directed classroom. Specifically, when teachers demonstrated warmth and caring, the children exhibited more on-task behavior. Pianta et al. (2002) further reported when teachers provided a more child-centered classroom climate that allowed children more freedom and choice, children tended to display positive support and interactions with peers as well as increased on-task behavior and engagement in learning.

Hamre and Pianta (2005) used data from a national prospective study of 910 children to examine if children’s high risk for school failure could be moderated by support from first-grade teachers. Specifically, Hamre and colleague (2005) examined whether children who were at risk in kindergarten and later had first-grade teachers exhibiting strong instructional and emotional support demonstrated higher achievement than other at-risk children who received limited emotional support from teachers. The results showed that at-risk children who received strong instructional and emotional
support in the first-grade classroom had higher achievement scores and better relationships with their teachers. Hamre and Pianta (2005) concluded that school-based prevention and intervention programs focused on improving the social and emotional climate of classrooms can facilitate children’s academic, social, and behavioral development. Additionally, school-based interventions that target improvements in the quality of teacher-child interactions can improve children’s positive learning and developmental outcomes (Hamre & Pianta, 2005).

Patrick, Ryan, and Kaplan (2007) examined the correlation between early adolescents’ perceptions of the classroom environment and their engagement in the classroom. Participants in this study included 602 fifth grade children. The findings demonstrated a strong positive relationship between students’ perception of the classroom environment as being supportive and their levels of motivation and engagement. Patrick and colleagues (2007) concluded that when students perceive that they receive emotional support and encouragement from teachers, they are more likely to be on-task in the classroom and use self-regulated strategies.

These findings emphasize that the quality of teacher-child relationships has a critical impact on children’s academic development and academic engagement in the classroom. Children who experience negative relationships with teachers are at greater risk for developing behavioral problems and refusing to engage in learning. In contrast, teachers who provide children with emotional support and are responsive to children’s emotional needs tend to show a higher level of awareness of children’s academic needs as well as concern for children’s interests, strengths, and views. As a result, it is vital
that teachers foster healthy relationships with children to decrease children’s risk factors and promote their academic success.

Researchers suggested that interventions focused on enhancing teacher-child relationships and training teachers to respond more appropriately to children’s social-emotional needs and problem behavior appear necessary in the school setting, particularly for young children identified as academically at-risk (Bennett & Bratton, 2011). Moreover, strengthening teacher-child relationships may direct children toward competent outcomes, facilitate teachers to better understand students’ needs and development, and ultimately create a break in the negativity of reciprocal relationship cycle (Adelman & Taylor, 2012; Gonzales, 2012; Helker & Ray, 2009; Pianta, 1999; Stulmaker, 2013; White et al., 2000).

In summary, teacher-child relationship research has shown that the teacher-child relationship has long-lasting effects on children’s development and success in schools (Rimm-Kaufman, 2011). The quality of the relationship is individualized to each dyad and dependent on the characteristics of the particular teacher and child involved (Ray, 2007). Children’s problematic behaviors may result in significant stressors for teachers and challenge teachers’ ability to provide children with emotional support; however, teachers’ responses to children’s behaviors may impact those same children’s psychological, social, and cognitive development as well as academic engagement and achievement (Baker, 2006; Pianta, 1999; Ray, 2007). As a result, it appears beneficial for teachers to receive professional training aimed at improving teacher-child relationships, managing students’ challenging behaviors, and responding to students’ emotional needs. In addition, providing teachers support and helping them develop
effective ways of communicating with children serve an important component in the training program to increase teachers’ confidence in managing children’s behaviors and emotional difficulties, reduce their teaching stress, and improve their overall job satisfaction (White et al., 1997).

Teachers especially seem to value children’s task-oriented skills, such as on-task behavior, and consider children behaving on-task as contributing to children’s academic readiness and future success (Rimm-Kaufman et al., 2000). Pianta et al. (2002) also found an association between children’s positive relationships with teachers and on-task behavior. As a result, mental health professionals have noted the importance of implementing professional development training programs focusing on enhancing teacher-child relationships and understanding children’s experience and needs (Lindo et al., 2014). Specifically, it is important to provide teachers with training programs from developmentally appropriate approaches, such as play-based teacher interventions, to facilitate improvements in teacher-child relationships and foster children’s learning and growth (Lindo et al., 2014).

Play as a Therapeutic Modality

Play has been viewed as the way children are able to communicate best and learn about themselves, others, and the world (Erickson, 1963; Landreth, 2012; Piaget, 1962; Ray, 2011; Vygotsky, 1966). According to Landreth (2012), play and activity are the natural mediums of communication for children. Hence, children communicate through spontaneous play rather than expressing themselves verbally because they feel more comfortable with play (Kottman, 2003; Landreth, 2012; Ray, 2011). Likewise, play is crucial to children’s development of emotional, cognitive, language, motor, and social skills (Carlson, Watts, & Maniaci, 2006; Landreth, 2012; Ray, 2011). The fundamental
importance of play to children’s healthy development is evident. Landreth (2012) indicated that children do not need to be taught how to play nor do they need to be shown how to play. Play is a spontaneous, enjoyable, voluntary, and non-goal-directed activity for children. Children play out their life experiences as a natural dynamic and self-healing process (Landreth, 2012). Schaefer (1993) noted that play has the power not only to facilitate normal development but also to reduce problematic behavior. Therefore, play seems to have the potential to improve challenging behavior in the classroom as well thereby having the potential to positively influence children’s academic experiences and quality of life.

Ray (2011) argued that play in therapy provides a variety of advantages for children. For instance, play provides fun to the therapeutic process, can decrease children’s resistance to the therapeutic relationship, and offers an expressive experience to children with several conflicts and struggles in daily life. The use of play allows children to express themselves symbolically while they work through their issues (Ray, 2011). Moreover, play promotes children’s communication with play therapists and enhances children’s social motivation and skill development (Ray, 2011).

Children can develop a sense of control and competency through play in the therapeutic process (Landreth, 2012; Ray, 2011). Children can use play therapy as a safe place for them to release energy and express themselves (Landreth, 2012; Ray, 2011). Schaefer (1993) described some of the values associated with play in therapy. For example, play therapy encourages children’s creativity and flexibility and provides children opportunities to develop problem-solving skills. Children can explore new behaviors and evaluate the consequences of behaving in new ways through role
playing. By using stories, artwork, or fantasy play, children can create new ways of understanding and develop additional alternative solutions (Schaefer, 1993). Children can reestablish feelings of secure attachment and benefit from the positive aspects of relationships through shared fun and fantasy play with play therapists. Play can help children enhance positive relationships with others as play therapists create a safe and nurturing environment for children by showing unconditional acceptance, warmth, and respect (Schaefer, 1993). Given the power of play and its potential benefit for children’s learning and development in schools, the application of play-based interventions in the school system may serve as an effective intervention for children who experience difficulties.

Play-based Interventions in the Schools

Play therapy has been successfully utilized in the school environment and researchers have indicated the effectiveness of school-based play therapy for children exhibiting a variety of presenting problems (Bratton, 2010; Ray et al., 2007). To increase children’s access to play therapy services in schools and to have the most positive impact on the mental health needs of young children, mental health professionals advocated for school-based play therapy services to address children’s social-emotional and academic needs (Bratton, 2010; Galassi, Griffin, & Akos, 2008). Due to the significance of the caregiver-child relationship, research findings have shown that the involvement of parents and other significant caregivers, especially teachers who trained and supervised by mental professionals in play-based interventions demonstrated a larger treatment effect size than play therapy interventions provided by mental health professionals (Bratton, 2010; Bratton et al., 2005; Landreth & Bratton, 2006).
Given that elementary-aged children have unique cognitive, social, and emotional development needs (Carlson, Dinkmeyer, & Johnson, 2008; White et al., 1999; White, Draper, Flynt, & Jones, 2000), involving teachers in children’s therapy process and providing teacher consultation is likely to be the most effective way to enable teachers to gain a better understanding of their students and to help students become successful learners in the school environment (Dinkmeyer & Carlson, 2006; White, Flynt, & Jones, 1999). Teachers are primary responsible for students’ achievement and behavior in the school environment, so they may use knowledge about students’ unique developmental needs to build positive teacher-child relationships and serve as therapeutic agents for their students’ growth (Carlson et al., 2008; White et al., 1999, 2000). As a result, counselors may consider training teachers to use play therapy skills and providing teacher consultation to enhance teacher-child relationship and optimize children’s social-emotional and academic development in classrooms.

Hamre and Pianta (2005) indicated that if students are to become successful learners in school, school interventions should focus on improving teacher-child relationships. Draper et al. (2001) specifically noted that teachers are significant adults in children’s lives, highlighting the importance of involving teachers in interventions focused on improving children’s social, emotional, and academic concerns. Hence, interventions designed to improve teacher-child relationships may improve children’s classroom behavior and strengthen their developmental competencies.

Based on the benefits of using play as a therapeutic modality and involving teachers in children’s process of learning and growing, various play-based interventions have been developed to help more children receive play therapy services throughout
preschools and elementary schools (Stulmaker, 2013). Play-based teacher interventions allow counselors to train teachers in basic play therapy skills and assist teachers in gaining awareness of children’s emotional needs. Moreover, these interventions aim at training teachers to utilize developmentally appropriate skills to facilitate children’s social, emotional and academic growth.

Teachers as Therapeutic Agents

In the 1960s, Guerney (1964) first developed filial therapy in an effort to focus on enhancing parent-child relationships through training parents to be therapeutic agents for their children. Filial therapy is a play-based counseling intervention grounded in the principles and philosophies of child-centered play therapy. Mental health professionals usually conduct filial therapy in a group format. The weekly group meetings provide parents didactic and dynamic elements that support parents’ abilities to learn basic child-centered play therapy skills, apply the skills with their children in one-on-one play sessions, process the parent-child play sessions, and share their stories about their relationships with and concerns about their children (Guerney, 1964). The goals of filial therapy are to help parents meet children’s psychological needs while strengthening the parent-child relationship, helping children communicate their needs, feelings, and thoughts, and increasing children’s self-esteem (Guerney, 1964).

Filial therapy has been regarded as an effective treatment modality for a wide range of families’ concerns (Coufal & Brock, 1979; Guerney, 2000; Guerney & Stover, 1971; Oxman, 1972; Stover & Guerney, 1967). For example, Stover and Guerney (1967) conducted filial therapy with 51 parents and children to examine the effectiveness of training parents to utilize child-centered play therapy skills with their
children aged 3 to 10 years. The results showed that after 12 to 18 months of training, children showed significant improvement in behavior and social adjustment. In addition, parents demonstrated an increase in empathic interactions with their emotionally disturbed children. Oxman (1972) extended Stover and Guerney's study by using a control group and found significant differences when comparing the treatment and control groups.

Guerney's filial therapy model required parents to attend the 2-hour group once a week for approximately six months. Landreth and Bratton (2006) reported that although filial therapy has been shown to be an effective parent-training model, the time commitment can be difficult for parents. Hence, Landreth and Bratton (2006) adapted the original filial therapy model into a 10 session child-parent relationship therapy (CPRT) protocol. In the CPRT model, parents learn child-centered play therapy skills and conduct weekly 30-minute play sessions with their children to attain the primary goal of strengthening the parent-child relationship. According to CPRT's theoretical foundation, the parent-child relationship serves as the primary vehicle for change. Hence, parents who provide warmth, affection, understanding, and unconditional positive regard to their children facilitate their children's growth and enable change for both children and parents alike (Landreth & Bratton, 2006).

Based on the initial positive outcomes of the filial therapy model, Bach (1968) suggested that teachers could benefit from learning filial therapy. Bach hypothesized that teachers could use play therapy techniques to facilitate improvements in children's emotional and behavioral problems and teachers' classroom management skills. Andronico and Guerney (1969) discussed the potential application of filial therapy to the
school setting. Given the significant amount of time that children spend with their teachers, Andronico and Guerney (1969) believed that teachers using the filial therapy approach would be better able to understand children’s behavior, effectively attend to children’s emotional needs in the classroom, and improve their classroom environments. Additionally, children would receive benefits similar to what they would receive in traditional mental health services through making emotional connections with teachers in the classroom, and as a result, children could increase their levels of self-esteem and self-responsibility (Andronico & Guerney, 1969).

Guerney and Fluman (1970) later proposed that in order to foster healthy teacher-child relationships and promote the social-emotional health of children in the classroom, counselors can train teachers to become therapeutic agents and provide them with supervision in the utilization of basic play therapy skills with children. Guerney and colleague (1970) trained 11 elementary school teachers in the filial therapy model for 20 weeks and provided supervision for teachers who each conducted 14 individual play sessions with withdrawn students. The results indicated that teachers could implement the play therapy skills effectively and accurately in the play sessions with their students (Guerney & Fluman, 1970). Moreover, all nine of the students in the treatment group showed consistent improvement in assertiveness.

Given the benefits of training teachers to be therapeutic agents for children, the idea of utilizing the filial therapy model with teachers has led to the creation of counseling-based professional development training models. Specifically, the models focus on implementing the philosophy of filial therapy and the principles of humanistic play therapy within school settings.
Play-based Professional Development Training Models

Although various theoretical orientations and different training structures serve as foundations for implementing the training models, the common elements in play-based professional development training models include the following: (a) training teachers to use basic humanistic play therapy skills, (b) allowing the child to lead the play sessions, and (c) adopting a non-evaluative and non-judgmental stance during the play sessions.

Kinder Training

Kinder training is a play-based professional development training model developed by White, Flynt, and Draper (1997). It is based on filial therapy (Guerney, 1964) and the theoretical constructs of individual psychology. Given the reported effectiveness of filial therapy, White et al. (1997) deemed the structure of filial therapy appropriate for application to teachers. They developed kinder therapy, later renamed kinder training.

Because many school counseling programs have successfully adopted Adlerian principles and techniques (Dinkmeyer, 1987), White et al. (1997) considered the application of individual psychology tenets helpful for teachers observing children’s characteristics and behaviors in order to gain a better understanding of how children perceive themselves and interact with others.

Theoretical Foundation. White et al. (1997) indicated that the basic tenets of individual psychology are confluent with fostering positive relationships between adults and children. Adler (1983) believed that children’s behaviors are purposeful and children possess the innate desire to strive for belonging and significance in their families, classrooms, communities, and other social groups. As children interpret their environments, they make early decisions regarding the predictable ways they Michael
behave to achieve their goals. Adler labeled this predictable pattern as \textit{lifestyle}. When children enter school, they approach school tasks from their unique lifestyles. Adler observed that individuals are socially embedded and create lifestyles based on perceptions about social interactions. Hence, children constantly observe and receive information regarding the relationships they encounter at school. To help teachers and children gain awareness of children’s mistaken goals of behavior, kinder training includes goal identification and disclosure in the playroom and the classroom (White et al., 1997, 2000).

Another fundamental concept of individual psychology is encouragement (Adler, 1983). Encouragement is essential for children to learn and to feel significant in classroom and school environments. Encouragement fosters children’s sense of significance and responsibility (Kottman, 2003). When children feel encouraged and achieve a sense of belonging and significance, they are more prone to cooperate in the classroom because they have empathy for others and display appropriate behaviors (Kottman, 2003). Adler (1983) described this regard for the welfare of group as well as one’s own needs as \textit{social interest}. Adler believed that a higher level of social interest represents good mental health.

Goals and Structure of Kinder Training. The goals of the kinder training model are for counselors to involve teachers directly in the intervention by training teachers to become play therapy agents as they improve their relationships with children (White et al., 2000). Kinder training is designed to enhance teachers’ ability to connect with children, help children make better adjustments to their classrooms, and ultimately
improve children’s academic and social skills as well as their relationships with teachers in the school environment (White et al., 2000).

White et al. (2000) outlined five basic steps for implementing kinder training in a school. First, the counselor conducts a 2-day workshop to train teachers in the basic principles of play therapy and Adlerian concepts. The structure of the workshop consists of didactic lecture, demonstration of individual play sessions, role play, and group discussion. After the in-service kinder training, the counselor schedules weekly teacher-directed play sessions with each teacher and a child of focus. Next, each teacher conducts a 30-minute individual play session with their child of focus once a week for six weeks. Teachers choose a target child based on concerns about the child’s social, emotional, or academic skills.

During each individual supervision session, the counselor provides the teacher with feedback in the form of education and retraining to improve the teacher-child relationship in the classroom as well as to prepare the teacher for the next individual play session with the child of focus. The counselor uses this time to discuss issues related to the teacher-child relationship and uses encouragement by addressing the teacher’s strengths and efforts as well as by providing a better understanding of the child. The counselor then connects Adlerian principles to the play therapy skills and assists teachers’ transfer of skills from the playroom to the classroom. Finally, the counselor provides follow-up sessions to support teachers who continue applying the model.

White et al. (2000) proposed a 2-day training followed by six individual play sessions. Given that various situations can take place in the school setting and teachers
may have different needs, White et al. (2000) also pointed out the possibility for counselors to adapt this model to various formats. For example, kinder training may be enacted in consultation with one teacher or a single day of training.

Research Support for Kinder Training. While research on the use of kinder training has been limited, the available studies provided evidence of the model's effectiveness (Draper, White, O'Shaughnessy, Flynt, & Jones, 2001; Draper, 2009; Edwards, Varjas, White, & Stokes, 2009; Solis, 2005; White et al., 1997; White, Flynt, & Jones 1999). For example, White et al. (1997) conducted a case study to illustrate the application of kinder therapy with a school counselor, a kindergarten teacher, and one Hispanic child struggling with issues of control and school anxiety. The application of kinder therapy with the school counselor-teacher-child triad improved the child's presenting problems (White et al., 1997). In addition, the school counselor reported having the ability to maximize her effectiveness by involving the teacher in the therapeutic process. The researchers concluded that mental health practitioners and school counselors could find the kinder training model helpful when working with discouraged teachers and children.

White, Flint, and Jones (1999) conducted a pilot study with six kindergarten teachers and children. Teachers received 1 day of training in basic play therapy skills and Adlerian principles and conducted six weekly supervised play sessions with a child of focus. White and colleagues utilized pre- and post-tests to evaluate the effects of kinder training on the teachers’ use of encouragement, limit-setting, and goal disclosure statements. They examined the teachers’ perceptions of the children’s levels of encouragement, language arts, math skills, social interactions, and behaviors. The
results indicated changes in teacher-child interactions in the classroom as evidenced by teachers’ triple increase in encouraging and goal-disclosure statements and double increase in logical consequences. The teachers’ use of ineffective verbal responses decreased by two thirds (White et al., 1999). Teachers perceived an increase in children’s positive social skills and a decrease in negative social behaviors, such as hyperactivity, aggressiveness, and attention-related behavior. Finally, all six children demonstrated improvements in math and language arts skills.

Draper et al. (2001) conducted a single-case design to examine the effects of kinder training on children’s behavior, social skills, and early literacy. The participants included kindergarten and first-grade teachers ($n = 14$) and their selected students ($n = 14$). Teachers received a 2-day training and conducted six play sessions. After completion of the training, teachers reported positive changes in their students’ classroom behaviors. Specifically, students demonstrated improvements in early literacy skills, increases in adaptive behaviors, and decreases in problem behavior. Independent raters also observed positive changes in teachers’ classroom behavior as teachers demonstrated increases in their numbers of encouragement, limit setting, and facilitative statements. Results suggested that kinder training is possibly an effective prevention or intervention program for improving students’ behavioral problems and enhancing teachers’ relationship-building techniques (Draper et al., 2001).

Draper et al. (2009) utilized a waitlist control group design to examine the effects of kinder training on teacher-child relationships with 60 preschool children and teachers. Teachers of preschoolers participated in a 1-day group training with weekly coaching and dyadic consultation. Teachers were asked to practice basic play therapy skills with
children in school settings. They reported that teachers perceived positive changes in children’s problem behaviors compared to children in the waitlist control group and concluded that the interventions represent possibly effective treatments for young children exhibiting a downward trend in their problematic behavior.

Edwards, Varjas, White, and Stokes (2009) utilized a qualitative approach to examine the acceptability, integrity, and effectiveness of kinder training for a group of elementary school teachers. The researchers interviewed five teachers who participated in kinder training. The teachers reported improved classroom management skills, student classroom behavior, and teacher-child relationships. Additionally, the teachers not only demonstrated an understanding of the training content, such as tracking, empathy, encouragement, and limit-setting but also reported a positive view of the training structure. Teachers perceived kinder training to be an effective training model and observed its positive impact on their communication skills, the quality of their teacher-student relationships, classroom management skills, and improving students’ behaviors.

The kinder training studies conducted to date involved showing increases in teachers’ facilitative statements, encouragement, and effective limit-setting (Draper et al., 2001; White et al., 1999), improved confidence in teaching (Solis, 2005), and awareness of children’s needs (Solis, 2005). Students also improved their social skills, enhanced their self-esteem, and reduced their problem behaviors (Draper et al., 2001; Edwards et al., 2009; White et al., 1997, 1999). Consequently, kinder training appears to be a play-based teacher consultation model that systematically addresses teacher-child relationships, children’s cognitive and social development, children’s lifestyle,
children’s social-emotional and behavioral issues, as well as teachers’ classroom management skills.

Child-Teacher Relationship Training (CTRT)


CTRT is divided into three phases based on the classroom setting, school schedule, and teacher in-service training schedule (Helker & Ray, 2009). The first phase of treatment consists of an intensive 2.5 day training session conducted by a CTRT trained therapist prior to the beginning of the school year. Teachers are typically taught child-centered play therapy skills, such as reflective listening, reflection of child’s feelings, therapeutic limit setting, and structure of weekly play sessions (Helker & Ray, 2009). During CTRT Phase I, teachers choose a child of focus from their classrooms based on teachers’ concerns of children’s emotional or behavioral challenges and conduct weekly 30-minute videotaped play sessions for 7 weeks to practice the CTRT
skills (Helker & Ray, 2009). Teachers then participate in a weekly supervision group led by CTRT therapists to discuss the videotaped play sessions and the training content. At the end of the 7 weeks of play sessions and training/supervision, teachers begin the second phase of training.

Phase II lasts for 10 weeks with an emphasis on generalizing CTRT skills to the classroom environment. In this phase, teachers conduct child teacher relationship time (CTR Time) three times per week. This involves a 30-minute time slot based on teachers' daily schedules. CTR time usually takes place when children participate in small groups during center time or other unstructured classroom periods. The CTRT therapists initially model the use of CTRT skills with a small group of children in the classroom. Gradually, the teachers play a more active role and the CTRT therapists provide coaching that enables teachers to continue practicing CTRT skills with different groups of children so that teachers can build relationships with all children in their classrooms. Teachers and CTRT therapists continue weekly training and supervision groups over the course of CTRT Phase II to discuss challenges of implementing CTRT skills with small groups of children in the classroom. Teachers are taught encouragement and self-esteem building responses during this phase (Helker & Ray, 2009).

Phase III is the 10-week follow-up period after the completion of CTRT Phase I and II. Teachers neither participate in training/supervision nor contact CTRT therapists during this phase. Teachers are asked to assess children’s behaviors, their own changes, and their overall classroom environments after the end of Phase III (Helker & Ray, 2009).
Helker and Ray (2009) and in a companion study, Morrison and Bratton (2010) conducted preliminary studies of CTRT with the Head Start population. Helker and Ray (2009) examined the effectiveness of CTRT on 12 teachers’ and classroom aides’ use of relationship-building skills in their classrooms and on 19 students’ classroom behaviors. The results showed that teachers learned and maintained CTRT skills through Phase III. Children who were scored in the borderline or clinical range on at least one syndrome scale on the Caregiver-Teacher Report Form (C-TRF; Achenbach & Rescorla, 2000) demonstrated improvement to their externalizing problems after participating in CTRT; moreover, children’s decreases in externalizing problems correlated with teachers’ frequent use of relationship-building skills.

In a companion study, Morrison and Bratton (2010) examined the effect of CTRT on 11 children scoring in the borderline or clinical range on at least one syndrome scale on the C-TRF prior to the intervention. The researchers found that children who participated in CTRT demonstrated improvements in their externalizing behavior problems and total problems. The results showed CTRT to be an effective teacher-intervention model with the Head Start population (Morrison & Bratton, 2010).

Sepulveda, Garza, and Morrison (2011) conducted a qualitative study to explore 10 Head Start teachers’ perceptions about participating in CTRT after completion of Phase I and II. Overall teachers had a positive experience with CTRT and perceived a strengthened relationship with their children of focus as well as improvements to these children’s behaviors. In addition, teachers reported feeling increased confidence with classroom management.
Gonzales (2012) conducted an exploratory study to examine the effectiveness of CTRT with 20 at-risk preschool children in Head Start exhibiting disruptive behavior. The results showed that children whose teachers received the CTRT intervention demonstrated a statistically significant decrease in externalizing behavior on the Caregiver-Teacher Report Form (C-TRF) and total problems on the Direct Observation Form (DOF) from pre- to mid- to post-test. The results indicated that CTRT was an effective intervention for at-risk preschool children exhibiting disruptive classroom behavior (Gonzales, 2012). Gonzales further suggested that CTRT may serve as an early mental health intervention for at-risk populations.

To explore the impact of CTRC on teacher’s ability to provide students emotional support in the classroom, teachers’ use of relationship-building skills, and teachers’ level of stress, Pronchenko-Jain (2012) conducted CTRT with 11 Head Start teachers/aids and 8 children. The results revealed that CTRT demonstrated large effects over time on the Classroom Assessment Scoring System (CLASS) and the Child Teacher Relationship Skills Checklist (CTRT-SC). The findings provided support for CTRT as an effective intervention for increasing teachers’ ability to provide at-risk students emotional and relational support in the classroom.

Relationship Enhancement for Learner and Teacher (RELATe)

Similar to CTRT, relationship enhancement for learner and teacher (RELATe) therapy is an adaptation of Landreth’s (2002) CPRT model; it engages the principles of child-centered play therapy to train elementary school teachers. The primary goal of RELATe is to facilitate increases in teachers’ interpersonal skills in order to strengthen their relationships with children. RELATe training takes place in a 3-6 hours class consisting of lectures, video demonstration, role-play, and live practice with children.
Teachers are taught basic child-centered play therapy skills by trained play therapists. The therapeutic skills include tracking, reflecting feelings, returning responsibility, limit setting, and choice giving (Ray, Muro, & Schumann, 2004).

As part of conducting RELATE training and based on teachers’ concerns for children’s emotional or behavioral difficulties, teachers choose a child of focus from the classroom for weekly 20-minute play sessions. After each play session, RELATE therapists provide approximately 10 minutes of feedback to teachers as they discuss play session progress. Ray et al. (2004) decreased the educational training time of RELATE to incorporate one-on-one live supervision and suggested that training can be implemented by a single school counselor to increase applicability in elementary schools.

Ray et al. (2004) conducted a pilot study to examine the effectiveness of RELATE using volunteer teachers. They found that teachers considered the model beneficial and rewarding for them and the child of focus. The teacher participants reported gaining an awareness of the differences in their teaching and communication styles and becoming more nondirective when interacting with children. Teachers reported increases in their self-awareness, the development of new perceptions of children, and their sensitivity to children.

Carlson (2011) conducted a single-case design study to examine the effectiveness of RELATE on elementary school teachers’ interpersonal skills with students in the classroom and their relationships with students. Participants included eight teachers. The results demonstrated overall positive effects; 5 out of 8 teachers
showed increases in responsiveness and all teachers decreased their level of criticism. In addition, 5 out 8 teachers indicated positive changes in teacher-child relationships.

**Teacher-Child Relationship Building (TCRB)**

Teacher-child relationship building (TCRB) is a play-based professional development model adapted from kinder training (White et al., 1997) and filial therapy (Guerney, 1964) with a goal to use teacher-child relationships to promote teachers’ and children’s positive outcomes (Lindo et al., 2014). TCRB is designed to strengthen teacher-child relationships, improve students' behaviors, enhance students' academic involvement, and develop teachers’ classroom management skills (Lindo et al., 2014). TCRB includes the two major training modules of play session training and supervision and classroom training. The primary goal for the first module is to help the teacher develop a relationship with an identified student through practicing child-centered play therapy skills. During the second module, the counselor then helps the teacher transfer child-centered play therapy skills into the classroom. The second module is designed to assist teachers’ development of a healthy classroom climate, improvement with all teacher-student relationships, and development of classroom management skills.

During the first module, trainers conduct a 2-day in-service training that involves lecture, group discussion, videotapes, and role-plays. Teachers learn basic child-centered play therapy skills and child development concepts. After the 2-day training, teachers conduct four weekly 30-minute play sessions with identified children. Trainers then provide approximately 15 minutes of supervision to discuss feedback regarding the teachers’ skill demonstrations and personal awareness and to facilitate how teachers can make connections between children’s playroom and classroom behaviors. During
the second module, trainers provide four weekly classroom training sessions during a 30-minute informal instruction period. During this time trainers model the application of child-centered play therapy skills in the classroom, and teachers receive opportunities to practice child-centered play therapy skills in classroom situations under their trainers’ direct supervision.

Lindo et al. (2014) conducted a phenomenological study with 18 early education teachers exploring their perceptions of the initial implementation of TCRB. They examined acceptability and perceived effectiveness as well as teachers’ perceptions of the content and structure of the TCRB model. Teachers considered TCRB informative, well organized, and structured (Lindo et al., 2014). Teachers also believed TCRB was effective in enhancing teacher-child relationships, developing classroom management skills, and reducing children’s behavioral problems (Lindo et al., 2014).

The above overview presented examples of play-based professional development training models designed for implementation with young children by teachers in early childhood centers or elementary schools. Additionally, CTRT, RELATe, and TCRB incorporate child-centered play therapy principles with an emphasis on understanding children’s feelings, experience, and needs through play behavior and using the teacher-child relationship as the therapeutic factor to facilitate children’s growth and development.

To date, kinder training is the only professional development training model based on Adlerian principles that uses relationships for attaining a holistic understanding of children as part of facilitating change. Moreover, kinder training allows
counselors to adapt the model to various situations based on school settings and teachers’ needs that can become more applicable for teachers and counselors. It is worth noting that teachers seem to feel most challenged by children’s problematic behavior in the classroom, and one of the most common reasons for student referral is off-task classroom behavior (Roberts, 2011). Although off-task behavior has been linked to negative impacts on children’s learning, Roberts noted that children might use off-task behavior for the purpose of gaining access to more preferred activities, such as seeking adult or peer attentions, or the off-task behavior might help children avoid doing undesirable and challenging learning activities. Sabourin et al. (2011) also indicated that some children may use off-task behavior as a coping mechanism to regulate their negative emotions or to recharge their motivation to participate in learning activities.

In order to help teachers and children establish an awareness of children’s mistaken goals of behavior, kinder training includes goal identification in the playroom and the classroom (White et al., 1997, 2000). Counselors introduce general mistaken goals of children’s misbehavior and educate teachers the importance of understanding the meanings and purposes of children’s behavior. Hence, teachers who understand the goals behind children’s off-task behavior and emotional needs may increase their awareness of children’s different needs. This can assist teachers in developing effective ways to respond to children’s off-task behavior. The review of literature revealed no research studies examining the impact of kinder training on early elementary school children’s on-task classroom behavior. Hence, I hypothesized that kinder training enhances teachers’ relationships with children and ultimately improves children’s on-task behavior in the classroom.
Rationale for Using Single-Case Design

There is a growing urgency for counseling to be evidence based (Sharpley, 2007). According to the American Psychological Association (APA), single-case designs meet the necessary standards for rigorous research methodology. With a concentration in single-case designs in counseling research studies, it may provide a practical solution for generating evidence-based research (Ray, Barrio Minton, Schottelkorb, & Brown, 2010).

Members of the APA have recommended that practitioners utilize single-case research designs to determine what mental health interventions are evidence-based. Although single-case research design is a widely accepted methodology to determine effective, evidence-based approaches to counseling, Sharpley (2007) found that only 1.02% of articles published in the Journal of Counseling and Development from 1982 to 2002 utilized a single-case research design. Lundervold and Belwood (2000) encouraged counselors to utilize single-case design methodology to provide evidence of the effectiveness of various counseling approaches, thereby competing with the current trend of evidence-based mental health studies. In fact, single-case designs provide an effective alternative to large group designs and allow for flexibility to meet the individual needs of participants (Morgan & Morgan, 2009).

Morgan and Morgan (2003) indicated that single-case design is the best type of research to use when researchers try to explain individual behavioral changes as part of examining counseling interventions because experimental single-case designs can not only demonstrate causal relationships but also rule out threats to validity. Specifically, researchers can make inferences about treatment effectiveness in single-case designs.
through comparison of different treatment conditions over time for the same individual participant (Kazdin, 2003).

Single-case design is often known as $n = 1$, single-subject, the small $n$ design, or the time-series design (Morgan & Morgan, 2009). Single-case designs use the results from a single participant or subject to establish the existence of cause-and-effect relationships. It is a type of experimental research utilized to demonstrate experimental control within a single case, which can be an individual person, a system, or a group of individuals (Morgan & Morgan, 2009). Even though multiple participants may be involved, instead of comparing the differences among the individuals, the individuals are compared only with themselves (Kazdin, 2003; Morgan & Morgan, 2009).

According to Kazdin (2003), single-case design includes the four necessary features of continuous assessment, baseline assessment, stability of performance, and the use of different treatment phases. A distinguishing feature of the single-case design includes conducting repeated observations of the participant’s behavior over time. This continuous assessment process typically occurs before and during the intervention to allow researchers to assess a participant’s change. Kazdin (2003) recommended that these observations should occur multiple times each week at a minimum but could take place on a daily basis.

The baseline assessment is a phase during which the researchers do not provide an intervention. During the baseline, researchers observe and define a pre-intervention level of performance to obtain information about the extent of the identified problem and a source of data to compare with the treatment phase data (Kazdin, 2003). Without establishing the baseline phase, researchers may be unable to determine the
effectiveness of a treatment. Thus, the baseline phase is especially important in the evaluation of its properties, during which researchers assess the third essential feature, the stability of performance (Kazdin, 2003). Researchers assess the variability and slope of the data during the baseline and treatment phases to determine the researchers’ abilities to make conclusions based on the data.

Regarding the types of single-case designs, Kazdin (1982) discussed the three primary types of single case designs of case study, pre-experimental, and experimental designs. Kazdin (1982) stated that a design qualifies as an experiment based on the extent to which it can control for threats to internal validity, such as the history and maturation of the individual participant, changes in instrumentation, and the effects of repeated testing. Pre-experiments demonstrate more interval validity due to having more controls for threats. Kazdin (1982) reported that studies are considered pre-experimental or experimental when researchers gain objective information through assessment, when they assess an individual’s performance over time, and when they can demonstrate stable levels of an individual’s performance before and/or after the intervention.

In terms of the analysis of single-case design data, researchers assess single case data primarily through visual analysis (Morgan & Morgan, 2003). In visual analysis, researchers graph and compare all of the data points for each of the specific phases. Kennedy (2005) suggested that researchers should examine the level, trend, and variability of the data within each phase. The level of each phase is its mean. The trend is the slope, or incline, and magnitude, or degree of the slope, of the data within each phase. The variability indicates the fluctuation in the subject’s performance over time.
primary evaluation tool until statisticians develop appropriate statistics to use with single-case design research.

In summary, single-case design is a type of experimental research methodology employing the individual case as its experimental control (Kennedy, 2005; Morgan & Morgan, 2009). The single-case design provides researchers with an effective alternative to large group designs and allows for flexibility to meet the individual needs of participants (Morgan & Morgan, 2003, 2009). Although single-case designs are widely accepted by researchers as useful for determining evidence-based practice, the outcome studies indicated that few researchers use single-case designs to address the efficacy of counseling interventions. Morgan and Morgan (2003) indicated that single-case design is the best type of research to explain individual behavior change. To achieve the purpose of this research study, I examined the impact of kinder training on children’s on-task behavior in the classroom. As a result, I utilized the single-case design specifically to explore the effect of individual kinder training on a target child’s on-task behavior. In sum, I sought to establish the play therapy intervention as an empirically supported treatment.
APPENDIX B

EXTENDED METHODOLOGY
The purpose of the study was to investigate the impact of kinder training on children’s on-task behavior. Specifically I utilized an experimental single-case methodology and a multiple baseline across subjects design to examine the impact of kinder training on young children’s on-task behavior in the classroom. The proposed methodology is outlined below, including the research question, selection of participants, instrumentation, treatment procedures, data collection, and data analysis.

Research Question

The research question for this study was: What is the impact of kinder training on early elementary school children’s on-task behavior in the classroom?

Definition of Terms

Kinder Training

Kinder training was operationalized by using the definition and manual provided by White, Draper, Flynt, and Jones (2000):

Kinder training is a school counselor and teacher consultation model through which teachers are taught to use non-directive play therapy techniques and Adlerian principles with a child in a play setting. The essence of kinder training is to create an opportunity for the teacher and the child to make a meaningful connection on an emotional level that Michael change their relationship, the child’s behavior, and the teacher’s behavior outside the playroom. (pp. 10-11)

Child’s On-task and Off-task Behavior

In accordance with the definition of on-task behavior on the Direct Observation Form manual (DOF; McConaughy & Achenbach, 2009), a child is “on-task if he/she is doing what is expected in that situation” (p. 12). “The child should be on-task for the majority of the 5-second intervals” (McConaughy & Achenbach, 2009, p. 12). On-task
behavior is conduct that is appropriate to the situation such as listening to the teacher’s directions, reading a book, working on an assigned task, listening to others in circle time, etc.

In accordance with the definition of on-task behavior in the DOF manual (McConaughy & Achenbach, 2009), “if the child is not on-task for the majority of the 5-second intervals, rate the child as off-task” (p. 12). For example, off-task behavior is not appropriate to the situation such as doodling, looking around the room, playing with other objects, and talking to another student when instructed to listen to the teacher or work on an assigned task.

For the purpose of this study, on-task behavior in the classroom was operationalized by the on-task scale score provided on the DOF by the independent observers.

Participants

Research participants included three teachers and three children enrolled in kindergarten and first grade recruited from two elementary schools in a suburban school district in the southwestern region of the United States. At the beginning of the study, I recruited four teachers and four children from two elementary schools. However, during the baseline phase of the study, one teacher withdrew. A total of three teachers and three children participated in the study over the duration of the baseline and intervention phase.

Teacher participants met the following criteria: (a) expressed a desire to apply a new approach to improve students’ off-task behavior and (b) had not received any play-based professional development training. Qualified child participants were based on the following criteria (a) not labeled with significant cognitive delay as determined by special
classroom placement, (b) spoke English, (c) had not received counseling services such as play therapy, and (d) were referred by teacher participants based on their perceptions of frequently exhibiting off-task behavior in the classroom.

I gained human subjects approval by the University of North Texas Institutional Review Board (IRB) prior to the start of the study. Teacher participants gave informed consent to receive individual kinder training, participate in a pre and post interview, conduct video-recorded teacher-directed play sessions, and participate in video-recorded supervision sessions. Parents or legal guardians also provided informed consent for child participants to take part in an intervention where they would be observed in the classroom and video recorded in teacher-directed play sessions.

Individual background information for each teacher and child participant is listed below under pseudonyms.

Teacher Participant 1

*Background information.* Mrs. Bernard was a 36-year-old Caucasian female. She obtained a bachelor degree from a public university in the southwestern United States, and taught both middle and elementary school for a total of 12 years. At the time of the intervention, she was teaching first grade and had been teaching at the intervention site for six years. Mrs. Bernard reported that she did not receive any play-based intervention training. However, because her son was receiving play therapy services, she believed there to be numerous benefits of play therapy for children’s presenting problems. Mrs. Bernard chose to conduct play sessions with Sarah, a 6-year-old Caucasian female enrolled in her class. At the time of the pre interview, Mrs. Bernard had known Sarah for two months.
Child Participant 1

*Background information.* Sarah was a 6-year-old Caucasian female enrolled in Mrs. Bernard’s class. Sarah qualified for this study because Mrs. Bernard considered her as one of the most off-task students in her classroom. Sarah had been raised by her aunt since she was a baby and resided with her aunt and her aunt’s two daughters who are both older than Sarah is. Mrs. Bernard reported that Sarah did well academically when she was on-task; however, her on-task behavior had been inconsistent. According to Mrs. Bernard, Sarah frequently exhibited off-task behavior on an average of 3 days a week and when she was off-task, it could last for the whole day. When Sarah was on-task, she could complete a task accurately and fast. However, when she was off-task, she did not seem to listen to the teacher’s instructions for class activities and would fail to complete the assignments. Moreover, her off-task behavior sometimes affected her peers’ attention and participation in class as well. Mrs. Bernard further reported that Sarah frequently did not finish her homework, so Mrs. Bernard was unsure if Sarah got sufficient support at home.

Regarding Sarah’s relationship with Mrs. Bernard and peers, Mrs. Bernard reported that Sarah’s connection to her teacher and peers was inconsistent and often depended on her emotional state. According to Mrs. Bernard, when Sarah was happy, she appeared more willing to interact with her teacher and peers and to participate in class activities. Mrs. Bernard also observed that when she attempted to remind Sarah to stay on-task, Sarah seemed to withdraw.

Mrs. Bernard has tried various ways to manage Sarah’s off-task behavior, including asking her to sit by herself to finish the task, giving her reminders, and
providing her one on one attention by asking her to sit near the teacher’s table.

However, Mrs. Bernard found these methods did not seem to improve Sarah’s on-task behavior and seemed to have a negative impact on Sarah’s self-esteem. Mrs. Bernard expressed her eagerness to gain a better understanding of the underlying reasons for Sarah’s off-task behavior and to learn effective ways to enhance Sarah’s on-task behavior.

Teacher Participant 2

*Background information.* Mrs. Arnold was a 38-year-old Hispanic female who received a graduate degree in education from a public university in the western United States, and taught first grade and kindergarten for a combined total of seven years. Mrs. Arnold was also a Montessori certified teacher, and at the time of the intervention, was teaching a kindergarten dual language class. Mrs. Arnold reported that she had learned some psychotherapeutic techniques in child psychology during her undergraduate studies. However, she did not receive any play-based intervention training. Mrs. Arnold chose to conduct play sessions with Jason, a 5-year-old bi-racial male enrolled in her class. At the time of the pre-interview, Mrs. Arnold had known Jason for two months.

Child Participant 2

*Background information.* Jason was a 5-year-old bi-racial male enrolled in Mrs. Arnold’s class. Jason qualified for this study because Mrs. Arnold was concerned about his frequent off-task behavior in the classroom. Mrs. Arnold reported that Jason had been academically behind since the beginning of kindergarten. She further described Jason as having difficulty in understanding the teacher’s instructions and paying attention to her. According to Mrs. Arnold, when she tried to explain things to Jason, he
would show a blank expression. Mrs. Arnold further stated her concern that Jason may be dyslexic and that may be negatively affecting his academic engagement and on-task behavior.

Mrs. Arnold reported that Jason lived with his biological parents and two younger brothers. One of his brothers had been frequently sick, so Jason’s mother spent a significant amount of time taking care of Jason’s younger brother. Hence, Jason’s mother may have had limited time to provide Jason the attention that he wanted or needed. Mrs. Arnold observed that during class time Jason enjoyed cutting paper into pieces and making paper constructions. When Mrs. Arnold attempted to take Jason’s paper away, he would become upset and hold on to the paper. Additionally, according to Mrs. Arnold's report, Jason seemed to have difficulty learning and retaining new information, especially when the lesson was taught in a large group setting. When Mrs. Arnold taught in small groups, she was able to give Jason more attention. However, Jason still appeared to struggle with staying on-task and retaining lesson material.

Mrs. Arnold stated that she and Jason have started building a relationship. At the beginning of school year, when Mrs. Arnold talked to Jason, he would avoid eye contact with her, and would not approach her to engage in conversation. According to Mrs. Arnold, prior to the start of the intervention, Jason appeared to feel more comfortable with engaging with her.

Mrs. Arnold reported that she has tried to determine Jason’s learning style and has utilized various teaching strategies, including technology integration and manipulatives to help Jason learn and stay on-task. Mrs. Arnold reported that during
class time, she would initially observe Jason’s behavior, and if he were unable to stay focused, she would approach, and give him reminders and redirection.

Teacher Participant 3

*Background information.* Ms. Cook was a 37-year-old Caucasian female who received a bachelor degree from a public university in the southwestern United States. She also received special education certification (EC-12) and the generalist accreditation (EC-6). At the time of the intervention, Ms. Cook was a kindergarten teacher in her first year of teaching. Ms. Cook reported not receiving any play-based professional development training. She chose to conduct play sessions with Michael, a 5-year-old Caucasian male enrolled in her class. At the time of the pre-interview, Ms. Cook had known Michael for two months.

Child Participant 3

*Background information.* Michael was a 5-year-old Caucasian male enrolled in Ms. Cook’s class. Michael qualified for this study because Ms. Cook reported that he frequently had difficulty focusing and staying on-task. Michael lived with his biological parents and two younger brothers. Michael did not seem to get much attention from his parents because his father was in the military and his mother recently had a baby. At the time of the intervention, Michael’s mother had been staying at home to take care of her three children.

Ms. Cook reported that Michael would participate in class activities if he was interested in the topic. Overall, Michael easily got distracted and had difficulty starting and completing tasks. According to Ms. Cook, Michael tended to be very quiet, and did
not initiate communication or engage with her in conversation often. As such, Ms. Cook perceived that Michael was not very connected to her.

Instrumentation

Direct Observation Form (DOF)

The DOF (McConaughy & Achenbach, 2009) is an instrument used to assess preschool to fifth grade children’s behavior in the classroom, at recess, and in other group settings during a 10-minute segment of time. During a 10-minute period of time, a trained observer rates an identified child’s on-task and off-task behaviors and writes a description of the child’s behavior at 1-minute intervals. After each 10-minute observation, the observer immediately completes 89 problem items. Each observation is based on a rating of 0 (behavior not observed), 1 (very slight occurrence), 2 (definite occurrence with mild to moderate intensity and lasting less than 3 minutes total duration), and 3 (definite occurrence with severe intensity or occurrence lasting more than 3 minutes in duration). The DOF procedures require a minimum of two and a maximum of six separate 10-minute observations of the child to obtain an average score computed by the DOF scoring software. Because of the variability of the child’s behavior, McConaughy and Achenbach recommended 3 to 6 separate observations on at least 2 different days.

DOF provides scores for the total problems scale, the on-task scale, and the six syndrome subscales of withdrawn/inattentive, nervous/obsessive, depressed, hyperactive/attention, demanding, and aggressive. The 2009 edition of DOF was validated and normed based on ethnically diverse samples of 661 children between the ages of 6 to 11 years for classroom observations and 224 children for recess observations (McConaughy & Achenbach, 2009). The mean r of inter-rater reliability for
classroom observations was calculated as .88 for the total problems score and as .97 for on-task/off-task score. The generally accepted level of inter-observer agreement (IOA) for classroom observations for good agreement on discreet behavior is 80% to 90%. McConaughy and Achenbach (2009) reported that content validity and criterion-related validity of the DOF were evaluated and established. Additionally, researchers can use the DOF separately or in combination with the Child Behavior Checklist (CBCL; Achenbach, 2001) and/or Caregiver-Teacher Report Form (C-TRF; Achenbach & Rescorla, 2001; McConaughy & Achenbach, 2009).

Qualified observers may be paraprofessionals, such as teachers’ aides, undergraduate or graduate students, and research assistants as well as professionals in education, clinical psychology, school psychology, and related disciplines. Observers should have some knowledge of child development and behavior and of the methodology of behavioral assessment. Observers should be under the supervision of a qualified professional who has knowledge of the theory and methodology of standard assessment (McConaughy & Achenbach, 2009).

DOF provides scores for on- and off-task behaviors, internalizing and externalizing behaviors, total problems, and six syndrome scales. Based on my research question, only the on-task scale scores of the DOF were analyzed in the study. For the purposes of this study, two blind observers conducted the DOF observations three times per week during the baseline and treatment phases. The observers completed and recorded observations of participating children as well as children not included in the study. Therefore, the trained observers were blinded to the children’s treatment status.
To establish the inter-rater reliability for on-task ratings, I assessed two observers' inter-observer agreement (IOA) on practice cases by using the “Percent Agreement Index” (Hintze, 2005) based on the recommendation of McConaughy and Achenbach (2009). The generally accepted level of mean IOA for good agreement on discreet behavior is 80% to 90% (Hintze, 2005). In this study, the mean IOA for on-task reached 86%, which was within acceptable levels for agreement.

Procedures

I utilized an experimental single-case methodology for this study. The design was a multiple baseline across subject. I gained human subjects approval from the University of North Texas Institutional Review Board (IRB) prior to the start of the study. Once I had approval, I invited teachers from two elementary schools to participate in the kinder training. The assistant superintendent and principals had agreed to allow the research team to openly recruit teachers at a professional development meeting during the fall semester. The recruitment involved making a presentation to a large group of teachers, explaining the voluntary nature of participating in the study, and providing informational fliers for teachers and parents. Because the kinder training intervention required teachers to conduct one-on-one play sessions with target students, I obtained parental consent for children’s participation during informed consent procedures. After the teacher participants were recruited, parents and legal guardians received and signed informed consent and assent form for child participants prior to the start of the study.

Data for each teacher and child participant was collected and analyzed separately to understand the unique changes in the individual child. To gather detailed demographic and background information of teacher participants, each teacher
participant completed a teacher demographic form (Appendix F) and participated in an individual semi-structured pre-intervention interview (Appendix G).

After the individual teacher interviews, the collection of baseline data from all child participants began. During the baseline phase of measurement, teacher participants did not receive kinder training and child participants did not engage in play sessions. Trained DOF observers observed the child participants’ on-task and off-task behaviors three times per week to obtain an average on-task score based on the recommendation of McConaughy and Achenbach (2009). Kennedy (2005) suggested using a minimum of three data points for the baseline phase of measurement. Hence, for this study, the baseline phase continued for a minimum of 3 weeks in order to gain an average data point for each child participant. The baseline phase extended beyond three data points if a stable baseline was not achieved and continued until a stable baseline was evident. Given the nature of multiple baseline design, the length of the baseline phase was unequal across child participants, and the intervention began at different times for each teacher and child participant. That is, after the baseline of the first child participant was established, the teacher and child participant began participating in treatment while the trained DOF observers continued collecting baseline data for the remaining child participants until baseline data for all child participants were established. The DOF was completed throughout baseline and treatment phases. To increase reliable interpretations of the stability in the baseline and treatment phase, I consulted with two supervising faculty members to determine the stability and completion of the baseline and treatment phase.
After completion of the baseline phase of data collection, I provided each teacher participant with 1 day of individual kinder training. Next, the teacher and child participant engaged in once-a-week, 30-minute teacher-directed play sessions for at least six weeks. I conducted weekly individual supervision meetings with each teacher to discuss the child’s progress, the teacher’s reactions to the play sessions, and assist the teacher in connecting the child’s behavior in the playroom with the classroom behavior. Trained DOF observers continued observing each child’s on-task and off-task behavior in the classroom three times per week.

After the treatment phase was completed, each teacher participated in an individual post-intervention interview (Appendix H). The interview allowed for gathering information about teachers’ experiences with kinder training as well as perceived changes in the participating child’s behavior. Hence, in addition to analyzing the child participant’s on and off-task behavior results from DOF, I also included the pre and post interview data for interpreting additional factors that potentially contributed to the child participant’s behavioral change during the treatment phase.

Table 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>Baseline Number of Weeks</th>
<th>Baseline Number of Sessions</th>
<th>Treatment Number of Weeks</th>
<th>Treatment Number of Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason</td>
<td>5</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael</td>
<td>6</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Kinder Training Intervention

The kinder training intervention involved individual teacher participant training, weekly teacher-directed play sessions, and weekly observation of child participants’ on-task behavior.

Research Team

The research team was comprised of me, the primary researcher, a faculty member, and two DOF observers. I have completed 3 years of doctoral work in counseling, 12 hours of graduate-level coursework in play therapy, and have conducted play therapy and clinical supervision. I served as the teacher participants’ kinder training facilitator and supervisor.

The faculty member is an associate professor who has conducted numerous research studies related to play therapy and teacher-child relationship building, and has experience in conducting play therapy and school-based interventions as well as supervising play therapists. The faculty member served as a clinical supervisor and provided me with direct supervision.

One of the DOF observers has completed two years of a master’s program in counseling and 3 hours of graduate-level coursework in play therapy and has practiced play therapy skills with children. The other DOF observer is a master’s student in the counseling program, has completed 3 hours of undergraduate-level course work in therapeutic play, and has practiced play therapy skills with children. Under my supervision, the two DOF observers conducted weekly direct classroom observations to measure child participants’ on-task behavior under my supervision.
In-service Kinder Training

Each teacher participant received individual kinder training following the protocol outlined in the kinder training manual (White et al., 2000). According to the format outlined in the manual, the in-service training consisted of lectures, discussions, videotapes, live demonstration, and role-plays. The individualized format was tailored to meet each teacher’s individual needs, and the average training period was 3.5 hours.

The first part of kinder training consisted of both experiential and didactic components, including a review of child development, concepts fundamental to individual psychology (Adler, 1983; Dreikurs, 1968), play principles, and play techniques. The teacher participants were taught the play techniques of tracking, encouragement, empathy, and limit setting and learned to use them as basic guidelines to facilitate play sessions with their students. The second part of the training included the teacher practicing the newly learned play language and skills in a playroom setting.

Kinder Training Play Sessions

After the individual training, the teacher participant conducted one 30-minute individual play session per week with the identified student for a minimum of 6 consecutive weeks until the stability of the treatment phase was established. Each play session was video recorded for supervision purposes. I worked with the teacher individually throughout the play session and supervision process.

Supervision of Teachers

After each play session, I immediately provided the teacher participants individual supervision for approximately 20 minutes based on the kinder training supervision guidelines. Each supervision session was video recorded to allow teachers and me the opportunity to review session activities. I processed teachers’ reactions to
the play session and focused on any new insights that teachers developed about the child and themselves as a result of the play sessions. I listened for teachers’ comments that indicated connections between play session and classroom contexts. I further assisted teachers in transferring kinder training language and skills to the classroom by helping them understand how to make modifications as necessary. For example, I assisted teachers in incorporating tracking, reflection of feelings, encouragement, and limit setting skills into normal interactions with students in the classroom.

Playroom and Materials

Each elementary school had one playroom. Ray (2011) indicated that the size of the playroom must allow enough space for children to move freely. Landreth (2012) suggested that an ideal playroom be 12 feet by 15 feet. Due to limited space in the school setting, each playroom was approximately 5 feet by 6 feet and included shelves for storing toys, a puppet theater, and a sandbox. Each playroom was equipped with a camera to record all play sessions.

It is important that toys and materials for the playroom be developmentally appropriate and purposefully selected to allow children to express themselves in ways that feel comfortable and natural to them (Landreth, 2012). When selecting toys and materials for the playroom, play therapists should ensure that each toy has a therapeutic purpose, helps children express themselves, and helps the therapist and child build a relationship (Ray, 2011). Based on Landreth’s (1991) suggestions, White et al. (2000) provided some guidelines for selecting a variety of toys and materials that appear to facilitate children’s exploration and expression. Appropriate toys and materials can be grouped into the three general categories of real-life toys, acting-out/aggressive-release toys, and toys for creative expression and emotional release.
(Landreth, 2012). The playroom settings and toys were designed and provided according to Landreth’s (2012) recommendations as seen in Table 2.

Table 2.

<table>
<thead>
<tr>
<th>Toys in Playroom</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Balls (large and small)</td>
<td>Nursing bottle (plastic)</td>
</tr>
<tr>
<td>Band-Aids</td>
<td>Pacifier</td>
</tr>
<tr>
<td>Barbie doll</td>
<td>Paints, easel, newsprint, brushes</td>
</tr>
<tr>
<td>Bendable doll family</td>
<td>Pitcher</td>
</tr>
<tr>
<td>Blunt scissors</td>
<td>Play camera</td>
</tr>
<tr>
<td>Bobo (bop bag)</td>
<td>Play money and cash register</td>
</tr>
<tr>
<td>Broom, dustpan</td>
<td>Pots, pans, silverware</td>
</tr>
<tr>
<td>Building blocks (different shapes and sizes)</td>
<td>Puppet theater</td>
</tr>
<tr>
<td>Cereal boxes</td>
<td>Purse and jewelry</td>
</tr>
<tr>
<td>Construction paper (several colors)</td>
<td>Rags or old towels</td>
</tr>
<tr>
<td>Crayons, pencils, paper</td>
<td>Rope</td>
</tr>
<tr>
<td>Cymbals</td>
<td>Rubber knife</td>
</tr>
<tr>
<td>Dart gun</td>
<td>Rubber snake, alligator</td>
</tr>
<tr>
<td>Dinosaurs, shark</td>
<td>Sandbox, large spoon, funnel, sieve, pail</td>
</tr>
<tr>
<td>Dishes (plastic or tin)</td>
<td>School bus (Fisher Price type)</td>
</tr>
<tr>
<td>Dishpan</td>
<td>Soap, brush, comb</td>
</tr>
<tr>
<td>Doll bed, clothes, blanket</td>
<td>Spider and other insects</td>
</tr>
<tr>
<td>Doll furniture</td>
<td>Sponge, towel</td>
</tr>
<tr>
<td>Dollhouse</td>
<td>Stove (wood)</td>
</tr>
<tr>
<td>Dolls, baby clothes</td>
<td>Stuffed animals (two or three)</td>
</tr>
<tr>
<td>Dress-up clothes</td>
<td>Telephone (two)</td>
</tr>
<tr>
<td>Drums</td>
<td>Tinker toys</td>
</tr>
<tr>
<td>Drums</td>
<td>Tissues</td>
</tr>
<tr>
<td>Egg cartons</td>
<td>Tongue depressors, popsicle sticks</td>
</tr>
<tr>
<td>Empty fruit and vegetable cans</td>
<td>Toy noise-making gun</td>
</tr>
<tr>
<td>Erasable nontoxic markers</td>
<td>Toy soldiers and army equipment</td>
</tr>
<tr>
<td>Flashlight</td>
<td>Toy watch</td>
</tr>
<tr>
<td>Hand puppets</td>
<td>Transparent tape, nontoxic</td>
</tr>
<tr>
<td>Handcuffs</td>
<td>Truck, car, airplane, tractor, boat, ambulance</td>
</tr>
<tr>
<td>Hats - fireman, policeman, tiara, crown</td>
<td>Watercolor paints</td>
</tr>
<tr>
<td>Lone Ranger-type mask and other masks</td>
<td>Xylophone</td>
</tr>
<tr>
<td>Medical kit</td>
<td>Zoo animals and farm animal families</td>
</tr>
</tbody>
</table>
To maintain treatment integrity, teachers' play sessions and individual teacher supervision sessions were recorded. A counselor education faculty member provided clinical supervision to me throughout the in-service kinder training, play sessions, and individual teacher supervision process. I recorded all supervision sessions with the teachers. The faculty member and I reviewed the kinder training, play sessions, and individual teacher supervision to ensure quality of training and intervention.

Data Analysis

For this study, I used visual data analysis as the primary method of data analysis (Kazdin, 1982; Kennedy, 2005; Kratochwill, 1978; Kratochwill & Levin, 1992). The visual analysis process was based on Kratochwill et al.'s (2010) guidelines. The analysis was used to determine the presence and magnitude of a relationship between the kinder training intervention and the child participant’s on-task behaviors. The primary data source was the observation data from the DOF. The weekly mean of each child participant’s on-task behavior score from the DOF was plotted on an Excel graph after each DOF administration. I continually examined the level, trend, and variability to first analyze within-phase patterns (Kennedy, 2005; Morgan & Morgan, 2009). Level refers to the mean score of the data within a phase. Trend refers to the slope of the best fitting straight line for the data within a phase. The data within a phase is considered more stable when data points are closer to the trend line. Variability of data refers to deviation in scores of the trend line (Horner, Swaminathan, Sugai, & Smolkowski, 2012; Kratochwill et al., 2010).
In the first part of the analysis, I determined whether the baseline data demonstrated a predictable baseline pattern of the proposed problem. Second, I assessed the level, trend, and variability of the data in each phase of the study to examine within-phase patterns. Third, I compared the between-phase patterns for adjacent phases of data to determine if an effect is present. Last, I integrated all data to determine whether the two data points demonstrated the presence of an experimental effect.

In addition to examining within-phase patterns, I examined the immediacy of the experimental effect and overlap across phases. According to Kratochwill et al. (2010), immediacy of the effect refers to the change in the mean or median difference between the last three data points in one phase and the first three data points of the next. Generally, the greater immediacy of effect, the more likely the change is associated with the manipulation of the intervention. Overlap is the proportion of data from one phase that overlaps with data from the previous phase. Lower proportion overlap suggests a larger effect. Additionally, the weight of the overlap is greatest when trend and variability are minimal (Horner et al., 2012; Kratochwill et al., 2010).

I also included an additional vertical analysis to determine internal validity as suggested by Horner et al. (2012). Vertical analysis of multiple baseline aims to assess whether changes in the first series following manipulation are associated with no changes in the other series where the intervention is not implemented. Hence, I compared data in each series to examine if absence of change is found in the non-intervened series (participant 2 and 3). If change occurs in one series and not in others
following phase change, it infers that the change is due to manipulation of the intervention rather than uncontrolled events (Horner et al., 2012).

Besides using visual analysis of level, trend, and variability of data in the examination of the kinder training intervention, I used Tau-U statistic to calculate the effect size of the difference between baseline phase and the intervention phase and to synthesize the effectiveness of the kinder training. Effect size estimates the magnitude of association between two or three variables (Ferguson, 2009).
APPENDIX C

UNABRIDGED RESULTS
This study utilized a single-case design to examine the impact of kinder training on elementary children’s on-task behavior. In this section, I present the findings for each individual participant, including the results of visual analysis and information gathered from follow-up teacher interviews. I used visual analysis as the primary data analysis method to separately examine each participant’s data. After using scoring software to score each assessment, I then graphed each participant’s scores from the Direct Observation Form (DOF) on separate graphs. DOF provides scores for on- and off-task behaviors, internalizing and externalizing behaviors, total problems, and six syndrome scales. Based on my research question, only the on-task scale scores of the DOF were analyzed. I assessed the level, trend, and variability of the data in each phase of the intervention to examine within-phase patterns. I also examined the immediacy of effect and overlap of data across phases. I then compared the between-phase patterns of the data to determine if two data points demonstrated an experimental effect. Vertical analysis of multiple baseline was utilized to assess internal validity. After utilizing visual analysis, I used Tau-U, a nonoverlap method to calculate effect sizes of the contrast between the baseline phase and the intervention phase and evaluate the effectiveness of kinder training.

Participant 1: Jason

Jason participated in 5 weeks of a non-intervention baseline phase and 9 weeks of intervention phase where he participated in 9 play sessions. Table 3 provides the means and standard deviations for on-task scores in each phase of the study. Figure 2 provides a graphical representation of data collection for Jason and illustrates the data level and trend across phases of the study.
Table 3
Means and Standard Deviations for Jason’s On-task Scores

<table>
<thead>
<tr>
<th>Scale</th>
<th>Baseline</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>On-task</td>
<td>5.90</td>
<td>1.08</td>
</tr>
</tbody>
</table>

*Note.* Increased scores indicate improvement

Two DOF observers observed Jason’s on- and off-task behavior for 10-minute intervals three times a week. This generated one average weekly score for on-task behavior. I conducted within-phase analysis and between-phase analysis by assessing the level, trend, variability, immediacy of effect, and overlapping data. In addition to visually analyzing data, I calculated an effect size using the Tau-U statistic.

Evaluation of each phase demonstrated that data were variable during the baseline and intervention phase. Level analysis revealed a mean increase from 5.90 in the baseline phase to 6.83 in the intervention phase, indicating a slight improvement in Jason’s on-task behavior during the intervention phase. Trend analysis indicated that there was a decreasing contra-therapeutic trend during baseline and an increasing trend in a therapeutic direction during intervention. Analysis of variability demonstrated a moderate variability during the baseline and intervention phases with SDs of 1.08 and 0.97 respectively. Data became visibly stable starting with the third data point in the intervention phase. There was a small immediacy of the experimental effect as the mean of the last three data points in the baseline phase (M = 6.00) was .33 points different than the mean of the first three data points of the intervention phase (M =
6.33). There was a large portion of overlapping data observed during the baseline and intervention phases.

In addition to visual analysis, I used a Tau-U software application to calculate the degree of the kinder training’s effectiveness. Tau-U is a nonoverlap method that can address the trend in the baseline phase (Parker, Vannest, Davis, & Sauber, 2011). Tau-scores can range from 0% to 100%. The interpretation of Tau-U results recommend 65% or lower for a small effect, between 66% and 92% for a medium to high effect, and 93 to 100% for a strong effect (Parker et al., 2011; Rakap, 2015). Hence, Tau-U = .47 indicates that data demonstrated a 47% improvement trend from the baseline phase to the intervention phase. It shows a small treatment effect.

Figure 2. Jason’s On-task Scores During Baseline and Intervention Phases. (Increased scores indicate improvement).

Post-Intervention Teacher Interview
After completion of the study, Jason’s teacher, Mrs. Arnold participated in a post interview. Mrs. Arnold reported that kinder training has given her the opportunity to understand Jason’s emotions, thoughts, strengths, and other characteristics that she was not aware of in the classroom setting. Mrs. Arnold also stated that Jason was struggling academically and she became more aware of what Jason needed in order to succeed at school.

Although Jason’s on-task behavior seemed inconsistent, Mrs. Arnold observed that when she provided Jason with encouragement, he made increased efforts to do assigned tasks and remain on-task. According to Mrs. Arnold, prior to the kinder training, Jason would only stay focused on the topics he liked and would easily give up on challenging tasks. Jason appeared more willing to try some challenging work if Mrs. Arnold encouraged him. Mrs. Arnold reported that Jason appeared to like her encouragement as evidenced by his smiling responses. Mrs. Arnold noted that because of the intervention, her relationship with Jason greatly improved. Mrs. Arnold shared that Jason seemed to feel safer and more comfortable to approach her and spend more time engaging her in conversation.

Participant 2: Michael

Michael participated in 6 weeks of a non-intervention baseline phase and 9 weeks of intervention phase where he participated in 9 play sessions. Table 4 provides the means and standard deviations for on-task scores in each phase of the study. Figure 3 shows a graphical representation of data collection for Michael and illustrates the data level and trend across phases of the study.

Table 4
Means and Standard Deviations for Michael’s On-task Scores

<table>
<thead>
<tr>
<th>Scale</th>
<th>Baseline</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>On-task</td>
<td>6.58</td>
<td>1.16</td>
</tr>
</tbody>
</table>

*Note.* Increased scores indicate improvement

Two DOF observers completed the DOF assessments three times a week, based on Michael’s classroom behavior. Their observations generated one weekly average on-task score and I conducted within-phase analysis and between-phase analysis by examining the level, trend, variability, immediacy of effect, and overlapping data. I also calculated the effect size using the Tau-U statistic.

Evaluation of level change revealed a mean increase from 6.58 in the baseline phase to 8.11 in the intervention phase, indicating on-task behavior improved during the intervention phase. Trend analysis within the baseline and intervention phases revealed a decelerating contra-therapeutic trend during baseline and an accelerating trend in a therapeutic direction during intervention. This demonstrated a positive change in Michael’s on-task behavior across phases. Analysis of variability showed moderate variability between phases with $SD = 1.16$ in the baseline phase and $SD = 1.02$ in the intervention phase. The treatment showed an immediate effect as the mean of the first three data points in the intervention phase ($M = 7.17$) was 1.5 points higher than the last three data points in the baseline phase ($M = 5.67$). Data became visibly stable starting with the third data point in the intervention phase. There was moderate overlapping data observed between the baseline and intervention phase.
After conducting visual analysis, I utilized a Tau-U software application to calculate the degree of the kinder training’s effectiveness. It indicated a moderate to high treatment effect as Tau-U = .74. This score revealed that 74% of data showed improvement between phases.

![Graph showing Michael's on-task scores during baseline and intervention phases.](image)

**Figure 3. Michael’s On-task Scores During Baseline and Intervention Phases.**
(Increased scores indicate improvement).

Post-Intervention Teacher Interview

After completion of the study, Michael’s teacher, Ms. Cook participated in a post interview. Ms. Cook considered that kinder training was helpful because it allowed her to build an individual relationship with Michael and provided her the opportunity to better understand Michael’s personality. Ms. Cook reported her awareness that Michael appeared to be an introverted student, so he tended to internalize his thoughts and feelings. Thus, it caused her to easily overlook his needs in the classroom setting.
Ms. Cook reported that she observed a significant difference in Michael’s eagerness to participate in class activities and discussion. Their relationship became closer as Michael seemed to feel safer to communicate with her. Ms. Cook also indicated that Michael’s on-task behavior had improved. Moreover, Ms. Cook reported that Michael became more aware when he was off-task as Michael would approach her and tell her that he had been distracted. Lastly, Ms. Cook shared that she realized that reflecting Michael’s feelings and encouraging him were important to his learning process because he seemed to become more confident and have more courage to communicate his needs and thoughts once she encouraged his efforts in class activities and participation.

Participant 3: Sarah

Sarah participated in 7 weeks of a non-intervention baseline phase and 7 weeks of intervention phase where she participated in 7 play sessions. Table 5 displays the means and standard deviations for on-task scores in each phase of the study. Figure 4 is a graphical illustration of all data collected for Sarah across the baseline and intervention phases.

Table 5
Means and Standard Deviations for Sarah’s On-task Scores

<table>
<thead>
<tr>
<th>Scale</th>
<th>Baseline</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>On-task</td>
<td>7.00</td>
<td>1.19</td>
</tr>
</tbody>
</table>

*Note. Increased scores indicate improvement*
Two DOF raters were assigned to administer the DOF assessment three times a week, based on Sarah’s behavior. This produced one average weekly score for on-task behavior. I conducted within-phase analysis and between-phase analysis by examining the level, trend, variability, immediacy of effect, and overlapping data. Additionally, I calculated an effect size using the Tau-U statistic to further evaluate the treatment’s effectiveness.

Level analysis revealed a mean increase from 7.00 in the baseline phase to 8.71 in the intervention phase. Trend evaluation demonstrated that there was a downward trend during baseline and an upward trend in a therapeutic direction during intervention. It indicated an improving change in Sarah’s on-task behavior across phases. Analysis of variability showed a moderate variability in the baseline phase (SD = 1.19) and a minimal variability in the intervention phase (SD = 0.39). The mean of the first three data points in the intervention phase (M = 8.50) was significantly higher than the mean of the last three data points in the baseline phase (M = 7.00). Data became markedly increased starting with the first data point in the intervention phase, indicating an immediate treatment effect. The graph showed low overlapping data between the baseline and intervention phase.

To examine the degree of the treatment’s effectiveness, I computed Tau-U statistic using a Tau-U software application. The result indicated a large treatment effect as Tau-U = .90. That is, data showed a 90% improvement between two phases.
Figure 4. Sarah’s On-task Scores During Baseline and Intervention Phases. (Increased scores indicate improvement).

Post-Intervention Teacher Interview

Mrs. Bernard, Sarah’s teacher, participated in a post interview upon completion of the study. She reported that kinder training was helpful because she was able to understand where Sarah’s behavior was stemming from and the underlying purpose behind Sarah’s attention seeking behavior. Mrs. Bernard stated that having an understanding of Sarah’s background, she was able to recognize that Sarah strived for feelings of belonging and acceptance as well as a sense of control in the classroom. Hence, when Sarah felt left out in the classroom, she exhibited attention seeking behavior which in turn became off-task behavior.

Although Sarah’s on-task behavior was inconsistent, Mrs. Bernard observed the frequency of her off-task behavior had decreased. Mrs. Bernard also shared that when Sarah was off-task, she became more compliant and willing to finish the task when the
teacher facilitated choice giving. Mrs. Bernard further reported an improved relationship with Sarah that Sarah appeared to feel safer to talk to her and share personal things with her. Moreover, Sarah had become more aware of the teacher’s boundaries and would choose appropriate times to talk to the teacher, such as before class or during recess, rather than interrupting the class.

Multiple Baseline With Participants

To determine the treatment’s internal validity, vertical analysis of multiple baseline was assessed. Figure 5 is a graphical illustration of concurrent multiple baseline across the three participants. I compared Jason’s intervention data to Michael’s and Sarah’s baseline data to evaluate if change in on-task behavior following the intervention was associated with no change in the non-intervened series. It revealed that Jason’s on-task behavior showed an immediate increase in week 6 following the intervention. However, there was no noticeable change in Michael’s on-task behavior in week 6, and Sarah’s on-task behavior demonstrated a downward trend in week 6 where the intervention was not implemented. Hence, the comparison between the baseline and intervention phase across three series indicated that the improvement in on-task behavior was due to the manipulation of the kinder training intervention.
Summary of Results

Table 6 provides a summary of results for all participants in this study. Mean scores for on-task behavior improved for all participants during the intervention phase. Tau-U effect sizes ranged from .47 to .90 indicating a small to strong effect-size value. The results for all participants indicated that kinder training was a beneficial intervention for increasing on-task behavior in the classroom.
Table 6

Summary of All Participants' Results

<table>
<thead>
<tr>
<th>Participant</th>
<th>$M^b$</th>
<th>$M^i$</th>
<th>Tau-U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason</td>
<td>5.90</td>
<td>6.83</td>
<td>.47</td>
</tr>
<tr>
<td>Michael</td>
<td>6.58</td>
<td>8.11</td>
<td>.74</td>
</tr>
<tr>
<td>Sarah</td>
<td>7.00</td>
<td>8.71</td>
<td>.90</td>
</tr>
</tbody>
</table>

*Note. $M^b$ = mean of baseline phase. $M^i$ = mean of intervention phase. Increased scores indicate improvement.*
The purpose of this study was to examine the impact of kinder training on early elementary school children’s on-task behavior in the classroom. On-task behavior was measured using the Direct Observation Form (DOF; McConaughy & Achenbach, 2009). Morgan and Morgan (2003) suggested that single-case design is the best type of research methodology to explain individual behavior change. Hence, this study utilized a single-case experimental design to explore the effect of individual kinder training on children’s on-task behavior. DOF data was collected throughout the duration of the study, including baseline and intervention phases.

Results of the current study suggested that kinder training was an effective play-based teacher intervention for three child participants with mean gains on on-task scores. Findings indicated that all participants demonstrated improvements in on-task behavior during the intervention phase. Additionally, kinder training revealed small to strong treatment effects. During the post-intervention interviews and supervision sessions, three teacher participants reported observing increased on-task behavior in the classroom. Moreover, all the teacher participants noted improved relationships and positive interactions with child participants and a better understanding of child participants’ personalities, behaviors, and emotional needs through weekly individual play sessions. They further indicated that the use of play therapy language and skills, including reflection of feelings and encouragement in the classroom resulted in increased engagement in class activities and discussions across child participants. According to the teacher participants, the kinder training also provided them with effective ways to respond to other students’ emotional needs and behavioral problems.

Effects of Kinder Training on On-task Behavior
According to Powell, Dunlap, and Fox (2006), teachers appear to feel most challenged by children’s problematic behavior in the classroom. Challenging behavior has become recognized as an impediment to young children’s learning, social-emotional development, and school success (Powell et al., 2006). Given that off-task behavior has been linked to reduced academic engagement (Sabourin, Rowe, Mott, & Lester, 2011), it has become one of the most common reasons for student referral (Roberts, 2011). To facilitate children’s academic success, elementary school teachers have expressed the importance of engaging children in the learning process, a key to children’s classroom success (Lane, Givner, & Pierson, 2004; Zhang & Burry-Stock, 2003). Thus, researchers have highlighted concerns about off-task behavior of elementary school children and the need to explore the factors contributing to off-task behavior (Godwin, Almeda, Petroccia, Baker, & Fisher, 2013).

In the current study, I defined off-task behavior as displaying inappropriate conduct in the classroom, such as doodling, looking around the room, playing with other objects, and talking to another student when instructed to listen to the teacher or work on an assigned task (McConaughy & Achenbach, 2009). On-task behavior was defined as exhibiting appropriate behavior in the situation, such as listening to the teacher’s directions, reading a book, working on an assigned task, listening to others in circle time, etc. (McConaughy & Achenbach, 2009). Children who continuously display off-task behavior may not only be less engaged in learning, but also require teachers to constantly redirect them to the task at hand. Repeated redirection and classroom disruptions may influence the quality of instruction to all students and in turn increase overall teaching stress as well as cause strained teacher-child relationships (Lane,
Researchers indicated that most teachers lack training in how to respond to children’s emotional needs and behavior challenges, so they are likely to contribute to strained relationships with children and form negative perceptions of those children (Gonzales, 2012; Helker & Ray, 2009; Pianta, 1999). This may produce a never-ending cycle of interactions between teachers and children because both teachers and children experience the classroom environment negatively (Bennett & Bratton, 2011; Gonzales, 2012; Helker & Ray, 2009; Pronchenko-Jain, 2012; Yost & Mosca, 2002). In order to effectively respond to children’s emotional and behavioral needs and enhance teacher-child relationships, it seems essential and necessary to provide teachers with professional development training aimed at enhancing their knowledge and providing them with effective strategies for managing emotional and behavioral concerns and related academic disruptions (Adelman & Taylor, 2012).

Kinder training is a play-based professional development training model that systematically addresses teacher-child relationships, children’s social-emotional and academic development, children’s lifestyle, as well as teachers’ classroom management skills (White, Draper, Flynt, & Jones, 2000). Kinder training consists of experiential and didactic components, including a review of child development, fundamental concepts of Individual Psychology (Adler, 1983), such as lifestyle, private logic, social interest, encouragement, and goal identification. This can be particularly helpful for teachers who express eagerness to holistically understand children’s characteristics, underlying purposes of off-task behavior, and social-emotional needs. Additionally, the teachers
are taught the play principles and play techniques of tracking, encouragement, empathy, and logical consequences as basic guidelines to facilitate play sessions with their students. Specifically, play sessions can provide teachers and students with the opportunity to enhance teacher-child connections and communication.

In the current study, each child had the opportunity to freely and safely express themselves through play and to feel accepted and understood by the teacher through weekly 30-minute play sessions. The teacher was also able to build an individual relationship with the child and observe the child’s lifestyle, behavior, and social-emotional needs through their play behavior. During weekly individual supervision sessions, I provided a safe and an encouraging environment for teachers to review their play sessions and process their reactions and concerns related to the play sessions. I also facilitated teachers’ awareness of children’s personalities, feelings, and needs. I further assisted teachers in transferring kinder training language and skills to the classroom context.

The results of this study indicated that kinder training appeared mostly beneficial in improving on-task behavior for all participants, as the means for all participants, as measured by the DOF, increased during the intervention phase. The treatment effects demonstrated small to strong effect sizes. Although the results showed a wide range of treatment effects, during the individual supervision sessions and post-intervention interviews, all of the teacher participants reported that focal children demonstrated increased on-task behavior in the classroom. Additionally, teachers noted that because of the weekly individual play sessions, they experienced improved relationships and positive interactions with child participants. Furthermore, teachers indicated that the
weekly individual supervision sessions provided them opportunities to gain awareness of children’s feelings, thoughts, and behavior and to link the meaning of children’s play behavior to off-task classroom behavior.

The results regarding the impact of kinder training on children’s off-task behavior provide support for the notion of a reciprocal relationship among children’s behaviors, teacher-child relationships, teachers’ perceptions of children’s behaviors, and teachers’ behaviors (Birch & Ladd, 1998; Gonzales, 2012; Helker & Ray, 2009; Myers & Pianta, 2008; Pianta, 1999; Yost & Mosca, 2002). In the current study, all the teacher participants reported increased concerns about participating children’s off-task behavior and having tried various ways to manage their off-task behavior prior to the intervention. However, these methods appeared ineffective. Teachers who experienced children’s off-task classroom behavior felt challenged in the classroom context because of a lack of training and knowledge in working with children displaying problematic behavior. It appeared to cause an increase in teaching stress and strained teacher-child relationships as reported by teachers. Based on teachers’ report prior to the intervention, teachers were likely to consider children to be reluctant to engage in academic activities. This may have further decreased teachers’ emotional availability to attend to the emotional and behavioral needs of these children.

Research indicates that a teacher’s negative responses to a child’s misbehavior may create more emotional disturbance within the child, influencing the child to display additional problem behaviors (Gonzales, 2012). Researchers also argued that children’s learning behavior in the classroom can significantly depend on the quality of teacher-child relationships (Abidin, Greene, & Konold, 2004; Pianta, 1999). Hence, in the current
study, children’s relationships with teachers may have been a key element in improving on-task behavior. Kinder training is based on Adlerian principles and concepts that utilize relationships for attaining a holistic understanding of children as part of facilitating change (White et al., 2000). Kinder training aims to enhance teachers’ ability to connect with children, help children make better adjustments to their classrooms, and ultimately improve children’s academic and social skills as well as their relationships with teachers in the school environment (White et al.). As a result, in the current study, child participants’ improvement in on-task behavior is likely a result of the teacher-child relationship focus of the intervention. Additionally, the implementation of kinder training appeared to facilitate teachers’ understanding of children’s goals related to off-task behavior and provided teachers with effective strategies for promoting children’s on-task behavior.

Teacher-Child Relationships and Perceptions of On-task Behavior

According to Myers and Pianta (2008), teacher’s perceptions and beliefs about students may serve as a foundation for the establishment of positive teacher-child relationships. Hence, it seems essential to explore teachers’ perceptions of children’s off-task behavior when exploring the impact of kinder training. Based on the findings of the current study, teachers appeared to appreciate that play sessions allowed them to build a meaningful connection with the child. They also reported that they were able to gain a better understanding of the child’s personality and needs, particularly within the play session context, and observe an improvement in on-task behavior in the classroom. These findings are consistent with the main purpose of kinder training and studies that have been conducted to date. Previous research indicated that when
teachers were involved in weekly play sessions while receiving supervision sessions from counselors, there were improvements in teacher-child relationships (Draper, White, O’Shaughnessy, & Jones, 2001; Draper, Siegel, White, Solis, & Mishna, 2009; Edwards, Varjas, White, & Stokes, 2009; White, Flynt, & Draper, 1997; White, Flynt, & Jones, 1999), increases in awareness of children’s needs (Solis, 2005), and reduction in children’s problem behaviors (Draper et al., 2001; Edwards et al., 2009; White et al., 1997, 1999).

In the current study, Mrs. Arnold shared a touching moment with Jason in one of the play sessions. During the initial play sessions, Jason appeared eager to connect with his teacher through playing puppet shows or standing in front of her to tell her stories. However, toward the end of the intervention period, Mrs. Arnold noticed that Jason appeared to feel safe enough to get closer to her; he would sit down with her and invite her to play in the sand with him. During the last play session, Jason again invited Mrs. Arnold to play in the sand with him; moreover, he raised his hand and said “high five” to Mrs. Arnold. Mrs. Arnold reported that she had experienced an increased bond with Jason because of the play sessions. Furthermore, Mrs. Arnold observed that Jason seemed to feel safer and more comfortable to approach her in the classroom setting, engage her in conversation, and express himself in class activities. Mrs. Arnold also observed that Jason became more willing to try challenging work and make efforts to do tasks when she encouraged him. Although the intervention with Jason showed a small effect due to high variability in scores, in the post-intervention interview, Mrs. Arnold reported that he made noticeable improvements in on-task behavior. Although not reflected in the data, Mrs. Arnold’s report suggests that kinder training enhanced her
relationship with Jason and positively influenced her perception of Jason’s behavior. This finding is consistent with the literature that suggests that teachers’ perceptions of children’s behavior are critical because they may influence teachers’ behavior toward children and consequently affect the quality of the teacher-child relationships (Dobb & Arnold, 2009; Pianta, 1999).

Ms. Cook also reported that as a result of the play sessions, her relationship with Michael had been enhanced. Ms. Cook shared that although she wanted to build her relationship with Michael, she found it challenging to connect with him during the play sessions because Michael had been hiding behind the puppet theater while playing with toys. However, toward the end of the intervention phase, Ms. Cook observed that Michael would come out from behind the puppet theater more frequently to take other toys back to the theater and increased his responses to her facilitative statements by saying short phrases instead of remaining silent. Moreover, Ms. Cook noticed that Michael would peek at her through the theater curtain. Ms. Cook reported feeling amazed by Michael’s positive change throughout the play sessions. Additionally, Ms. Cook reported that Michael appeared to feel safer and have more courage to communicate his needs in the classroom. For example, Ms. Cook shared that she would give students stickers for reinforcement. If Michael believed that he deserved them, he would tell Ms. Cook that she forgot to give him stickers. Michael also became more aware of his off-task behavior, and when this happened, he would tell Ms. Cook that he felt distracted. Ms. Cook also shared that Michael appeared to become more confident in sharing his ideas in class and more willing to engage in class activities. This finding responds to literature that emphasizes the role of positive teacher-child
relationships in children’s academic engagement (Abidin, Greene, & Konold, 2004; Birch & Ladd, 1998). It seems logical to believe that Ms. Cook’s stronger relationship with Michael likely altered her perception of Michael’s positive behavior change and in turn influenced her responses to Michael’s behavior. Ms. Cook’s new behavioral responses may have subsequently affected Michael’s behavior in the classroom, thereby increasing Michael’s engagement in learning.

According to Mrs. Bernard, she had experienced an increased bond with Sarah as a result of play sessions. Mrs. Bernard noticed that at the beginning of the play sessions, Sarah did not seem to feel comfortable to play freely with toys in the playroom, as she would constantly check on Mrs. Bernard’s reactions to her play while she was playing with the toys. Toward the end of the play session sequence, Sarah appeared to become comfortable with playing with a variety of toys, as she seemed to become more focused on her play and less frequent in checking Mrs. Bernard’s reactions. Furthermore, Sarah would share her thoughts and feelings about her relationships with family through symbolic play as reported by Mrs. Bernard. Mrs. Bernard observed that in the classroom setting, Sarah’s off-task behavior had been decreasing. Sarah had become more comfortable approaching Mrs. Bernard and more aware of Mrs. Bernard’s boundaries. Instead of interrupting the class activities, Sarah would choose appropriate situations to talk to Mrs. Bernard, such as during recess or class transitions. Mrs. Bernard’s report appears consistent with teacher-child relationship literature that indicates a link between positive teacher-child relationships, teachers’ perceptions of children’s behavior and improved classroom behavior (Birch & Ladd, 1998; Ladd & Burgess, 2001; Pianta, 1999).
Previous research suggested that a positive teacher-child relationship is a contributor to a child’s social-emotional development and academic engagement (Birch & Ladd, 1998; Hamre & Pianta, 2005; Howes et al., 2008; Ladd & Burgess, 2001; Pianta, 1999). The essence of kinder training is to create an opportunity for the teacher to build a meaningful relationship with the child that will improve both the child’s and teacher’s behavior outside the playroom (White et al., 2000). In the current study, when reviewing all three teacher participants’ experiences in conducting play sessions with the children of focus, it was evident that play sessions were effective for relationship building. Consequently, it seems reasonable to posit that weekly play sessions seem to play an important role in increasing positive relationships between teachers and children thereby contributing to positive change in children’s off-task behavior in the classroom environment.

Teacher’s Understanding of Goals of Off-task Behavior

It is worth noting that early in development, children’s emotions are expressed behaviorally (Pianta, 1999). Although off-task behavior often has been linked to reduced academic engagement, Roberts (2011) indicated that children might exhibit off-task behavior for the purpose of accessing more preferred activities, such as seeking adult or peer attention, or avoiding doing undesirable and challenging learning activities. Sabourin et al. (2011) also noted that some children may use off-task behavior as a coping mechanism to regulate their negative emotions or to recharge their motivation to participate in learning activities. In order to help teachers and children establish an awareness of goals of behavior, kinder training combines basic play therapy skills, Adlerian principles, and teacher consultation methods (White et al., 2000). The Adlerian
approach provides a unique way for teachers to understand children’s worlds and their way of connecting to the social environment.

In the current study, through classroom observations, play sessions, and supervision sessions, Mrs. Arnold noted an increased understanding of the purpose behind Jason’s off-task behavior. Mrs. Arnold reported that Jason had been struggling academically and had difficulty in staying on-task and retaining lesson material prior to the kinder training. Throughout the kinder training, Mrs. Arnold realized that Jason appeared to feel discouraged and frustrated by assigned tasks because of his poor academic skills. Hence, Mrs. Arnold became aware that Jason seemed to use off-task behavior to avoid his discouragement in completing tasks. Throughout the kinder training, Mrs. Arnold reported that she was able to understand Jason’s feelings, thoughts, strengths, and other characteristics that she was not aware of in the classroom setting prior to participating in the study. It seemed evident that kinder training facilitated Mrs. Arnold’s understanding of the potential meaning of Jason’s off-task behavior and further provided her with effective strategies, including reflection of feelings and encouragement to deal with Jason’s off-task behavior in the classroom setting.

Ms. Cook also reported establishing an awareness of Michael’s emotional needs and goals of off-task behavior as a result of kinder training. Ms. Cook observed that Michael had been day dreaming and easily distracted by peers prior to the intervention. During the intervention, Ms. Cook became aware that because Michael’s father was in the military and his mother recently had a baby, Michael may not have been receiving enough attention and nurture from his parents. Ms. Cook gained an understanding that
this may serve as an emotional stressor for Michael and result in his use of off-task behavior to regulate his negative emotions. Therefore, during the post-intervention interview, Ms. Cook expressed her goals in continuing to meet Michael’s emotional needs.

Mrs. Bernard appeared to gain a better understanding of the underlying purpose of Sarah’s off-task behavior throughout the kinder training. Mrs. Bernard reported that Sarah’s aunt had raised Sarah since she was a baby, yet she did not seem to feel close to her aunt and her aunt’s two daughters. During the play sessions, Sarah often played out a scene of a doll feeling left out and controlled by family members. Hence, Mrs. Bernard became more aware that Sarah’s negative relationships with her family may explain Sarah’s eagerness to seek attention from family, teachers, and peers and to strive for belonging in the classroom by engaging in off-task behavior and interrupting the class. Based on Mrs. Bernard’s interpretation of Sarah’s goals of off-task behavior, I encouraged Mrs. Bernard to reflect Sarah’s feelings and thoughts and practice goal disclosure techniques to help Sarah become aware of her goals of behavior during the play sessions. Mrs. Bernard’s understanding of Sarah’s off-task behavior and her using reflection of feelings and goal disclosure statements appeared to help Sarah feel understood and further decreased her off-task behavior.

In the current study, teachers had the opportunity to understand children’s goals of off-task behavior and underlying emotional needs through Adlerian principles, the play sessions, and direct supervision. These components appeared to facilitate the teachers’ awareness of children’s unique needs and their development of effective ways to respond to children’s off-task behavior. Hence, kinder training appears beneficial to
help teachers gain an understanding of children’s off-task behavior and further change teachers’ negative perceptions of children’s off-task behavior. These findings support previous literature that suggests that a teacher’s negative responses toward a child’s behavioral challenges may create more emotional disturbance within the child, influencing the child to exhibit additional negative behaviors. To end this negative cycle, researchers recommended that the teacher attempt to understand the child’s unique needs and provide emotional support when the child exhibits challenging behavior (Gonzales, 2012; Pronchenko-Jain, 2012; Ray, 2007). In other words, given that the teacher participants in the current study developed positive responses toward the child participant’s off-task behavior, these responses seemed to help the children decrease off-task classroom behavior.

**Clinical Implications**

To date, this study is the first to use single-case experimental design to examine the effect of kinder training on elementary school children exhibiting off-task classroom behavior. The findings indicate many clinical implications for implementing kinder training in schools. Results suggest that counselors can use kinder training in schools to successfully help early elementary school children who exhibit off-task behavior. All child participants demonstrated improvement in on-task behavior in the classroom as a result of the kinder training intervention. All teacher participants were able to identify children’s increase in on-task behavior and academic engagement.

Researchers have found that most teachers lack training in effectively responding to children’s emotional needs and behavior concerns (Gonzales, 2012; Helker & Ray, 2009). White et al. (2000) noted that kinder training can assist teachers in
coping with children’s emotional and behavioral problems more effectively and providing key classroom management tools. The findings of the current study provide support for implementing kinder training in schools as a prevention or early intervention training model aimed at decreasing off-task behavior and enhancing children’s academic engagement in the school environment.

Additionally, due to the lack of training regarding children’s mental health and wellness in teacher education programs, novice teachers may easily become overwhelmed and stressed by children’s problem behavior when they enter the teaching field. Hence, counselors may also consider providing kinder training to pre-service teachers so that they may be better equipped to support children’s social-emotional needs in the future.

Regarding the format of kinder training, given the nature of the multiple-baseline across subjects design, I provided the teachers with individual kinder training. It appears that the individualized format allows flexibility to meet each teacher’s unique needs by tailoring the kinder training and addressing individual concerns regarding children of focus during the in-service training. Additionally, I was able to build an individual relationship with each teacher throughout the kinder training, providing me the opportunity to understand and support each teacher’s emotional needs and learning. Although it took a longer time for me to complete the in-service kinder training and direct supervision sessions for all teacher participants, I found that teachers appeared to appreciate the flexibility of the training schedule and the quality of individualized training format. Due to the relationship building during the individual kinder training, teachers appeared to engage with me more quickly and feel safer and more comfortable to
discuss their play session progress or insights throughout the intervention. Hence, counselors may consider conducting individual kinder training with teachers to enhance the quality of the training.

Implications for Future Research

This study represents an initial investigation of the impact of kinder training on early elementary school children’s off-task behavior in the classroom. Hence, this study serves as a foundation for future studies in this area. Due to the limited research studies examining the effects of kinder training for children’s off-task behavior, in the future researchers may consider conducting kinder training with a larger sample size in multiple settings to expand the evidence for the effectiveness of kinder training and establish the kinder training intervention as an empirically supported treatment.

Because of the reciprocal relationship among teacher-child relationships, teacher’s stress, and children’s behavior, researchers may also consider including additional assessments to analyze the weekly interaction between the teacher and the child as well as evaluate the teacher’s level of stress. This exploration may increase an understanding of the impact of kinder training on the cyclical relationship between teacher’s level of stress and children’s problem behavior.

Other areas for future research would include the effects of kinder training with children with special needs. In addition, due to the growth of the immigrant population in the United States, it seems beneficial to investigate the impact of the intervention on English-as-a-second language students and teachers. Finally, elementary school teachers may experience various challenging behaviors from children of different ages and developmental levels. Although kinder training is designed for K through 2nd grade,
the kinder training model could be adapted to meet the needs of older students as well. Future researchers may consider exploring the effect of a school-wide kinder training intervention.

Limitations

There are specific limitations to this study, including the lack of generalizability, potential extraneous factors, possible researcher bias, and effect size selection. Due to the single-case experimental design and data analysis of a small number of participants, this study has minimal external validity, limiting the ability to generalize the findings. Although all participants demonstrated an improvement in on-task behavior and the results revealed small to strong effects, it is still difficult to generalize the outcome to other children exhibiting off-task behavior due to the nature of the single-case design. However, the single-case design allowed me to gain a greater understanding of each teacher’s perspectives through in-depth data collection and explain individual behavior change through weekly observations.

Another limitation involved the occurrence of extraneous factors. It was difficult to control some extraneous factors that co-occurred during the research process. For example, two participants were absent from school for a few of days during the baseline and the intervention phase. Hence, it potentially affected the weekly observations and assessments of children’s on-task behavior. In addition, two participants had a one-week gap during the play session phase because the school was closed for inclement weather and State of Texas Assessments of Academic Readiness testing. According to DOF results, both participants’ on-task scores appeared lower compared to other on-task scores within their intervention phase. Both teachers also reported that skipping
one of the weekly play sessions appeared to negatively affect the children’s on-task behavior when they returned to school.

Although DOF observers were trained to have minimal interaction with the children in the classroom and were instructed to find a place where they could observe the children unobtrusively, the multiple, frequent classroom observations by the DOF observers may have influenced the child participants to alter their responses in the classroom. The potential for researcher bias existed primarily because all teacher participants were trained and interviewed by me. Thus, the pre- and post-intervention interview data collection may reflect reduced objectivity as a result of my dual roles of trainer and researcher.

In addition to visual analysis in this study, I used the Tau-U statistic to calculate the degree of the kinder training’s effectiveness. Tau-U controls for monotonic trend and addresses changes in trend and level (Brossart, Vannest, Davis, & Patience, 2014; Vannest, Davis, & Parker, 2013). It shows more statistical power than any other nonoverlap index known (Parker, Vannest, Davis, & Sauber, 2011). Hence, Tau-U appears a stronger performing non-parametric method for analyzing single-case data and appropriate for small data sets (Brossart et al., 2014; Parker et al., 2011). However, Tau-U is a relatively new model (Parker et al., 2011). Further study is needed to examine the effects of incorporating the Tau-U effect size with visual analysis for quantifying intervention effectiveness in single-case designs.

Conclusion

The number of young children exhibiting behavioral problems has significantly increased in recent years. Teachers particularly feel challenged by children’s off-task
behavior in the classroom (Powell et al., 2006). Hence, off-task behavior has become one of the most common reasons for teacher's referrals to school counselors (Roberts, 2011). Children who continuously exhibit off-task behavior may not only reduce engagement in learning (Lane, Wehby, & Cooley, 2006; Luiselli, Putnam, Handler, & Feinbergl, 2005) but also increase teaching stress and cause strained teacher-child relationships (White et al., 2000; Ray, 2007). However, children’s emotional distress may contribute to their emotional difficulties and can often result in a lack of academic engagement (Edwards et al., 2009; White et al., 2000). Teachers who lack training in effectively attending to children’s emotional needs and off-task behavior may potentially increase children’s additional problem behavior.

The purpose of this study was to investigate the impact of kinder training with children exhibiting off-task behavior. Specifically, I examined the effectiveness of kinder training on early elementary school children’s on-task behavior in the classroom. The findings provide support for kinder training as an effective play-based teacher professional training model that can improve children’s on-task behavior. Results demonstrated that all child participants showed improvement in on-task classroom behavior as measured by the DOF. Visual analysis revealed that all participants demonstrated an increasing therapeutic trend during the intervention phase, indicating a positive change in participants’ on-task behavior during the intervention phase. All teacher participants reported observing improvement in child participants’ on-task behavior and teacher-child interactions. Teachers’ post-intervention reports supported the notion of reciprocal interactions among teacher-child relationships, understanding of children’s lifestyle and goals of misbehavior, and children’s on-task behavior.
APPENDIX E

INFORMED CONSENTS
Title of Study: The Impact of Kinder Training on Early Elementary School Children’s On-task Behavior: A Single Case Design

Student Investigator: Szu-Yu Chen, University of North Texas (UNT) Department of Counseling and Higher Education. Supervising Investigator: Dr. Natalya Lindo

Purpose of the Study: You are being asked to participate in a research study which involves measuring the effectiveness of a professional development training model called Kinder Training. The goal of this study is to potentially help teachers build a stronger relationship with their students while improving overall classroom management skills. Kinder Training also aims to help children grow emotionally, behaviorally and academically.

Study Procedures: The entire research project should take no more than 17 hours. The study will take place over a twelve-week period. You will conduct special play times with a target student for 30 minutes per week for six weeks. After each play session, you will meet with the researcher for approximately 15 minutes to discuss your progress. All play times will be videotaped. Supervision sessions may be audio taped. The twelve-week training will include the following:

Before the twelve-week training, we will ask you to answer some basic questions about yourselves, your student, and your relationship with your student. This will be done in the form of an individual interview. This interview will be audio-taped to help the researchers to understand the project better. All information shared will be private. Your identity will not be revealed and all video/audio-tapes will be destroyed at the end of the project.

During the twelve-week training, we will teach you all about Kinder Training, and show you videos and live demonstrations. There will also be live practice sessions, role-plays, and group discussion. We will observe your student’s on-task and off-task behavior in classroom three times per week.

After the twelve-week training we will ask you what you thought about the training. This will be done in the form of an individual interview. This interview will be audio-taped to help the researchers to understand the project better. All information shared will be private. Your identity will not be revealed and all video/audio-tapes will be destroyed at the end of the project.
Foreseeable Risks: The potential risks involved in this study may include any discomfort you may feel by having a researcher review the video-tapes, audio-tapes and your responses to the assessments.

Benefits to the Subjects or Others: We expect the project to benefit you by strengthening the relationship between you and your student. Other potential benefits include increased confidence in teaching, and reduced problem behaviors of your student.

Compensation for Participants: You will receive $100.00 as compensation for your participation in this research project. Compensation will be provided once you have completed all tasks including: Kinder training, six play and supervision sessions, and the pre and post-training individual interview.

Procedures for Maintaining Confidentiality of Research Records: The confidentiality of your individual information will be maintained in any publications or presentations regarding this study. No one will view your play/supervision session recordings, look at your assessment responses or listen to your audio-taped interviews other than the researcher and key personnel. Your recordings will be kept for no more than three years beyond the end of data collection and then the recordings will be destroyed by the researcher. All recordings and evaluations of recordings will be kept locked in a file draw in the researcher’s office in Welch Complex 2 at the University of North Texas, Denton, TX.

Questions about the Study: If you have any questions about the study, you may contact Szu-Yu Chen at telephone number (940) 594-7807 (cell) or e-mail her at SzuYu.Chen@unt.edu or Dr. Natalya Ann Lindo at telephone numbers (940) 565-2915 (office) or e-mail her at Natalya.Lindo@unt.edu.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants’ Rights:

Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Szu-Yu Chen has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
• You understand why the study is being conducted and how it will be performed.
• You understand your rights as a research participant and you voluntarily consent to participate in this study.
• You have been told you will receive a copy of this form.

______________________________
Printed Name of Participant

______________________________
Signature of Participant                     Date

For the Student Investigator:

I certify that I have reviewed the contents of this form with the subject signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

______________________________
Signature of Student Investigator                     Date
Before agreeing to your child’s participation in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

**Title of Study:** The Impact of Kinder Training on Early Elementary School Children’s On-task Behavior: A Single Case Design

**Student Investigator:** Szu-Yu Chen, University of North Texas (UNT) Department of Counseling and Higher Education. **Supervising Investigator:** Dr. Natalya Lindo

**Purpose of the Study:** You are being asked to allow your child to participate in a research study which involves measuring the effectiveness of a professional development training model called Kinder Training. The goal of the study is to potentially help teachers build a stronger relationship with their students while improving overall classroom management skills. Kinder Training also aims to help children grow emotionally, behaviorally, and academically.

**Study Procedures:** Your child’s part in this project should take no more than **three hours**. He/she will have special play times with his/her teacher for about **30 minutes per week**, for a total of **six play sessions**. All play times will be videotaped and looked at by the teacher and the researcher. This will help the researcher to understand the project better and help the teacher learn new and important skills. Your child’s teacher will answer basic questions about your child and the teacher-child relationship before and after the training. This will be done in an individual interview. The researcher will also observe your child’s on-task and off-task behavior in classroom **three times per week**. This will be done in written form using one standard assessment form: Direct Observation Form (DOF). All information shared will be private. Your child’s identity will not be revealed and all videotapes will be destroyed at the end of the project.

**Foreseeable Risks:** No foreseeable risks are involved in this study.

**Benefits to the Subjects or Others:** We expect the project to benefit your child by improving the relationship between your child and his/her teacher. Other potential benefits for your child include improved behavior and academic engagement.

**Procedures for Maintaining Confidentiality of Research Records:** The confidentiality of your child’s individual information will be maintained in any publications or presentations regarding this study. No one will view your child’s play session recordings or have access to the teacher’s interview and assessment responses other than the researcher and key personnel. The recordings will be kept for no more than three years beyond the end of data collection and then the recordings will be destroyed.
by the researcher. All recordings and evaluations of recordings will be kept locked in a file draw in the researcher’s office in Welch Complex 2 at the University of North Texas, Denton, TX.

Questions about the Study: If you have any questions about the study, you may contact Szu-Yu Chen at telephone number (940) 594-7807 (cell) or e-mail her at SzuYu.Chen@unt.edu or Dr. Natalya Ann Lindo at telephone number (940) 565-2915 (office) or e-mail her at Natalya.Lindo@unt.edu.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants’ Rights: Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw him/her from the study will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your child’s participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child’s participation in this study.
- You will receive a copy of this form for your records.

Printed Name of Parent or Guardian

Signature of Parent or Guardian        Date
**Child Assent Form**

You are being asked to be part of a research project being done by the University of North Texas Department of Counseling and Higher Education.

You will have six special play times with your teacher for about 30 minutes each. This study involves recording the play sessions with your teacher.

If you decide to help with this study, please remember you can stop participating any time you want to.

If you would like to be part of this study, please sign your name below.

________________________________________
Printed Name of Child

________________________________________
Signature of Child                  Date

________________________________________
Signature of Student Investigator     Date

**Waiver of Assent**

The assent of (insert name of child) was waived due to:

__________ Age

__________ Maturity

__________ Psychological State

________________________________________
Signature of Parent or Guardian                  Date
APPENDIX F

TEACHER DEMOGRAPHIC INFORMATION FORM
Demographic Information Form

Name:

Gender:

☐ Male   ☐ Female

Ethnicity:

☐ Caucasian   ☐ African American   ☐ Hispanic   ☐ Native American
☐ Asian       ☐ Bi-racial       ☐ Other ________________

Highest Level of Education Completed:

☐ High School Diploma
☐ Some college
☐ Professional Diploma (specify type: ________________________)
☐ Associate’s Degree
☐ Bachelor’s Degree
☐ Professional Degree (specify type: ________________________)
☐ Graduate Degree (specify type: __________________________)

Years of Teaching Experience:

Current Grade Level:

Additional Training/certification (please specify) :
APPENDIX G

PRE-INTERVENTION INTERVIEW QUESTIONS
Pre-Intervention Interview Questions

1. Tell me a little about what brought you to the teaching field.

2. What do you enjoy most about teaching?

3. In your experience, what have been the most effective methods (academic/interpersonal) that you have used to help your students to learn and remain on-task?

4. Teaching is challenging, particularly when you think of connecting with students one on one. How do you build a relationship with your students?

5. In a few words, how would you describe your classroom atmosphere?

6. Tell me about the student you chose to work with for the kinder training?

7. How do you perceive your relationship with the identified student?

8. What challenges you the most in terms of the identified student’s behavior in the classroom?

9. How do you manage the identified student’s off-task behavior?
APPENDIX H

POST-INTERVENTION INTERVIEW QUESTIONS
Post-Intervention Interview Questions

1. Please tell me a about your experience with the kinder training? What aspects were helpful/ unhelpful?

2. Did you have any difficulties conducting the play sessions? If so, what were those difficulties?

3. What was it like to discuss your play session progress in individual supervision?

4. What did you learn about yourself as a result of participating in the training and conducting the play sessions?

5. What did you learn about the identified student?

6. In what ways (if any) did the play sessions and your use of the specific language and skills affect on-task behavior and other classroom behavior of the identified student you chose to work with?

7. Have you perceived any change in the identified student’s on-task behavior as a result of the kinder training? If so, what kind of change have you seen?

8. Has the way you interact with the identified student changed as a result of this training? If so, how?

9. What did you learn about your beliefs about teacher-child relationships as a result of this training?


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