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A detailed analysis of coaching in Teacher-Child Interaction Training (TCIT)

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A Detailed Analysis of Coaching in Teacher-Child Interaction Training (TCIT)

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Ian Beutler, for their drive to courageously pursue their dreams, which inspired me to pursue mine. This project could not have been completed without the unconditional support from my partner, Matthew Nowak, who has an uncanny ability to help me stay calm and focused throughout the stressors of a doctoral program and who provided me with lots of love and encouragement. Lastly, this project is dedicated to Chase Nowak, who constantly reminded me to be thankful every day that "the sun came up!", provided timely "everybody hugs" and whose toddler age allowed me to continually practice my "PRIDE" skills.

Table of Contents

List of Tables

List of Figures

Abstract

Teacher-Child Interaction Training (TCIT) is a school-based prevention program in which teachers are taught to use basic principles of behavior modification in the classroom to prevent and reduce problem behaviors in young children. A key aspect of the effectiveness of TCIT is the in-vivo coaching, which allows for immediate feedback during the natural flow of teaching activities with children. The purpose of the current study is two-fold: a) to support the research on the effectiveness of the DePaul TCIT method in preschool classrooms and b) to analyze the content and quality of coaching statements. The intervention was introduced sequentially within a multiple baseline design across two preschool classrooms. Systematic visual analyses of the graphs demonstrated that the teachers increased their positive attention skills. Coaching data suggested that the majority of content of the coach's statements involved the same positive attention skills taught to the teachers, such as labeled praises. Additionally, the data suggested that the content of the coach's comments were related to the experience level of the teacher and the specific treatment phase.

Keywords: Teacher Coaching, Teacher Training, Teacher-Child Relationship, Positive Behavior Support, Teacher Child Interaction Training, Classroom Management

Introduction

The purpose of the present study is two-fold. First, this study seeks to add to the current body of research demonstrating the effectiveness of Teacher-Child Interaction Training (TCIT) as a universal prevention program in preschool classrooms. Second, this study seeks to ascertain the elements of a key aspect to the success of TCIT: in-vivo coaching. The following literature review will provide a brief background on the importance of developing positive teacher-student relationships, programs developed to facilitate teacher-student relationships, and the history of coaching adult-child interactions. This literature will provide a rationale for the purpose of the current study.

Importance of Positive Teacher-Student Relationships

It is generally accepted that it is important that students and teachers develop a positive relationship. However, the exact benefits of such a relationship are perhaps less clear. The following section will give a brief summary of research that suggests the specific benefits of positive teacher-student relationships.

Benefits in attachment. Research in attachment theory has highlighted the importance of early, positive parent-child interactions. The central theme of attachment theory is that primary caregivers who are available and consistently responsive to their child's needs allow the child to develop a sense of security, which creates a secure base for the child to then explore his or her world (Ainsworth, Blehar, Waters & Wall, 1978; Bowlby, 1988). A similar process also occurs with young children and their relationships with their teachers. A positive teacher-student relationship can also provide the student with a "secure base" so that they are more emotionally secure (Pianta, 1999). This frees up the ability to fully engage in learning activities and allows them to feel more secure in

the "trial and error" processes necessary to be successful academically (Wentzel, 2002; Pianta, 1999).

If such a secure attachment is not formed between a child and his or her caregiver, research shows a developmental trajectory that may lead to problems regulating emotions, oppositional behaviors, poor academic performance, and problems in later relationships (Greenberg, Speltz & Deklyen, 1993; Erickson, Sroufe & Egeland, 1985; Waters, Merrick, Treboux, Crowell & Albersheim, 2000). Teacher-student relationships are often one of the first key relationships that a child develops after the one with his or her primary caregiver(s). Research shows the importance of these early relationships with primary caregivers and how children may generalize these relational schemas to other contexts and other adults (Pianta, Nimetz, & Bennett, 1997). However, there is also a growing body of research to suggest that early teacher-child relationships can serve to repair maladaptive internal working models and/or create a new "teacher relational schema" that may serve to prevent a maladaptive developmental trajectory (Lynch & Cicchetti, 1992; Pianta, 1999). For instance, O'Connor and McCartney (2006) found that children's relational quality with teachers at 54 months more strongly predicted kindergarten and first grade teacher-child relationships than maternal attachment. This suggests that early teacher-child relationships may set the stage for how that child interacts with teachers throughout their schooling. Thus, this research highlights not only the importance of positive teacher-student relationships, but also that *early,* positive teacher-student interactions are particularly important.

Benefits in emotion regulation & acting out behaviors. Studies on developmental trajectories show that children with poor emotion regulation abilities

typically have difficulties that continue later in life, such as higher incidence of externalizing problems, more academic problems, and poor interpersonal skills (Eisenberg et al., 2000; Davis & Levine, 2013; Dunn & Brown, 1994; Rydell, Berlin, & Bohlin, 2003). Specifically, research suggests that 50% or more of preschoolers with disruptive behaviors continue to display concerning levels of disruptive behaviors later in their schooling and later in life (Moreland & Dumas, 2008).

This suggests that early interventions to reduce problem behaviors may also reduce life-long behavioral challenges. Researchers have found that early, positive relationships with teachers appear to reduce this risk of externalizing and internalizing problems (Baker, 2006; Baker, Grant & Morlock, 2008, Ladd & Burgess, 2001; Silver, Measelle, Essex, & Armstrong, 2005) and allow children to experience more positive emotions (Patrick & Ryan, 2003). It is difficult to discern whether positive teacher-student interactions lead to better emotion regulation and less acting out behaviors or whether it is children who already have behavioral problems are less likely to have positive teacher-student relationships. Nonetheless, it is important for teachers to develop the skills to have positive relationships with students, even when they present with behavioral challenges, as it may serve to reduce these behaviors and promote positive teacher-student relationships in the future.

Benefits in academic performance & engagement. Children who have conflictual relationships with teachers are less likely to be engaged in the classroom and are more likely to struggle academically (Ladd & Burgess, 2001). Positive relationships with teachers appear to be particularly important for children who struggle with academic demands at school (Eisenhower, Baker, & Blacher, 2007). Teacher-child relationships

appear to promote healthy behavioral outcomes and reduce levels of delinquency and socio-emotional problems among children with learning difficulties (Al-Yagon & Mikulincer, 2004; Murray & Greenberg, 2001; Pianta & Stuhlman, 2004). Although there is no consistent evidence that relationships are able to directly protect against academic underperformance or failure, it is posited that conflictual relationships may exacerbate outcomes for children with academic risk. Therefore, positive teacher-student relationships may provide the foundation to facilitate optimal academic performance for a child's ability level.

Children who develop early positive relationships with their teachers also tend to have better academic outcomes. Specifically, children who had a positive relationship with their kindergarten teachers have better grades and standardized test scores through the fourth grade (Hamre & Pianta, 2001). When a teacher has a more positive relationship with a student, he or she may be more likely to invest extra time and energy in remedial activities for a child who is struggling (Hamre & Pianta, 2001). Additionally, students who have a better relationship with their teachers may feel more comfortable seeking out help (Birch & Ladd, 1997).

Recent Programs to Improve Teacher-Student Relationships

Because of this knowledge of the importance of positive teacher-student relationships, more and more programs are being developed that focus on improving teacher-student relationships. "Banking Time" (Driscoll & Pianta, 2010) is one such intervention, specifically designed to promote a strong, positive teacher-student relationship. This intervention consists of several meetings, solely with the teacher and the student, where the two have a consistent time to positively interact. During this time,

the child leads the interaction, while the teacher acts as more of an observer that listens, accepts, and understands the child's feelings and actions. Specifically, the teacher is expected to observe the child during his or her play, narrate his or her actions, and label his or her feelings, while also developing relational themes. Results of this study indicate that teachers perceived more closeness with their students and noted less conduct problems after engaging in this intervention (Driscoll & Pianta, 2010).

Another program recently developed to promote positive teacher-student interactions is MyTeachingPartner. This program, developed by Pianta, Mashburn, Downer, Hamre & Justice (2008), is an approach to improving teacher-student interactions by providing both access to web-based, video exemplars of high quality teacher-child interactions and a consultation process that provides ongoing, targeted feedback to preschool teachers. Their empirical study showed that access to the web clips only was not associated with positive changes in teacher-student interactions for teachers in high poverty classrooms. Instead, both the web-based video exemplars and the ongoing consultation were needed in order to see positive gains in teacher-student interactions. This suggests that individualized feedback is necessary in order to improve teacher-student interactions.

Coaching as a Teacher Training Method

The studies mentioned above were successful largely because each intervention had another component in addition to teacher training. Historically, in-service trainings focus mostly on didactics, which often yield small effects on improving teacher quality in the classroom (Ball & Cohen, 1999; Birman, Desimone, Porter & Garent, 2000; Garet, Porter, Andrew & Desimone, 2001; Haymore-Sandholtz, 2002). One study interviewed

teachers to inquire why it is difficult for them to implement strategies learned in professional development workshops. Teachers reported "not having an in-depth understanding of the practice," "forgetting how to use it correctly," or "needing a refresher" due to the complexity of the practice among the many other tasks that a classroom teacher must perform (Klingner, Vaughn, Hughes, & Arguelles, 1999, p. 271). Notably, Kretlow, Wood, and Cooke (2009) found that teachers were most likely to *accurately* and *consistently* use skills learned in professional development workshops when teachers received at least one individualized coaching session (2009).

Coaching is defined as a process that occurs after an initial training, such as an in-service training or professional development workshop, where an expert provides individualized support to teachers (Kretlow & Bartholomew, 2010). This model of training is often effective because the expert can provide immediate reinforcement when the targeted skills are used in the setting where instruction typically occurs (Scheeler et al, 2009).

There are two dominant models of coaching in the literature, supervisory coaching and side-by-side (in-vivo) coaching. Supervisory coaching occurs when a supervisor observes a teacher implementing a recently learned technique, records data on the presence or absence of this technique, and then immediately provides individualized feedback to the teacher regarding his or her strengths and areas of improvement (Kretlow & Bartholomew, 2010). Side-by-side, or in-vivo coaching, is a process where an expert, not a supervisor, observes the teacher implementing a recently learned technique, provides feedback in the moment, and may model the practice with students while the teacher observers (Kretlow & Bartholomew, 2010). Both styles of coaching have proven

to be effective in training teachers to use evidence-based techniques in academics (Jager et al., 2002; Kohler et al., 1997; Kretlow et al., 2009; Lignuaris-Kraft & Marchland-Martella, 1993; Maheady et al., 2004; Miller et al., 1991; Morgan et al., 1994; Pierce & Miller, 1994; Stitcher et al., 2006) and in training teachers to have more positive interactions with students (Myers, Simonsen, & Sugai, 2011; Filcheck, McNeil, Greco, & Bernard, 2004; McIntosh, Rizza & Bliss, 2000; Lyon et al., 2009; Gershenson, Lyon & Budd, 2010).

In-Vivo Coaching for Improved Parent-Child Interactions

Unlike with teacher-child interactions, there is a long-standing history of in-vivo coaching to improve parent-child interactions. Hanf (1969, 1973) described a two-stage, mother-child interaction model for modifying child problematic behaviors. She hypothesized that systematically increasing mother-child positive interactions and also teaching effective behavior management techniques would lead to a reduction in these problematic behaviors. The model included two stages: 1. "Child Game" stage, where the child is in control of the play and the parent is in a non-directive play therapist type role; and 2. "Mother's Game" stage, where the mother uses clear commands and effective rewards and punishments to shape her child's behavior. In order to shape the mother's behavior, the therapist provided live feedback to the mother via the bug-in-the-ear system. Hanf (1969) defined this live coaching as "immediate feedback of a verbal and a visual variety" (p. 2). However, there was no clear definition here of the process by which the therapist shaped the mother's behavior.

Adapted from Hanf's model, Parent-Child Interaction Therapy (PCIT) is an evidence-based treatment for disruptive behaviors disorders. The goals of the PCIT are to

improve both the parent-child attachment relationship and the parent's behavior management skills. Parents first learn a child-directed interaction (CDI), where parents use the PRIDE skills (Praise, Reflect, Imitate, Describe, and Enjoy; See Appendix A for more thorough definitions of these skills) in order to strengthen their relationship with their child. Once parents have mastered CDI, they learn a parent-directed interaction (PDI), where they learn and apply specific behavior management techniques (Brinkmeyer & Eyberg, 2003). CDI and PDI mirror the authoritative parenting style by providing both warmth and limits, which is optimal for child development (Baumrind, 1971).

Each phase of treatment begins with a teaching session in which the therapist defines and role plays the CDI or PDI skills. The therapist observes and codes the behaviors of the parent and child during a 5-minute interaction, which helps determine which skills the parents have mastered and which will be important targets for coaching. The therapist then coaches the parent through a "bug-in-the-ear" system, providing reinforcement to shape the parent's behavior while interacting with his or her child. Coaching consists of frequent, brief statements that give parents immediate feedback on their CDI or PDI skills, through praise, suggestions for what to say and how to interact with the child, and interpretations of the current situation (Brinkmeyer & Eyberg, 2003).

PCIT has been shown to be effective in promoting positive parent-child relationships and the key aspect of this intervention is the in-vivo coaching. However, it is possible that in-vivo coaching has no added value in promoting positive outcomes than parent training alone. Eyberg and Matarazzo (1980) studied both parent training formats and newer PCIT model to determine if one training worked more effectively in decreasing their child's problem behaviors. In the didactic training, parents were taught

the principles and application of operant techniques to child management. In the PCIT group, the focuses of training were the rules of CDI and PDI. The therapist taught the mother these principles through description and modeling. Next, the therapist observed and recorded data during the 5-minute parent-child interaction. The mothers were given immediate, personalized feedback showing them the data that were collected during each session (Eyberg & Matarazzo, 1980).

Results from this study suggest that the mothers significantly improved in their use of the PRIDE skills as compared with the didactic training parents and the control parents. At post treatment assessment, children in the PCIT training exhibited less inappropriate behavior than those in the didactic and control conditions. Additionally, the percentage of non-compliant behavior decreased more in the PCIT condition than the other two conditions (Eyberg & Matarazzo, 1980). The results of this study suggest that direct observation of parent-child interactions with immediate feedback and reinforcement is a key contributor to the differences between the treatment groups.

Shanley and Niec (2010) were able to show the importance of the coaching aspect to the success of PCIT, while also further defining specific behaviors of the coach. Coaching focused on shaping parents' use of the targeted skills while also reinforcing the use of the other two skills not selected for focus. The study defined specific behaviors that the coach applied in order to increase the parents' use of the targeted skills: a) providing the parent with verbatim phrases to say to the child; b) praising the parent's use of the verbatim phrase; c) praising the parent's use of any of the three positive parenting skills; d) decreasing the frequency of modeling when the parent used the skill

spontaneously; and e) increasing the frequency of modeling and contingent praise when the parent did not use the skills spontaneously (Shanley & Niec, 2010).

Results indicated that the mothers who received coaching significantly increased their use of positive parenting skills from pre-intervention to post-intervention, whereas mothers who were not coached demonstrated a decline in positive parenting behaviors from pre-intervention to post-intervention. Results also suggest that coaching contributed to the development of parents' skills beyond the parents' initial skill level. Additionally, the results indicate that the skills that were not targeted in the Positive Parenting Skills score did not change, suggesting that coaching was the mechanism that led to the increase of the use of the Positive Parenting Skills.

These studies strongly suggests that providing parents with immediate feedback through in-vivo coaching is a key mechanism for increasing parents' acquisition of skills in PCIT. Since it is one of the key factors in changing parent-child interactions, it is critical that we understand how the coach systematically provides this immediate feedback and reinforcement that leads to change.

In-Vivo Coaching for Improved Teacher-Student Interactions

In-vivo coaching is less documented in the literature in promoting positive teacher-student interactions. However, there is an adaptation of PCIT, called Teacher-Child Interaction Training (TCIT), which does include in-vivo coaching sessions to facilitate positive teacher-student interactions. TCIT includes all major elements of PCIT, with modifications appropriate to a classroom setting. This includes CDI and PDI phases of treatment (although PDI was changed to Teacher Directed Interaction, or TDI), individualized coaching sessions in live interactions, and teaching of the PRIDE skills.

McIntosh, Rizza & Bliss (2000) were one of the first researchers to adapt TCIT from PCIT. Using a case study approach, the researchers found that TCIT was effective in increasing in the teacher's use of the PRIDE skills while also reducing the child's problem behaviors and increased compliance. In addition to the teacher training session of targeted skills, a doctoral student and licensed psychologist provided in-vivo coaching. However, the methods of coaching were not outlined in this article.

Filcheck, McNeil, Greco & Bernard (2004) assessed the effectiveness of both a token economy approach and TCIT in a preschool classroom in order to compare the effects of the two approaches. When implementing TCIT, the teacher used more praise and less critical statements as compared to the "Level System" token economy approach. Notably, an in-vivo coaching approach was used for both the level system phase and the TCIT phase, suggesting that there is something unique to TCIT training and coaching that yielded improved outcomes. Limited coaching data were reported; however, the one discernable discrepancy reported was a difference in coaching time ("Level System" total didactic and coaching time= 4.5 hours; TCIT total didactic and coaching time=11.5 hours, with CDI interventions accounting for 5.5 hours and TDI interventions accounting for 6 hours). It is unclear whether it is simply the time difference in coaching that accounted for the improvement in teacher outcomes or whether it was something unique to TCIT coaching.

The DePaul TCIT model (Lyon, Gershenson, Farahmand, Thaxter, Behling, & Budd, 2009; Gershenson, Lyon & Budd, 2010) expanded on the prior mentioned PCIT to TCIT adaptions in the following ways: 1) by focusing on the whole classroom as a universal prevention program; 2) by collecting extensive teacher behavioral data across a

variety of classroom situations; 3) by extending the program to a more ethnically diverse group of children and teachers; 4) by using a multiple baseline design as an experimental method; and 5) by including a consultative collaboration component to further engage teachers.

Many core elements of PCIT were retained in the DePaul TCIT model. The CDI phase still focuses primarily on building a strong relationship between the children and the teacher, while the TDI phase focuses on effective discipline strategies. Teacher-child interactions are coded using a standardized instrument, the Dyadic Parent Interaction Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2009) and homework is assigned between sessions in order to facilitate skill retention. A key aspect of TCIT, in-vivo coaching, has also been retained. Instead of using an electronic bug from behind a one-way mirror, coaches shadow teachers in the room providing both immediate feedback and as well as written feedback. Coaching occurs at least once per week for a total of 6-8 weeks. Each coaching session lasts approximately 20 minutes.

The DePaul model has shown promising results in facilitating positive teacher-student interactions. Lyon et al. (2009) study showed that teachers' positive attention skills increased following training in CDI. Notably, the greatest improvements in the teachers' use of positive attention skills occurred near the end of the CDI phase, suggesting that both the didactic training and the individualized, in-vivo coaching contributed significantly to these outcomes (Lyon et al., 2009).

These studies highlight the preliminary evidence showing the effectiveness of TCIT for improving teacher-student interactions. All of the above studies include a significant in-vivo coaching component, but with little attention paid to the details of the

coaching process. This highlights the need for more research on the elements of effective coaching as this is a key dimension to the success of the TCIT intervention.

What Makes an Effective Coach? Preliminary Research Findings

A closer look at the coaching literature reveals some preliminary findings on the elements of effective coaching. Borrego and Urquiza (1998) specifically outline characteristics of an effective PCIT coach: 1. Effective coaches are accurate and precise in identifying the behaviors they want to reinforce; 2.Effective coaches need to be consistent in the delivery of the social reinforcement; and 3.Effective coaches give immediate feedback to the parent. This article provided an excellent framework for the theory of what makes an effective PCIT coach. However, their article is entirely based in theory and does not have empirical evidence to substantiate its claims.

Shanley and Niec (2010) provide a summary of the four coaching behaviors used throughout PCIT. Coaches model positive verbalizations for parents, shape parents' appropriate behaviors, contingently reinforce parents for positive behaviors, and extinguish negative parent behaviors. Although Shanley and Niec did not explicitly discuss TCIT, the above mentioned TCIT projects (Lyon et al., 2009; McIntosh, Rizza & Bliss, 2000; Filcheck, McNeil, Greco & Bernard, 2004) presumably used similar techniques.

Shelia Eyberg gives suggestions in the PCIT manual of what makes an effective coach. She suggests that coaches comment after every parent verbalization, while also paying attention to the qualitative aspects of the interaction. She suggests that the coach's comments should include labeled praise, gentle correctives, directives, and observations (Eyberg, 1999). According to Eyberg (2005), there are general coaching guidelines that

effective PCIT coaches adhere to. These guidelines include the following: a) brevity, which is defined as coaches speaking no more than 5 words at a time; b) speed, which is defined as commenting on parent's behavior immediately after it occurs; c) positivity, which is defined as little to no criticisms; and d) accuracy, which is defined as correctly identifying the parent's behaviors.

Kretlow & Bartholomew (2010) identified three critical components of studies that successfully used coaching as a method to increase teachers' use of a targeted skill. First, teachers received the initial training on the targeted skill in a group format where they were provided with an overview of the targeted skill and also participated in numerous engaging, practice activities. Second, teachers received multiple observations during their routine classroom activities, which may have prompted the teachers to implement the practice more regularly as they knew they were being watched. Third, teachers received individualized feedback based on the observations collected while in their classrooms.

Purpose of Current Study

The above studies begin to shed light on aspects of teacher training and coaching that contribute to improved use of targeted skills in the classroom. A common thread through this literature is that coaching is a key component to the effectiveness of these programs, particularly TCIT (Lyon et al., 2009; Gershenson, Lyon & Budd, 2010). However, this dimension of coaching, including what makes an effective TCIT coach has not be systematically explored. The purpose of the current study is two-fold: a) to support the research on the effectiveness of the DePaul TCIT method in preschool classrooms and b) to analyze the elements of the TCIT expert coach's method.

Hypotheses

1. *Changes in Teacher Behavior*. Teachers who receive the TCIT training will increase their use of the PRIDE skills and decrease their use of the "Avoid" skills.

2. *Changes in Student Behavior.* Students in classrooms of teachers who receive the TCIT training will show a decrease in disruptive behaviors, as defined by the REDSOCS coding system.

3. *Changes in Teacher Report of Children's Behavior.* Students will show a decrease from pre-intervention to post-intervention ratings of student behavioral problems (as measured by the Behavior Concerns scale of the DECA-P2). Students will also show an increase from pre-intervention to post-intervention ratings of students' adaptive behaviors (as measured by the Initiative, Self-Regulation, Attachment/Relationships, and Total Protective Factors scale of the DECA-P2).

4. *Primary Use of PRIDE skills*. The coach will use the PRIDE skills (LP1, LP2, and LP3) more than the other types of coaching comments throughout all phases of the intervention.

5. *Content Change over Time*. There will be a change in the content of the coach's statements, from a focus on the PRIDE skills (LP1, LP2, and LP3) to more higher order (HO) statements.

6. *Content Change from CDI to TDI stages*. There will be a change in the content of the coach's statements from CDI to TDI. During CDI, the coach will likely use more PRIDE skills (LP1, LP2, and LP3), while during TDI the coach will likely use more direct commands (DC) and higher order (HO) statements.

Method

Part 1: Replicating the DePaul TCIT Method in Preschool Classrooms

Participants and setting. This research study was conducted in a public elementary school in rural Virginia from February 2014 to June 2014. This elementary school is a Title I school, indicating that a high percentage of students come from lower income families. 56% of the students are eligible for free lunch and 7% of students are eligible for reduced lunch. The school consists of 57% Caucasian students, 34% Hispanic students, 6% African-American students, 4% Asian-American students, and 1% of students who do not fit into these categories. Two preschool classrooms were selected by the school principal to participate in the intervention. All teachers and instructional assistants joined the project voluntarily and were informed that the principal would not see individual teacher data and it would not be used for performance evaluations. Five teachers across two classrooms participated in this study. In Classroom A, a teacher and two instructional assistants participated in this study. This classroom's head teacher and one instructional assistant had previously been trained in TCIT but wished to continue their training. In Classroom B, the teacher and instructional assistant participated. Each class had about 18-20 students, ages three to five. Each teacher and instructional assistant was assigned a number so their names were not used on any data sheets.

Consent was obtained from the parents of the student participants through an "opt-out" method. A letter was given to all parents during parent-teacher conferences in November 2013 by the classroom teachers. This letter, in both English and Spanish, described the purpose and procedures of the study (see Appendix B) and clearly offered an opportunity for them to opt out if they did not want their child to participate.

Additionally, teachers followed up with the parents to ensure that they understood the study and agreed to have their child participate. If a child's parent did not want their child to participate, data would not be collected for that individual child. However, the classroom as a whole was still able to participate in the intervention as it is deemed professional development for the teacher. All families agreed to participation in this research.

Both classrooms were approximately 50 square meters in size, with multiple stations throughout the classroom. Both classrooms followed a similar morning schedule at the time of data collection, from 9:30am-11:25am. The school day began with a "Circle Group" on the carpet in the front of the room. "Circle Group" included calendar time, other various greeting rituals, and a story read aloud by the teacher. After this instructional time, they transitioned to "Center Time," where students were allowed to play freely at a station, such as building blocks, computer games, picture books, or dress-up clothes. Often, one of the stations included the teacher or instructional assistant teaching a particular activity or performing small assessments with individual students. Last was "Clean Up," where the teacher gave instructions of how to clean up their stations.

Experimental design. This study used a multiple baseline design to evaluate the teachers' acquisition of the PRIDE skills as well as reduction of "Avoid" behaviors (See Appendix A). Specifically, it is a multiple baseline across behavior skill sets and across classrooms, where the training intervention was introduced sequentially in a manner allowing the effects of the intervention to be assessed in the first skill set while no changes are implemented in the second skill set. Subsequent delayed intervention in the

second skill set replicates the effects of changes in the first skill set but, with the delayed introduction of procedures, this controls for the effects of experience and history without the targeted intervention. In this design, changes in the dependent variable occur only when changes in the independent variable are implemented and at no prior time even while the intervention occurs at different times for different classrooms. This design allowed each skill set to be its own control with comparisons of change from baseline to TCIT on multiple variable dimensions and reduced threats to internal validity by the sequential introduction of the independent variable across time (Kazdin, 2011).

Baseline. During baseline, undergraduate and graduate student observers recorded eleven teacher behaviors and six student behaviors (see Table 1 and 2 for descriptions) before the introduction of the intervention. The purpose of baseline was to have a basis for comparison after the intervention was implemented. Baseline data collection occurred for at least one month (2-4 days/week for two hours each) in order to have sufficient data for comparison.

Intervention.

Teacher training. There were three teacher trainings across the intervention led by a licensed clinical psychologist/licensed behavior analyst and a team of doctoral students. In order to build a sense of community and rapport, a former TCIT teacher participant who was pleased with the program and who works closely with the current teacher participants was in attendance at the trainings. The first teacher training, Child Directed Interaction included an overview of TCIT and its components. Each teacher received a binder of training materials, which included worksheets with overview information and practice materials. These materials included the introduction of the PRIDE skills [Praise,

Reflection, Imitate, Describe and Enjoy]. The behavior skill sets targeted during CDI were praise, reflective statements, behavior descriptions, reduction of negative talk, reducing unnecessary questions and commands, and differential social attention (see Appendix A for these training materials). During this time, teachers also watched demonstrations that modeled CDI skills and practiced coding the behaviors in role plays with other teachers and the doctoral students. The session ended with a homework assignment for the week to practice the new skills. There were separate CDI training sessions for each classroom, in order to use the second classroom as a comparison for the multiple baseline design.

The third teacher training, Teacher Directed Interaction (TDI), consisted of teaching the difference between direct commands and indirect commands, using effective command sequences, following through on commands, and a "Sit and Watch" procedure. The "Sit and Watch" procedure is a behavior management technique to use when children are engaged in an unacceptable behavior, such as hitting. When following this procedure, children who engaged in inappropriate behavior have to sit and watch the activity from a few meters away for a few minutes. Similarly to CDI, teachers watched demonstrations of TDI skills, participated in role plays, and completed a homework assignment (see Appendix D for training materials).

Coaching. Coaching was conducted by a licensed clinical psychologist/licensed behavior analyst who has over 30 years of in-classroom coaching experience, eight years of PCIT experience, four years of TCIT experience, and also received training in coaching through the PCIT International Conference. In-classroom coaching began immediately after CDI training and occurred once a week. Each coaching session was

approximately 25 minutes, with five minutes of observation, fifteen minutes of coaching

through the "bug-in-the-ear" device, and five minutes of feedback.

As noted in both PCIT and TCIT literature, the purpose of in-vivo coaching is to

reinforce skills learned and provide additional prompts when appropriate. Coaching

occurred during "Circle Time," "Centers Time," and "Clean Up Time." For a list of

coaching guidelines, see Appendix E.

Dependent variables.

Teacher & student behavioral observations. Adapted from the Dyadic Parent-

Child Interaction Coding System- Third Edition (DPICS 3rd ed, Eyberg et al., 2005)

manual, there were eleven teacher behaviors that were recorded using 10-second intervals

for 2-minute samples during "Circle Time," "Centers Time," and "Clean Up Time" (see

Appendix F for interval recording sheet). These behaviors and their operational

definitions are described below in Table 1. More detailed descriptions of these behaviors

are outlined in the DPICS 3rd edition manual.

Table 1

Measured Teacher Behaviors

Behavior	Operational Definition
(NTA)Negative Talk	A verbal expression of disapproval of the child or the child's attributes, activities, products, or choices. Negative talk also includes sassy, sarcastic, rude, or impudent speech
(DC)Direct Command	A declarative statement that contains an order or direction for a vocal or motor behavior to be performed and indicates that the child is to perform this behavior.
(IC)Indirect Command	A suggestion for a vocal or motor behavior to be performed that is implied or stated in question form.
(LP)Labeled Praise	Provides a positive evaluation of a specific behavior, activity, or product of the child.
(UP)Unlabeled Praise	Provides a positive evaluation of the child, an attribute of the child, or a nonspecific activity, behavior, or product of the child.
(QU)Question	A verbal inquiry that is distinguishable from a declarative statement by having a rising inflection at the end and/or by having the sentence structure of a question. Questions request an answer but do not suggest that a behavior is to be performed by the child.
(RF)Reflective Statement	A declarative phrase or statement that has the same meaning as a preceding child verbalization. The reflection may paraphrase or elaborate on the child's verbalization but may not change the meaning of the child's statement or interpret unstated ideas.
(BD)Behavior Description	A non-evaluative, declarative sentence or phrase in which the subject is the other person and the verb describes that person's ongoing or immediately completed (< 5 sec.) observable verbal or nonverbal behavior.
(PTO)Positive Touch	Any intentional positive physical contact between teacher and child.
(PR) Prompting child to follow through	If child does not begin to comply or answer a teacher's command or question within 5 seconds, teacher follows up by repeating the command or question no more than one time, physically gesturing (e.g., pointing) to encourage the expected response, physically guiding the child, or stating an if-then consequence such as "when you brush your teeth you can go to recess."
(CL)Closing the loop (correctly)	After a teacher directs a command or question to an individual child (or after a group command or group question, directs the command or question specifically to an individual child), the child begins to comply or answers within 5 seconds; then within 15 seconds of compliance, beginning of compliance, or answering, the teacher closes the loop with praise (labeled or unlabeled), reflection, behavior description, or positive touch.

In addition to teacher behaviors, student behaviors were also recorded. Whole classroom sampling, instead of individual student behaviors, were utilized. The following six student behaviors were recorded using 10-second intervals for 10-minute samples during "Circle Time" (see Appendix F for interval recording sheet). These behaviors are adapted from the Revised Edition of the School Observation Coding System (REDSOCS, Ginn, Seib, Boggs & Eyberg, 2009) and are listed below in Table 2 (see Appendix E for interval recording sheet).

Table 2

Measured Child Behaviors

Behavior	Operational Definition
Yelling (Y)	Loud screeching, screaming, or shouting. The sound must be loud enough so that it is clearly above the intensity of normal indoor conversation. Yelling or loud voices are not coded as inappropriate during outdoor activities.
Destructive Behavior (DB)	A behavior during which the child damages or destroys an object or threatens to damage an object (verbally). Do not code destructiveness if it is appropriate within the context of the play situation (i.e., ramming cars in a car crash).
Aggressive Behavior (AB)	Includes fighting, kicking, slapping, hitting, pushing, shoving, grabbing an object roughly from another person, or threatening (verbally) to do any of the preceding.
Crying (C)	Inarticulate utterances of distress (e.g., audible weeping) that may or may not be accompanied by tears.
Talking Out of Order (TO)	Any talking when the class has been instructed to be silent unless called on to speak. This includes situations in which a "classroom rule" exists that silence is to be maintained (i.e. the teacher does not have to give the instruction explicitly-the expectation for silence is sufficient). Examples include whispering to a neighbor, calling out to another child, answering a question directed to someone else, answering a question by yelling out when it is clear that the children are expected to raise their hand to speak, and talking, singing, or humming to themselves.
Being Out of Area (BA)	Coded when a child leaves the area to which he or she is assigned without permission. Examples include standing up when the rest of the class is seated, leaving his or her desk, approaching the teacher without permission, or playing with a toy that is not in the child's assigned work area. The behavior must be appropriate for the context or classroom norms (e.g. in some classroom children are allowed to walk to the teacher's desk to obtain help with an assignment).

A team of undergraduate and graduate student observers recorded both teacher

and child behaviors. All observers were thoroughly trained on the DPICS and REDSOCS

coding systems. Over the course of this project, from January 2014 to June 2014,

observers participated in didactic meetings that consisted of reviewing the DPICS and

REDSOCS manual, practicing coding from role-plays and videos, and completing

worksheet assignments from the DPICS manual.

After Institutional Review Board (IRB) consent was obtained, observers and the

coach visited each classroom in order for the teachers and students to become habituated

to their presence. Observers were instructed to have as little contact with the students and teachers as possible so that they do not interfere with the normal classroom environment.

Data were collected four days a week (Monday, Tuesday, Wednesday, and Friday) from approximately 9:30 to 11:25 in the morning. Observers recorded teacher data on 10-second intervals for two minute time periods. All observers were provided with a recording that signaled the end of each interval on their personal iPods. The schedule was randomized to ensure appropriate sampling of teachers' behaviors. There were 3-4 observers present each day.

Interobserver agreement. Approximately 20% of the observations collected for both teacher and student behaviors were coded in order to calculate interobserver agreement (IOA). IOA coding was clearly marked on the data sheets. The coders used a splitter that enabled both coders to listen to the same 10 second interval track, while also standing approximately one meter apart so that they could not view each other's data sheets. Interobserver agreement was calculated using Cohen's Kappa (Cohen, 1988), which is computed by calculating the percentage of agreement between two raters and then subtracting the total probability that each rater would make a certain rating. The difference is then divided by one minus the chance probability. Kappa is considered more stringent than other measures of IOA (Kazdin, 2011) as it corrects for chance agreement among two observers and allows for use with several categories (Bryington, Palmer, & Watkins, 2004; as cited in Lyon, et al., 2009). Descriptions of the meaning of Kappa values are outlined below.

Table 3

Kappa Values Defined (Landis & Koch, 1997)

Kappa Value	Description
.00-.20	Slight
.21-.40	Fair
.41-.60	Moderate
.61-.80	Substantial
> .81	Almost Perfect

Kappa was calculated for each of the teacher and child behaviors measured, as shown below in Tables 4 and 5 below.

Table 4

Interobserver Agreement for Teacher Behaviors

Teacher Behaviors	Kappa
Questions (QU)	.732
Unlabeled Praise (UP)	.645
Labeled Praise (LP)	.633
Direct Command (DC)	.633
Reflections (RF)	.630
Negative Talk (NTA)	.604
Positive Touch (PTO)	.600
Indirect Commands (IC)	.565
Closing the Loop (CL)	.511
Prompting (PR)	.499
Behavior Description (BD)	.458

Table 5

Interobserver Agreement for Child Behaviors

Child Behaviors	Kappa
Yelling (Y)	N/A*
Destructive Behavior (DB)	N/A**
Aggressive Behavior	N/A**
Crying (C)	N/A**
Talking Out of Order (TO)	.701
Being Out of Area (BA)	.770

Note. *Only one recorded instance of Y during interobserver reliability scoring. Not enough data to calculate kappa.
**No recorded instances of DB, AG, or C to calculate kappa

Standardized measurement of student behavior. Teachers and instructional

assistants were asked to complete a Devereux Early Childhood Assessment for

Preschoolers, Second Edition (DECA-P2) for each student. The DECA-P2 was used pre-

intervention and post-intervention in order to assess the students' social and behavioral

competence. The DECA-P2 is a nationally normed assessment of within-child protective

factors in preschool children aged three to five. The DECA-P2 contains 38 items, with 27

items addressing within-child protective factors and 11 items that serve as a behavioral

concerns screener. The DECA-P2 consists of three protective factors, a composite of the

three scales and a behavior concerns scale. Typical items include "chooses to do tasks

that are challenging for him/her," "shows patience," and "asks adults to play with or read

to her/him." These items were derived from the childhood resilience literature and

through focus groups conducted with parents and early childhood professionals. The

assessment asks the rater to rate the child on these behaviors based on how often the child

performed that behavior "during the past four weeks" (See Appendix G for DECA-P2

questions).

Table 6

DECA-P2 Scales

Scale	Defined
Initiative (IN)	Assesses the child's ability to use independent thought and action to meet his or her needs
Self-Regulation (SR)	Measures the child's ability to experience a range of feelings and express them using words and actions that society considers appropriate
Attachment/Relationships (AT)	Assesses the mutual, strong and long-lasting relationship between a child and significant adults such as parents, family members and teachers
Total Protective Factors (TPF)	Composite of Initiative, Self-Regulation, and Attachment/Relationships; overall strength of child's protective factors
Behavior Concerns (BC)	Addresses social and emotional problems

Part 2: Detailed Analysis of Coaching

The second aspect of the study is the detailed analysis of the dimension of coaching, which is the primary purpose of this project.

Participants and setting. The coaching aspect of this research study was conducted in the same public elementary school as Part 1 from February 2014 to June 2014. The TCIT coach was a licensed clinical psychologist/licensed behavior analyst who has extensive experience with the "bug-in-the-ear" coaching technique of TCIT. Additionally, the same teachers from Classroom A and B were participants in part two of the study.

Quantitative measurement of coaching behaviors. The coaching dimension of the teacher training was analyzed through multiple methods. There are eleven coaching behaviors that were recorded using a 10-second interval system (based on Rossi, Studivant, Vetter & Stokes, 2013; Barkaia & Stokes, 2014; see Appendix I). There were

two graduate student observers who recorded these behaviors during the coach's "bug-in-the-ear" coaching session with the teacher. These behaviors and their operational definitions are described below in Table 7. More examples of these coaching statements can be found in Appendix I.

Table 7

Coaching Behavior Definitions

Coaching Behavior	Operational Definition
Labeled Praise for LP/RF/BD/PTO (LP1)	Coach provides a positive evaluation of the teacher, specifically addressing the teacher's behavior for a labeled praise, reflection, behavior description, or positive touch. Ex: "Nice labeled praise."; "Great reflection."; "Good description."; "I really like the way you told Johnny that you like the way he is coloring."
Labeled Praise for Other Positives, UP/ Enjoyment/Imitation (LP2)	Coach provides a positive evaluation of the teacher, specifically addressing the teacher's behavior for other positive behavior, unlabeled praise, enjoyment or imitation of the students. Ex. "Nice job praising Johnny." "Nice use of enthusiasm."
Labeled Praise for Appropriate Use of DC/Q/NT/Planned Ignoring (LP3)	Coach provides a positive evaluation of the teacher, specifically addressing the teacher's behavior for appropriately using direct commands, questions, neutral talk or planned ignoring. Ex. "Nice use of a direct command." "Nice job not giving Johnny attention for his minor misbehavior."
Unlabeled Praise (UP)	Coach provides a positive evaluation of the teacher, or a nonspecific behavior of the teacher. Ex. That was great!", "Good."; "Excellent.", "Nice.", "You are doing well."
Descriptive Label (DL)	Coach describes teacher behavior in a non-evaluative way. Ex. "You are waiting." "That was a reflection." ;"That was an unlabeled praise."
Indirect Command (IC)	Coach provides a suggestion for a vocal or motor behavior to be performed that is implied or stated in question form. Ex. "Could you be more specific?"; "That was a question, wasn't it?"
Direct Command (DC)	Coach provides a declarative statement that contains an order or direction for a particular vocal or motor behavior to be performed. Ex. "Describe what Jane is doing." "Look around to see what's happening."; "Say, 'you're sitting nicely, choose the center you want to go to."
Closing the Loop (CL)	Coach provides a positive evaluation of the teacher closing the loop. Ex. "Great follow through after that answer." "That's the way to close the loop following a command or question."
Higher Order (HO)	Coach provides an evaluative statement commenting upon management issues that are general evaluations of teaching style or actions beyond use of PRIDE skills and simple interaction consequences. Ex. "This temporary increase in inappropriate behavior is a result of you shifting attention to other more appropriate behavior." "It is good how you keep an eye on all activities in the classroom."; "The children really enjoyed that story."; "Perfect timing in your feedback."; "Your cues are helping her learn patience."
Critical Statement (CS)	A negative statement of the teacher's behavior. Ex. "No, stop repeating your question."; "That was a critical statement."; "Don't ask so many questions."; "Stop giving so many commands."
Incorrect Statement (IS)	Incorrectly identifying the teacher's behavior in any way. Ex. "Great labeled praise." (When the praise is unlabeled.)

The two graduate student observers were thoroughly trained on the DPICS coding systems. These two students developed the coaching behavior definitions outlined in Table 7 and practiced coding before collecting data to encourage more accurate recording and higher IOA.

After IRB consent was obtained, these observers and the coach visited each classroom in order for the teachers and students to become habituated to their presence. Observers were instructed to have as little contact with the students and teachers as possible so that they do not interfere with the normal classroom environment.

Coaching data were collected twice per week from approximately 9:30 to 11:25 in the morning. Observers were recording coaching data on 10-second intervals for fifteen minute time periods. All observers were provided with a recording that will signal the end of each interval on their personal iPods.

Interobserver agreement. Approximately 40% of the observations collected for the coaching behaviors were coded in order to calculate IOA. All IOA coding was clearly marked on the data sheets. The coders used a splitter that will enable both coders to listen to the same 10 second interval track, while also standing approximately one meter apart so that they could not view each other's data sheets. Interobserver agreement (IOA) was calculated using point-by-point occurrence agreement, as there was not enough data to calculate Cohen's kappa. Point-by-point occurrence agreement is calculated by comparing interval by interval between the two observers when at least one observer scored an occurrence of a measured behavior. This type of IOA is typically used with interval data with low-rate behaviors as to not inflate IOA with nonoccurrence intervals (Kazdin, 2011).

Table 8

Interobserver Agreement on Occurrences for Coaching Behaviors

Coaching Behaviors	% Point by Point Occurrence Agreement
Labeled Praise for LP/RF/BD/PTO (LP!)	93%
Labeled Praise for Other Positives, UP/Enjoyment/Imitation	85%
Labeled Praise for Appropriate Use of DC/Q/NT/Planned Ignoring	(100% for nonoccurrence)
Unlabeled Praise (UP)	90%
Descriptive Label (DL)	84%
Indirect Command (IC)	75%
Direct Command (DC)	75%
Closing the Loop (CL)	(100% for nonoccurrence)
Higher Order (HO)	86%
Critical Statement (CS)	83%
Incorrect Statement	(100% for nonoccurrence)

Results

Part 1: Replicating the DePaul TCIT Method in Preschool Classroom

Visual analysis of teacher and student behaviors. In a multiple baseline design, a visual analysis of graphs is regarded as the most stringent way to evaluate the effects of the intervention (Kazdin, 2011). According to Parsonson (2003), a "fine-grained visual analysis" contains six major characteristics:

1. Analysis of changes in level within and between phases

2. Analysis of changes in trend within and between phases

3. Analysis of changes in variability or stability in the data path within and between phases

4. Analysis of patterns or sequences in the data within and between phases

5. Analysis of range and overlap of scores or data points between phases

6. Analysis of number of data points in a phase

Parsonson's fine-grained visual analysis techniques were used in order to determine the effects of the intervention on teacher and student behavior.

Data were entered into a secure database with no identifiable information. Additionally, the data were aggregated by child or teacher data in order to protect confidentiality. Results are reported by the total percentage of intervals in which the behavior occurred for each behavior each day. The graph presents the percentage of intervals along the y-axis and the session on the x-axis.

Teacher behavior. The following section includes the data on the teacher's acquisition of the PRIDE skills as well as reduction of "Avoid" behaviors. All teachers were observed on eleven target behaviors/skills throughout the study.

Teachers' PRIDE skills acquisition. Before the intervention, both classrooms were already using positive behaviors as measured by the PRIDE skills. During the baseline condition, Class A teachers used PRIDE skills an average of 21% of intervals while Class B teachers used PRIDE skills an average of 17% of intervals. Both classrooms demonstrated an increase from baseline use of PRIDE skills to the CDI phase, after they were explicitly taught these skills. During CDI, teachers in Class A used PRIDE Skills an average of 33% of intervals, with Class B averaging 37% of intervals. These levels were dropped slightly in TDI, with Class A and B performing PRIDE Skills in an average of 29% of intervals. However, these levels are still higher than those during baseline. These levels were continued during the maintenance no-coaching phase, with

Class A performing PRIDE skills during an average of 28% of intervals and Class B performing PRIDE skills on average of 31% of intervals (Figure 1).

Additional information can be gained by analyzing the daily rates of PRIDE skills (Figure 2). With Class A, the highest rates of using the PRIDE skills were obtained on coaching days, especially during CDI when the coach was specifically focusing on those skills. For Class B, two of the highest points were obtained on coaching days, with the highest point being obtained the day after the first CDI coaching day.

For Class A, there is little overlap between the points in baseline and most of the points in CDI, showing an overall change of level. However, there is more variability in data points in CDI, mostly around the coaching days. For TDI, there is also more variability than in baseline with points dropping back down to lower levels at the end of TDI. However, notably, Maintenance levels of PRIDE skills are higher than those in baseline.
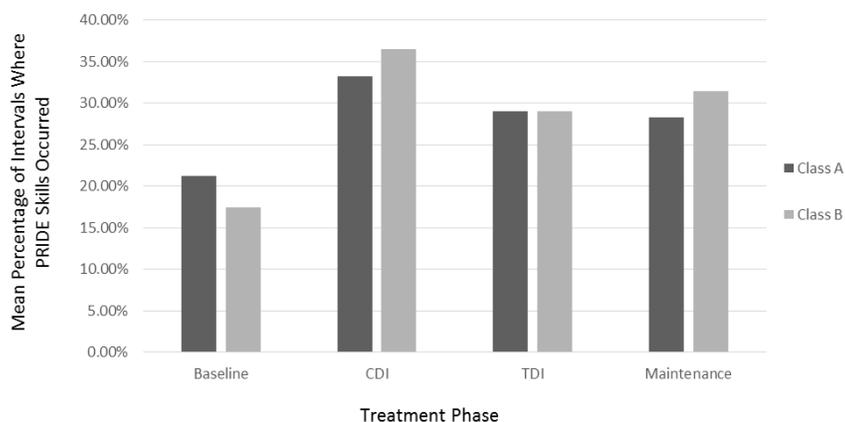
Figure 1. Mean Rate of PRIDE Skills per Condition
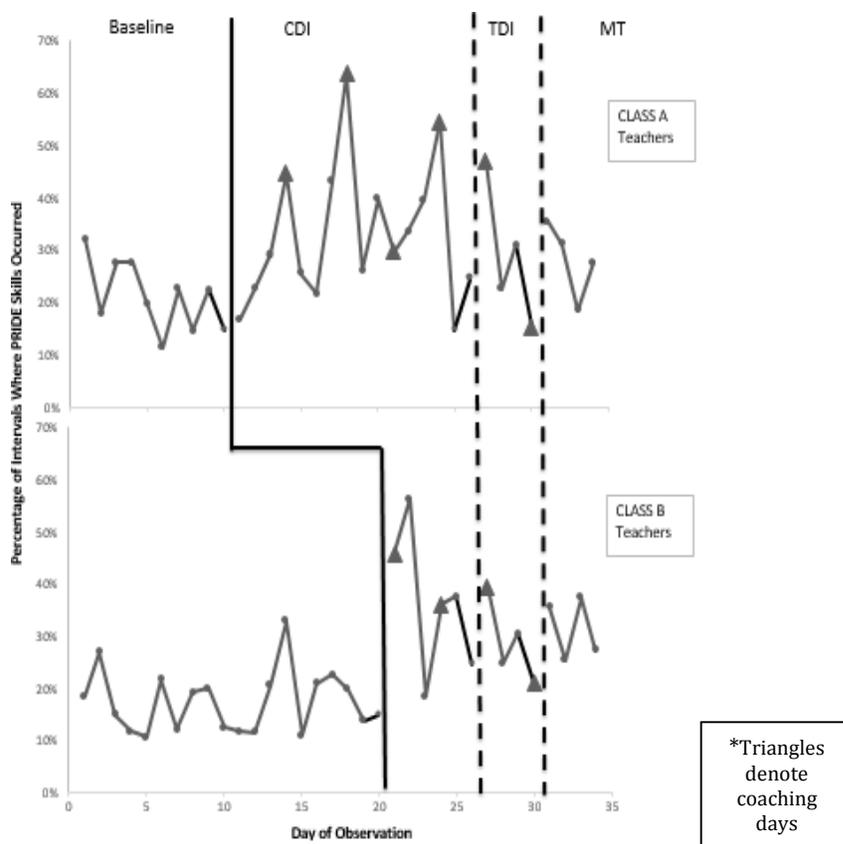
Figure 2. Daily Rates of PRIDE Skills

Teachers' use of praise. A more detailed analysis was conducted, evaluating each individual PRIDE skill. First, Total Praise (Labeled + Unlabeled Praise) was analyzed. In the baseline condition for Class A, teachers provided Praise in an average of 11% of intervals. For Class B, teachers provided Praise in an average of 8% of intervals. There was a slight change in overall use of Praise during CDI for Class A, increasing average use of Praise to 13%. For Class A, there was a more dramatic shift, increasing average use of Praise to 16%. There was a decrease in use of Praise during TDI in both classrooms: 11% for Class A and 13% for Class B. This level of Praise was also observed during the Maintenance phase: 13% for Class A and 14% in Class B (Figure 3).

Additional information can be gained by analyzing the daily rates of Total Praise (Figure 4). For Class A, there is not a notable difference between the phases with each daily point. However, there was a downward trend in baseline and a slight upward trend in CDI. However, with Class B, there is a noticeable shift in level from Baseline to CDI.
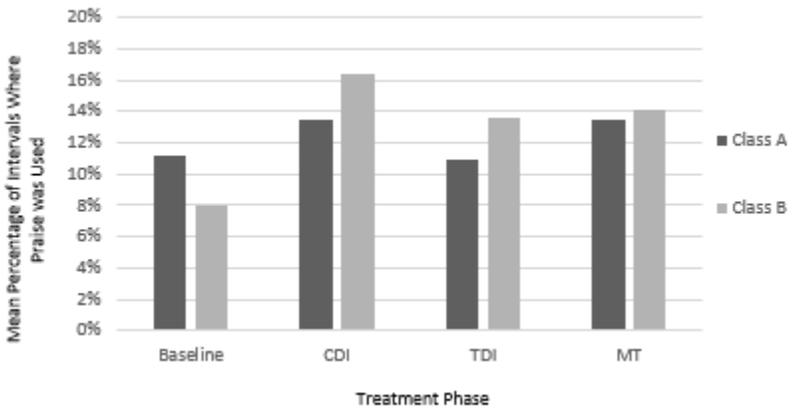
Figure 3. Mean Rates of Total Praise per Condition
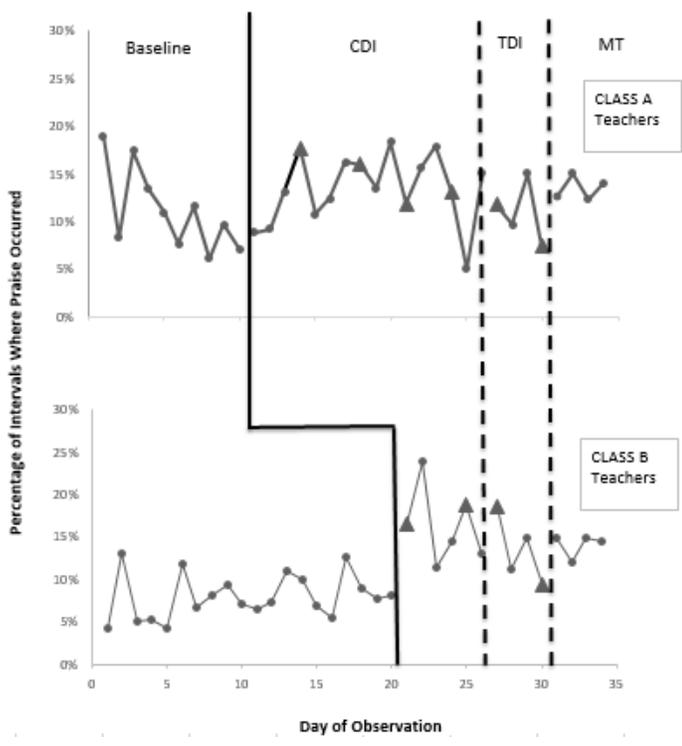
Figure 4. Daily Rates of Total Praise

During the CDI training, teachers overall were encouraged to increase their overall levels of Praise. Additionally, teachers were taught the difference between Labeled Praise and Unlabeled Praise and were encourage to use the former as often as possible. The data below separates Praise into Labeled Praise and Unlabeled Praise.

Labeled praise. In the baseline condition for both classrooms, teachers used Labeled Praise during an average of 2-3% of intervals. Both classroom demonstrate an overall increase in Labeled Praise during CDI: Class A used Labeled Praise in an average of 5% of intervals where Class B used Labeled Praise in an average of 6% of intervals. During TDI, Class A's use of Labeled Praise dropped slightly below baseline levels. However, Class B use of Labeled Praise in TDI was comparative to CDI levels around 7%. Both classrooms demonstrated an overall increase in use of Labeled Praise from baseline to maintenance (Figure 5).

Additional information can be gained by analyzing the individual daily rates of Labeled Praise (Figure 6). For Class A, there is more variability in use of Labeled Praise in CDI than in Baseline. The day with the highest rates of Labeled Praise was a coaching day. For Class B, there is a change in level between Baseline and CDI, with only two overlapping points. The first coaching day, denoted with a triangle, shows a large increase from Baseline levels.
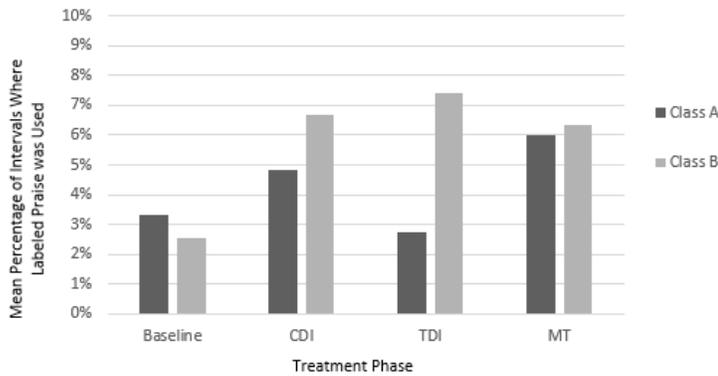
Figure 5. Mean Rate of Labeled Praise per Condition
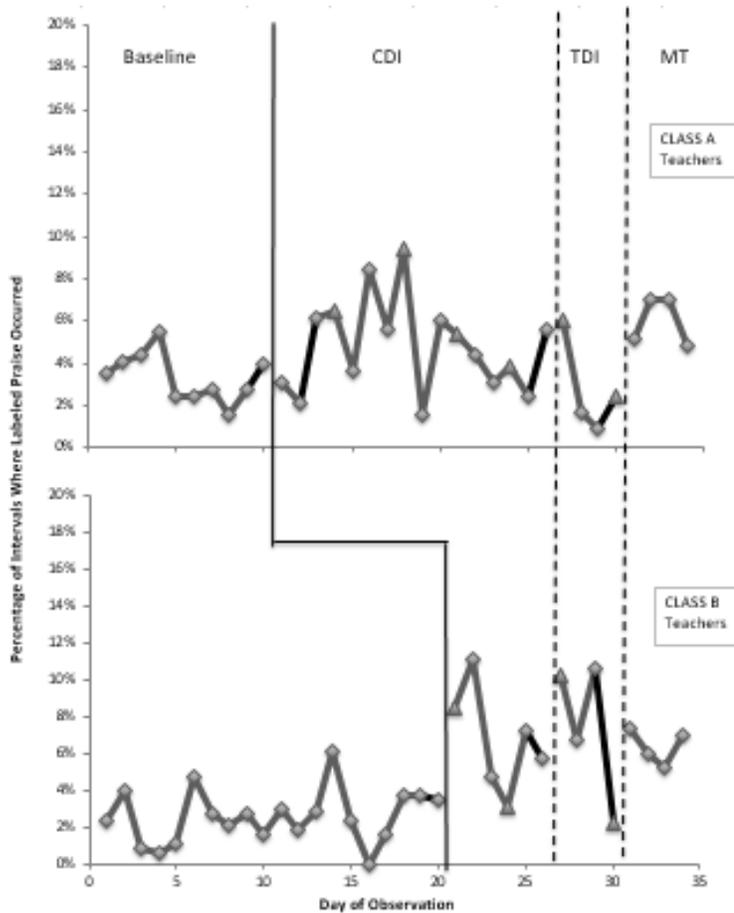
Figure 6. Daily Rates of Labeled Praise

Unlabeled praise. In the baseline condition for both classrooms, teachers used

Unlabeled Praise during an average of 8% of intervals for Class A and 5% of intervals for

Class B. During CDI, there was no substantial change for Class A where Unlabeled Praise was used an average of 8% of intervals. In Class B, Unlabeled Praise was used in an average of 9% of intervals in CDI, which is an increase from baseline. Class A remained at the same rate of Unlabeled Praise for both TDI and Maintenance phases around 8% of intervals. Class B dropped to 6% and 7% of intervals with Unlabeled Praise in TDI and Maintenance phases, respectively (Figure 7).

Additional information can be obtained by analyzing the daily rates of Unlabeled Praise (Figure 8). For Class A, there is no change in level or variability between Baseline and CDI phases. However, there is a downward trend in Baseline and a slight upward trend in CDI. Interestingly, the coaching days had some of the lowest rates of Unlabeled Praise. Because the coach focused on changing Unlabeled Praises into Labeled Praises, you can compare to the Labeled Praise graph and see that those coaching days had slightly higher rates of Labeled Praise.
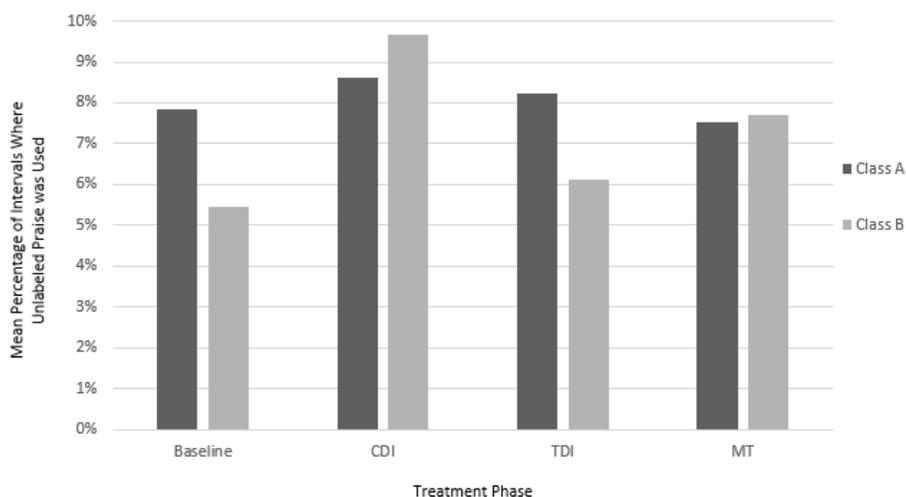
Figure 7. Mean Rates of Unlabeled Praise per Condition.
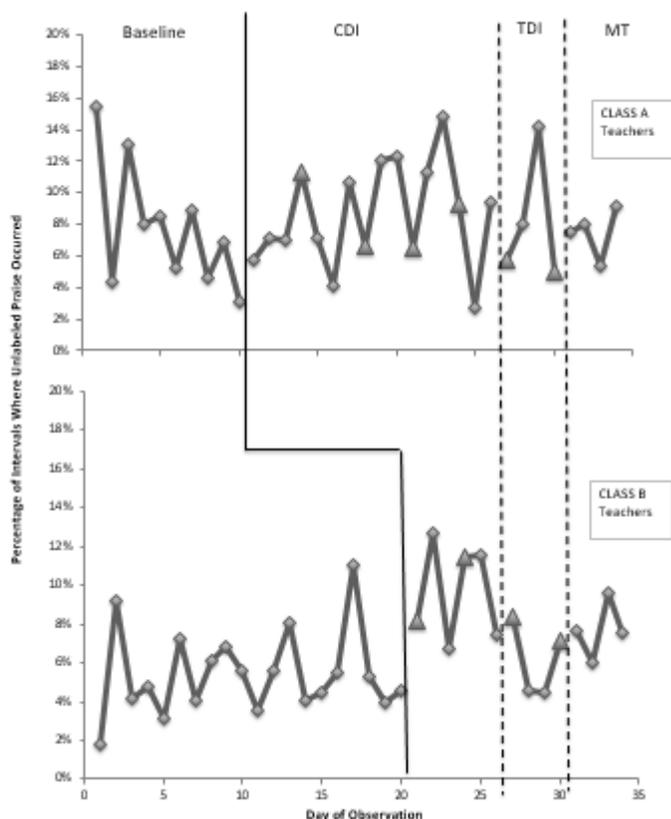
Figure 8. Daily Rates of Unlabeled Praise.

Teachers' use of reflections. In the baseline condition for both classrooms, teachers used

Reflections during an average of 7% of intervals. During CDI, the use of Reflections

increased to approximately 10% for Class A and 9% to Class B. During TDI, there was

another slight increase to approximately 12% for Class A, but a substantial decrease on

average to around 6% for Class B. During the Maintenance phase, Class A's use of

Reflections decreases to baseline levels (around 7%) and increase to approximately 10%

for Class B (Figure 9).

Additional information can be obtained by analyzing the daily rates of Reflections

(Figure 10). For Class A, there is an overall increase in level in CDI as compared to

Baseline. However, there are a considerable amount of points that overlap between the

two conditions. Among the highest points of the daily rates of Reflections were on

coaching days, denoted by the triangle points on the graph. There is also significantly more variability in rates of Reflections in CDI than in Baseline. For Class B, there is an increase between the last point in Baseline and the first point in CDI, a coaching day. However, there is also considerable overlap in points between Baseline and CDI. Again, among the highest points in CDI were coaching days.
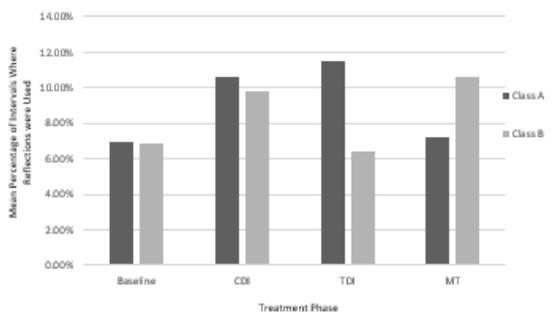
Figure 9. Mean Rates of Reflections per Condition
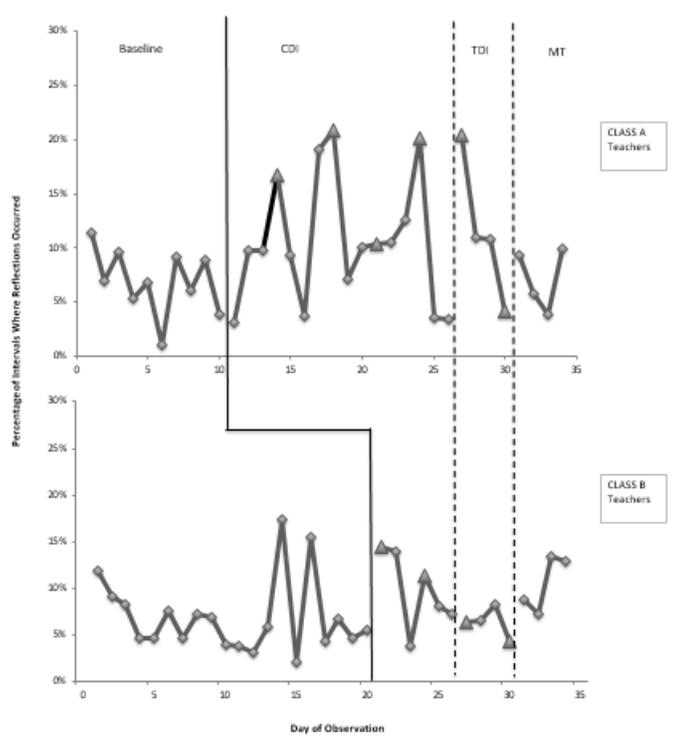
Figure 10. Daily Rates of Reflections

Teachers' use of behavior descriptions. In the baseline condition for both classrooms, teachers used Behavior Descriptions during an average of 1% of intervals. During CDI, the use of Behavior Descriptions increased to approximately 5% for Class A and 7% for Class B. During TDI, there was a decrease to 3% for Class A and a slight decrease on average to 5% for Class B. During the Maintenance phase, Class A's use of Behavior Descriptions decreases to baseline levels (around 2%); however, Classroom B's use of Behavior Descriptions remain around 5% on average (Figure 11).

Interestingly, more specific information can be gathered by analyzing the daily rates of Behavior Descriptions. Coaching days, denoted with a triangle point on the Figure 12 below, have the highest rates of Behavior Descriptions for Class A and among the highest for Class B. There is also an overall change of level between Baseline and CDI for Class A. Additionally, there is also greater variability in CDI than in Baseline, mostly due to the outlier coaching day points. For Class B, there is an overall change in level between Baseline and CDI phases. Notably, there are limited overlapping points between the two conditions in Class B.
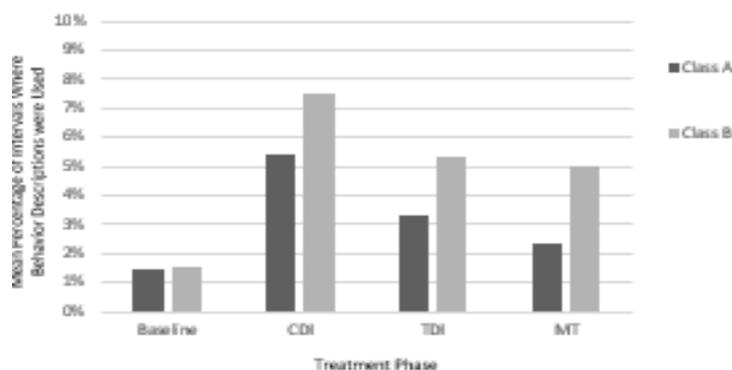
Figure 11. Mean Rates of Behavior Descriptions per Condition
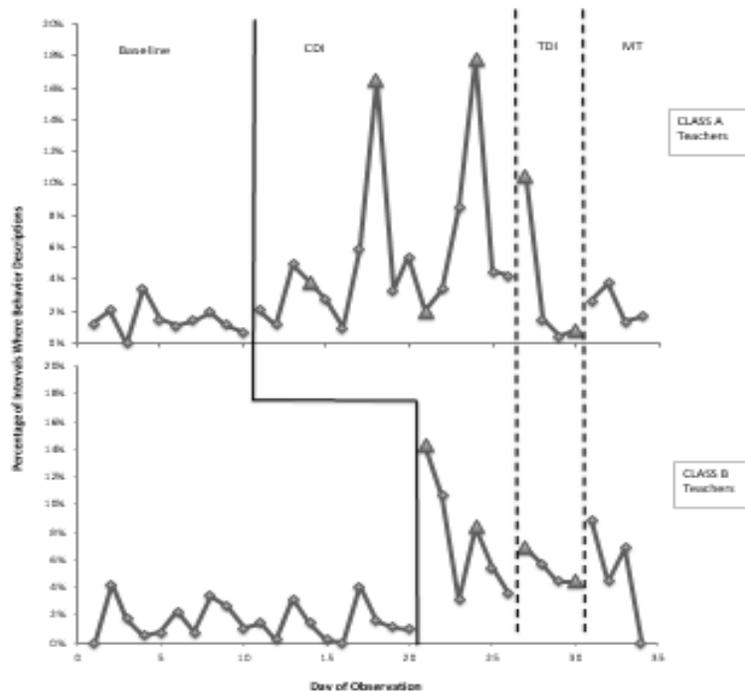
Figure 12. Daily Rates of Behavior Descriptions

Teachers' use of positive touch. In the baseline condition for both classrooms, teachers

used Positive Touch during an average of 1 to 1.5% of intervals, for Class B and A

respectively. During CDI, the use of Positive Touch increased to approximately 4% for

Class A and 3% to Class B. During TDI, these levels were maintained for approximately

3% to Class A and 4% for Class B. During the Maintenance phase, Class A's use of

Positive Touch increased to 5%, where Class B's use of Positive Touch decreased to 2%

(Figure 13).

More detailed information can be obtained by analyzing the daily rates of Positive

Touch (Figure 14). For Class A, among the highest rates of Positive Touch occurs on

coaching days in CDI, denoted by a triangle point. There is an overall increase in level

between Baseline rates of Positive Touch and CDI levels of Positive Touch. For Class B,

there is also an overall increase in level between Baseline rates of Positive Touch and

CDI levels of Positive Touch. However, coaching days do not have a higher rate of Positive Touch for Class B.
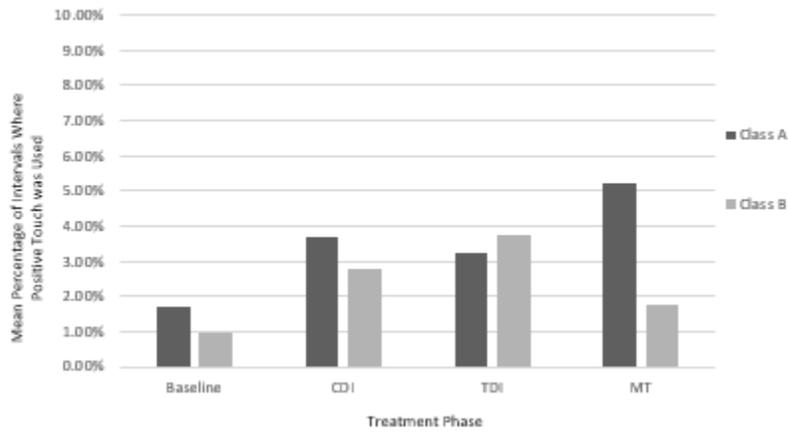
Figure 13. Mean Rates of Positive Touch per Condition
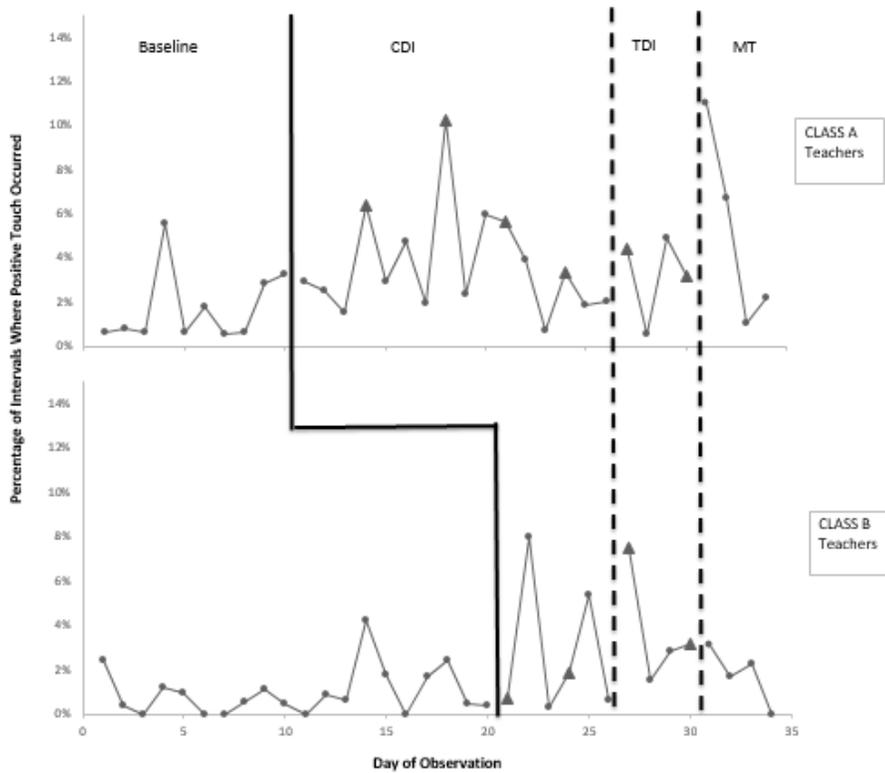
Figure 14. Daily Rates of Positive Touch

"Avoid" skills. Both classrooms demonstrated decreases in their performance of behaviors that TCIT encourages teachers to avoid: Negative Talk, Commands, and Questions. Each section below outlines detailed information about each of these behaviors.

Teachers' use of negative talk. Teachers in Class A and B already demonstrated low levels of Negative Talk during the baseline of the study (Figure 15), with average of 1.5% of intervals in Class A and 2.75% in Class B. During CDI, these levels, on average, only decreased slightly to less than 1.5% for Class A and slightly less than 2% for Class B. However, there is a significant decrease in average rate of Negative Talk in TDI, with both classrooms averaging less than 0.5% of intervals. For the Maintenance phase, Class A levels of Negative Talk increased to 1% where Class B levels increased to approximately 1.5%. However, these overall levels are lower than Baseline.

More detailed information can be obtained by analyzing the daily rates of Negative Talk (Figure 16). For Class A, there is less variability in CDI than in Baseline, less variability in TDI than in CDI. There are only two instances overall of Negative Talk rates being 3% or higher during any intervention phase. TDI levels remained lower than 1% and Maintenance levels were also lower than 1%, except for one point. For Class B, there is high variability in the use of Negative Talk for the Baseline condition. There was a significant decrease in variability in the CDI phase and TDI phase. Additionally, there is an overall decrease in level between Baseline rates of Negative Talk and CDI and TDI levels of Negative Talk. Rates of Negative Talk were also lower than Baseline levels.
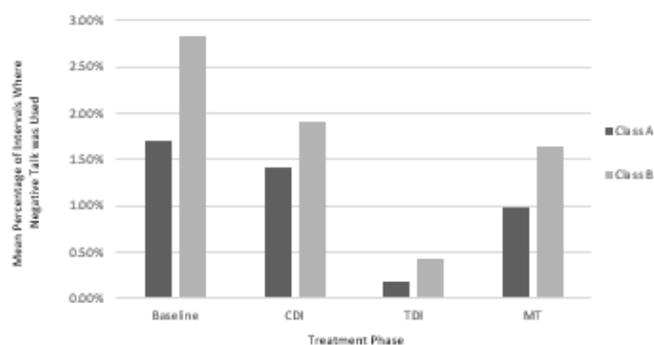
Figure 15. Mean Rates of Negative Talk per Condition
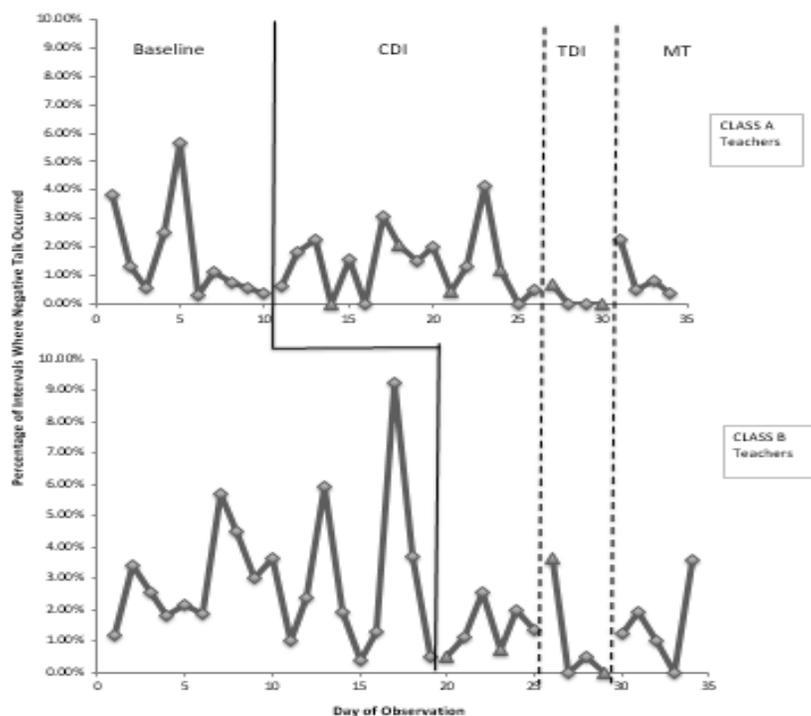
Figure 16. Daily Rates of Negative Talk

Teachers' use of commands. At Baseline, both classrooms averaged

approximately 22-23% of intervals with Commands. During CDI, these levels, on

average, only decreased slightly to approximately 18% for Class A and 16% for Class B.

However, there is a significant decrease in average rate of Commands in TDI, with both classrooms averaging approximately 13%. For the Maintenance phase, both classrooms increased their levels of Commands to approximately 18%. However, these overall levels are lower than Baseline (Figure 17).

More detailed information can be obtained by analyzing the daily rates of Commands (Figure 18). For Class A, there is greater variability in CDI than in Baseline and less variability in TDI than in CDI. However, there are more daily rates that are below 10% than in Baseline. For Class B, there is high variability in the use of Commands for the Baseline and CDI condition. However, there was a significant decrease in variability in the TDI phase, with all daily rates occurring between 5% and 10%. These levels increased slightly in the Maintenance phase, but were still below overall levels in Baseline and CDI.
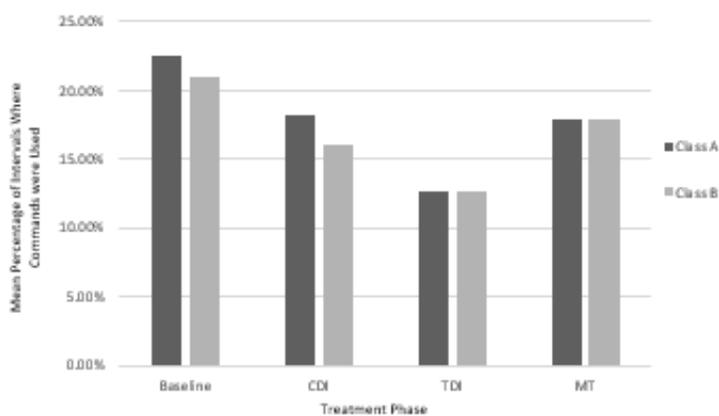
Figure 17. Mean Rates of Total Commands per Condition
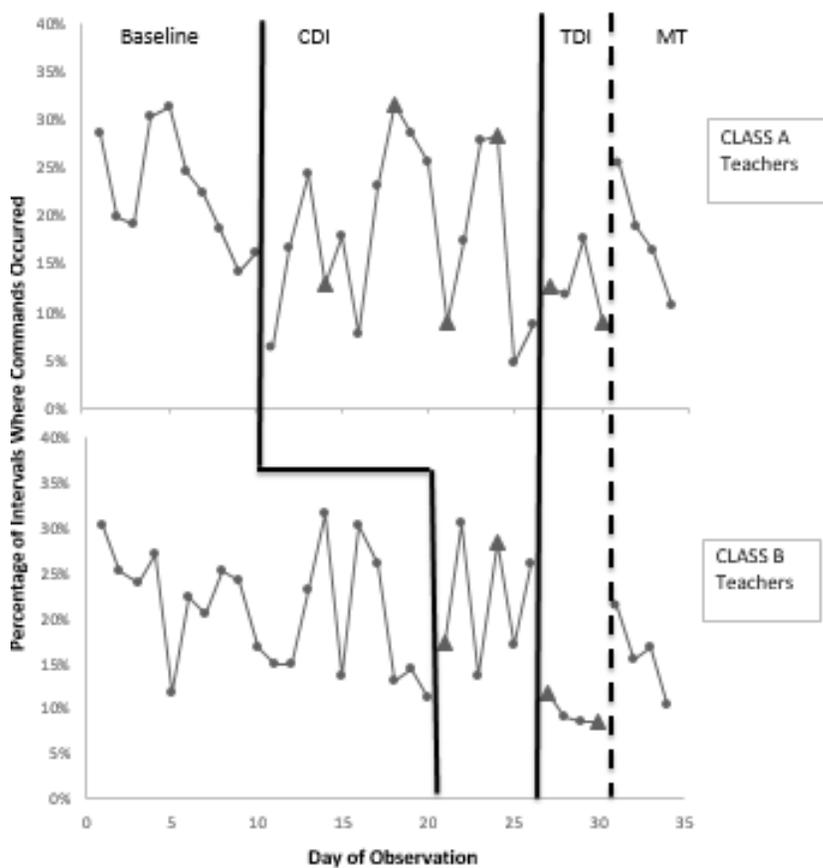
Figure 18. Daily Rates of Commands

  Direct commands. At Baseline, both classrooms averaged approximately 11% of intervals with Direct Commands. During CDI, these levels, on average, only decreased slightly to approximately 9% for Class A and remained at 11% for Class B. However, there is a significant decrease in average rate of Direct Commands in TDI, with Class A averaging approximately 9% and Class B averaging approximately 7%. For the Maintenance phase, both classrooms increased their levels of Commands to approximately 11-12% for both classrooms (Figures 19 and 20).
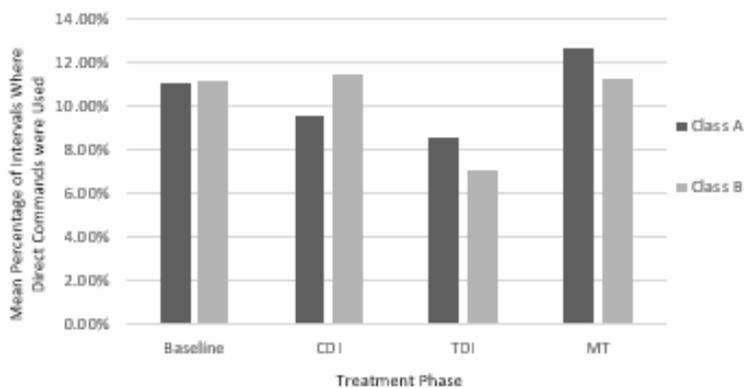
Figure 19. Mean Rates of Direct Commands per Condition
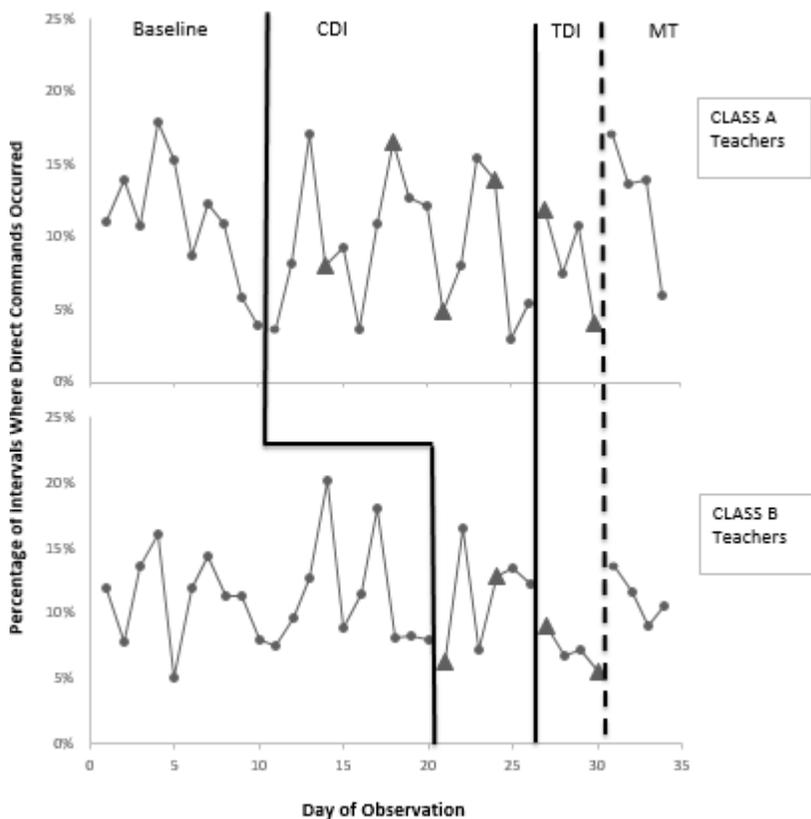
Figure 20. Daily Rates of Direct Commands

Indirect commands. At Baseline, Class A averaged approximately 12% of

intervals with Indirect Commands, while Class B averaged 10%. During CDI, these

levels, on average, only decreased slightly to approximately 9% for Class A and

remained at 11% for Class B. However, there is a significant decrease in average rate of Indirect Commands in TDI, with Class A averaging approximately 4% and Class B averaging approximately 2%. For the Maintenance phase, both classrooms maintained low levels of Indirect Commands, around 5% each. Most notably, levels of Direct Commands are higher in both TDI and Maintenance phases than Indirect Commands (Figures 21 and 22).
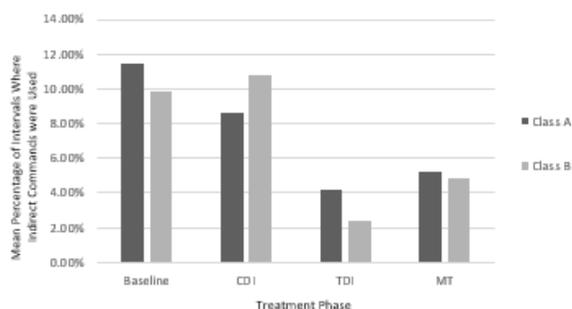
Figure 21. Mean Rates of Indirect Commands per Condition
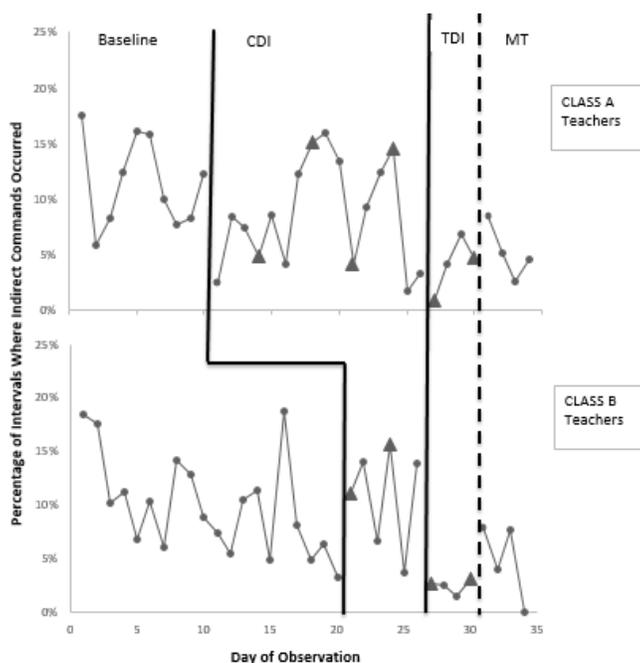
Figure 22. Daily Rates of Indirect Commands

Teachers' use of questions. At Baseline, Class A averaged approximately 18% of intervals with Questions, while Class B averaged slightly more with 22%. During CDI, these levels, on average, only decreased slightly to approximately 17% for Class A and 18% for Class B. These levels remained relatively unchanged in the TDI phase, with Class A averaging 17% of intervals with Questions and Class B averaging 14% of intervals with Questions. For the Maintenance phase, Class A reduced the overall level of Questions to approximately 14%, while Class B increased the use of Questions back to Baseline levels, or 22%.
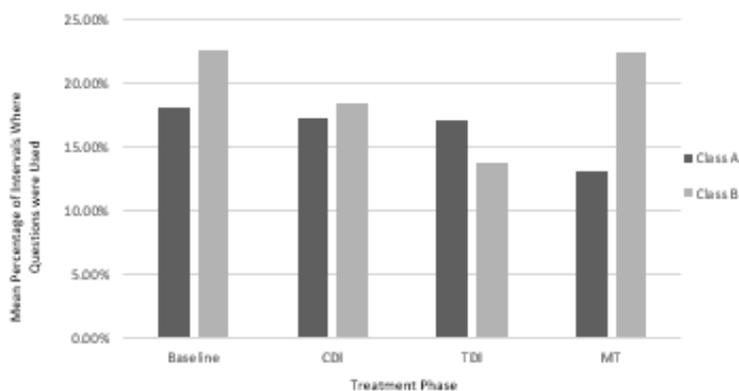
Figure 23. Mean Rates of Questions per Condition
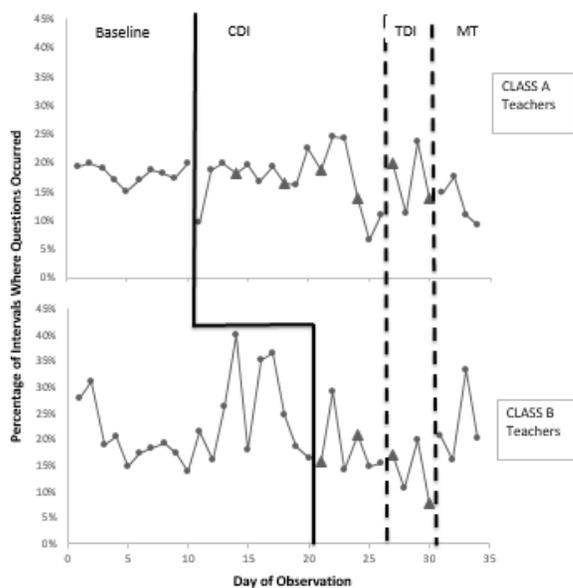
Figure 24. Daily Rates of Questions

Child behavior. This section includes figures that focus on the whole classroom undesirable child behaviors during circle time. Since Aggressive Behavior (AB), Destructive Behavior (DB), Yelling (Y) and Crying (C) were not observed during circle time, only Talking Out of Order (TO) and Being Out of Area (BA) will be analyzed.

Talking out of order. In the baseline condition for both classrooms, children were observed talking out of order on average of 30% of intervals for Class A and 34% of intervals for Class B during circle time. For both classrooms, there was not a significant difference in talking out of order during CDI (28% for Class A and 34% for Class B). However, there was an overall decrease in Talking Out of Order in CDI for Class A (21%) but not for Class B (38%). During Maintenance, there was another significant decrease in Talking Out of Order for Class A; however, Class B only had a slight decrease in Talking Out of Order (30%) (Figures 25 and 26).
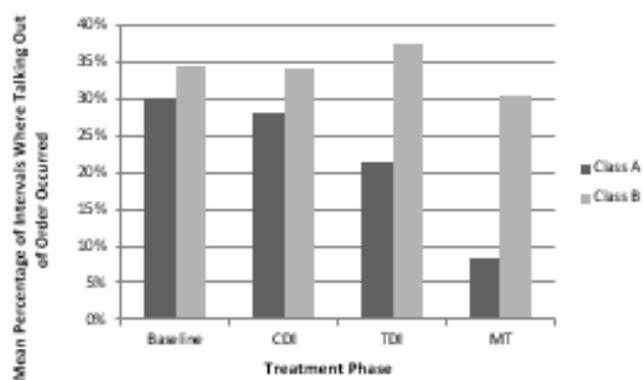
Figure 25. Mean Rates of Talking Out of Order per Condition
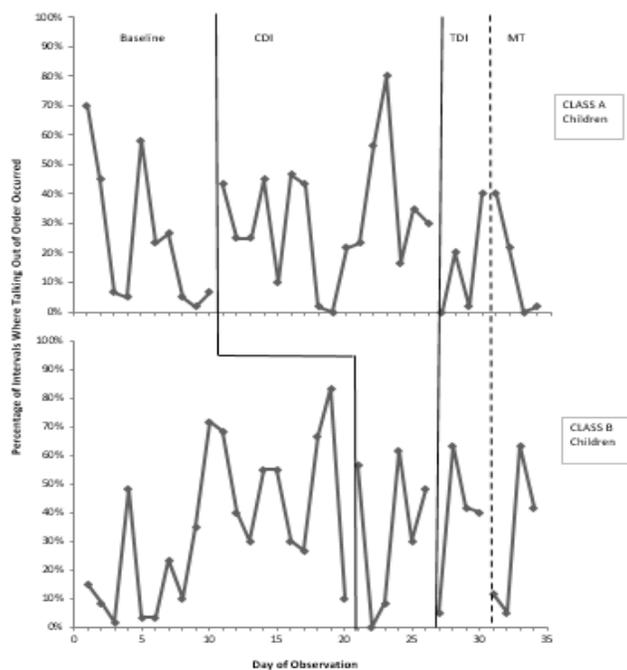
Figure 26. Daily Rates of Talking Out of Order

Being out of area. In the baseline condition for both classrooms, children were observed being out of their designated area on the carpet on average of 35% of intervals for Class A and 28% of intervals for Class B during circle time. For both classrooms, there was a significant drop in Being out of Area during the CDI phase (9% for Class A and 10% for Class B).This decrease level was maintained during TDI for Class A (10%).

However, there was an increase back to baseline levels for Being out of Area for Class B (30%). During Maintenance, Class A maintained a low level of Being out of Area (8%), while Class B decreased slightly from TDI levels to 23% (Figures 27 and 28).
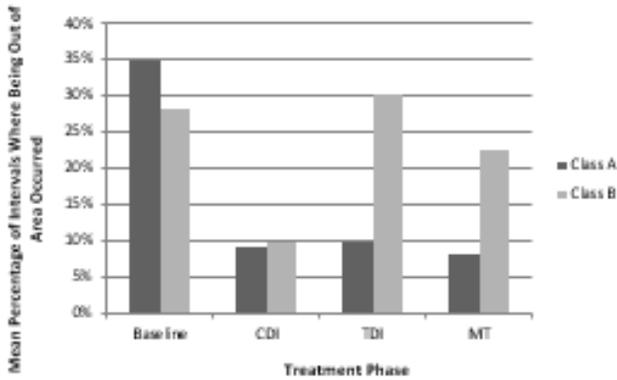
Figure 27. Mean Rates of Being Out of Area per Condition
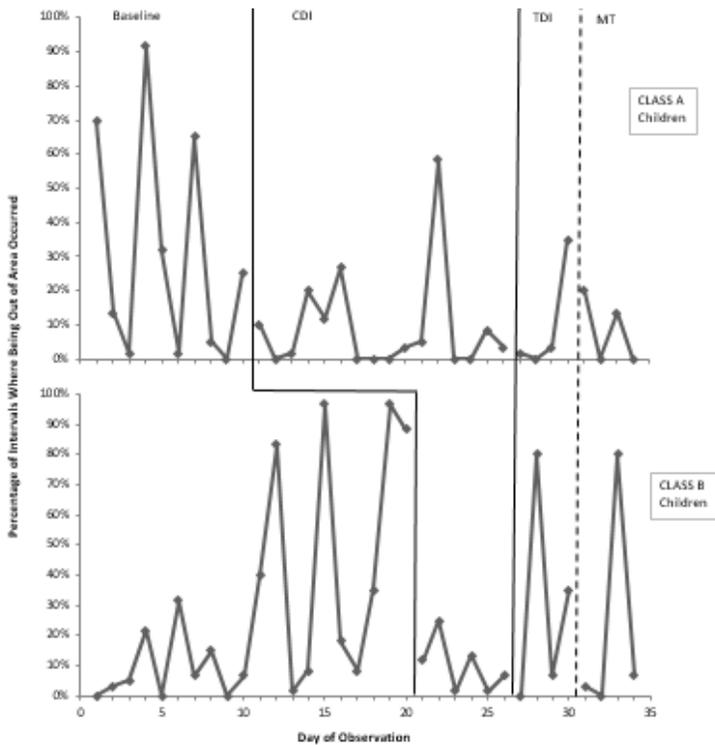
Figure 28. Daily Rates of Being Out of Area

DECA-P2 Data

      Consistency of Ratings. As noted previously, teachers in both Class A and Class

B completed the DECA-P2 for each child in their classroom, pre-intervention and post-

intervention. Raw scores were converted to T-scores for each scale and subscale.

Through SPSS 21, data were analyzed from these teacher ratings. First, a paired t-test

was conducted between teacher's ratings within the classroom in order to assess

consistency of ratings. Here, it would be ideal to have a non-significant result. In other

words, we do not want teacher's ratings of each child to be significantly different than

another teacher's ratings of the same child. Comparisons between each teacher within a

classroom were analyzed. The table below shows the results of these analyses.

Class A: Consistency of ratings.

Table 9

P Values of Teacher Paired T-Test Analyses (Pre-Intervention Ratings)

Teacher Pair: Class A Pre-Intervention Ratings	Initiative Scale	Self-Regulation Scale	Attachment Scale	Total Protective Factors Scale	Behavioral Concerns Scale
Head Teacher -- Assistant I	.187	246	.106	.347	.005*
Head Teacher – Assistant II	.011*	.023*	.073	.357	.029*
Assistant I – Assistant II	.205	.791	.147	.345	.001*

Note. *Significant at the $p < .05$ level

      As seen above in Table 9, pre-intervention DECA-P2 scores from the Behavior

Concerns scale were significantly different across all teacher pairs. This indicates that

when these teachers rated the same student on Behavior Concerns, their ratings of that

child were significantly different from one another. Because of this, no analyses of

Behavior Concerns were calculated as they would not be meaningful. Additionally, the

Head Teacher and Instructional Assistant II had significantly different ratings of the same

children on the Initiative Scale and Self-Regulation scale. However, Instructional

Assistant I and Instructional Assistant II had similar ratings of the same children across

the remaining four scales (Initiative, Self-Regulation, Attachment and Total Protective

Factors), indicating consistency of ratings for pre-intervention ratings of the same

children.

Table 10

P Values of Teacher Paired T-Test Analyses (Post-Intervention Ratings)

Teacher Pair: Class A Post-Intervention Ratings	Initiative Scale	Self-Regulation Scale	Attachment Scale	Total Protective Factors Scale
Head Teacher -- Assistant I	.251	.062	.664	.833
Head Teacher – Assistant II	.010*	.038*	.054	.246
Assistant I – Assistant II	.134	.897	.093	.237

Note. *Significant at the p < .05 level

As seen above in Table 10, the Head Teacher and Instructional Assistant II again

had significantly different ratings of the same children on the Initiative scale, Self-

Regulation scale, and Attachment scale. However, the Head Teacher and Instructional

Assistant I again consistently rated the same children with similar scores on the Initiative

scale, Self-Regulation scale, Attachment scale, and Total Protective Factors scale.

Because of these analyses, it was decided to only use the Head Teacher and Instructional

Assistant I's DECA-P2 ratings since they maintained consistency of ratings when rating

the same children, both pre-intervention and post-intervention.

Classroom B: Consistency of ratings.

Table 11

P Values of Teacher Paired T-Test Analyses (Pre-Intervention Ratings)

Teacher Pair: Class B Pre-Intervention Ratings	Initiative Scale	Self-Regulation Scale	Attachment Scale	Total Protective Factors Scale	Behavioral Concerns Scale
Head Teacher -- Assistant I	.066	.669	.001*	.010*	.823

Note. *Significant at the p < .05 level

As seen above in Table 11, the Head Teacher in Class B had significantly

different ratings pre-intervention for the same children when compared to the

Instructional Assistant on the Attachment scale and Total Protective Factors scale.

Therefore, no further analyses were conducted on those two scales, as the data would not

be meaningful. However, their ratings of the same children for the Initiative, Self-

Regulation, and Behavior Concerns scale were not significantly different pre-

intervention.

Table 12

P Values of Teacher Paired T-Test Analyses (Post- Intervention Ratings)

Teacher Pair: Class B Post-Intervention Ratings	Initiative Scale	Self- Regulation Scale	Behavioral Concerns Scale
Head Teacher -- Assistant I	.000*	.003*	.025*

Note. *Significant at the p < .05 level

As seen above in Table 12, the Head Teacher in Class B had significantly different ratings post-intervention for the same children when compared to the Instructional Assistant on all of the remaining scales (Initiative, Self-Regulation, and Behavior Concerns). Because of this, no further analyses were conducted on Class B DECA-P2 data, as it would not be meaningful to run analyses on inconsistent ratings.

Analyses of pre and post intervention ratings (Class A only).

Head teacher ratings. On average, students had significantly higher scores on the Initiative scale post-intervention (*M*= 51.12, *SE*= 1.59) than pre-intervention (*M*=46.76, *SE*= 1.53), *t*(16) = 3.581, *p* = .002 for ratings by the Head Teacher. On average, students had significantly higher scores on the Self-Regulation scale post-intervention (*M*= 54.53, *SE*= 1.641) than pre-intervention (*M*= 50.76, *SE*= 1.379), *t*(16) = -2.460, *p* = .026 for ratings by the Head Teacher. On average, students did not have significantly higher scores on the Attachment scale post-intervention (*M*= 48.29, *SE*= 1.545) than pre-intervention (*M*= 46.06, *SE*= 1.217), *t*(16) = -1.276, *p* = .220 for ratings by the Head Teacher. However, on average, students had significantly higher scores on the Total Protective Factors scale post-intervention (*M*= 51.71, *SE*= 1.460) than pre-intervention (*M*= 47.65, *SE*= 1.380), *t*(16) = -2.777, *p* = .013 for ratings by the Head Teacher.

Table 13

Results of Paired Sample T-Test Analysis (Pre and Post Intervention Ratings) for Head Teacher in Class A

DECA-P2 Scale	Mean Δ (Pre – Post)	SD	t	df	P Value
Initiative	-4.353	5.012	-3.581	16	.002*
Self-Regulation	-3.765	6.310	-2.460	16	.026*
Attachment	-2.235	7.224	-1.276	16	.220
Total Protective Factors	-4.059	6.026	-2.777	16	.013*

Note. *Significant at the p < .05 level

Instructional Assistant I Ratings. As noted in Table 14, on average, students did not have significantly higher scores on the Initiative scale post-intervention (*M*= 52.88, *SE*= 1.497) than pre-intervention (*M*= 50.00, *SE*= 2.595), *t*(16) = -1.379, *p* = .187 for ratings by the Instructional Assistant I. On average, students did not have significantly higher scores on the Self-Regulation scale post-intervention (*M*= 51.18, *SE*= 1.639) than pre-intervention (*M*= 48.94, *SE*=1.746), *t*(16) = -1.156, *p* = .265 for ratings by the Instructional Assistant I. On average, students did not have significantly higher scores on the Attachment scale post-intervention (*M*= 49.00, *SE*= .985) than pre-intervention (*M*= 48.47, *SE*= 1.551), *t*(16) = -.304, *p* = .765 for ratings by the Instructional Assistant I. On average, students did not have significantly higher scores on the Total Protective Factors scale post-intervention (*M*= 51.35, *SE*= 1.366) than pre-intervention (*M*= 49.24, *SE*= 1.990), *t*(16) = -1.194, *p* = .250 for ratings by the Instructional Assistant I.

Table 14

Results of Paired Sample T-Test Analysis (Pre and Post Intervention Ratings) for

Instructional Assistant I in Class A

DECA-P2 Scale	Mean Δ (Pre – Post)	SD	t	df	P Value
Initiative	-2.882	8.616	-1.379	16	.187
Self-Regulation	-2.235	7.973	-1.156	16	.265
Attachment	-.529	7.169	-.304	16	.765
Total Protective Factors	-2.118	7.313	-1.194	16	.250

Coaching Data

The coach was measured on eleven pre-determined coaching behaviors: Labeled

Praise for Teachers' Use of Labeled Praise/Reflections/Behavior Descriptions/Positive

Touch (LP1), Labeled Praise for Other Positives/Unlabeled Praise/Enjoyment/Imitation

(LP2), Labeled Praise for Appropriate Use of Direct Commands/Questions/Neutral

Talk/Planned Ignoring (LP3), Unlabeled Praise (UP), Descriptive Label (DL), Indirect

Commands (IC), Direct Commands (DC), Closing the Loop (CL), Higher Order (HO),

Critical Statements (CS), and Incorrect Statements (IS).

The following section outlines the breakdown of coaching data in multiple ways.

First, there is a bar graph displaying the average percent of intervals that the coach used

each of the above eleven behaviors. Next, two graphs are shown to show the differences

in coaching dimensions between Class A and Class B across training phases. Third, two

graphs are shown to highlight the differences in coaching dimensions between newly

trained teachers and previously trained teachers across training phases. Fourth, two

graphs are shown to demonstrate the differences in coaching dimensions between head teachers and instructional assistants across training phases.

Total coaching across all classrooms and teachers.
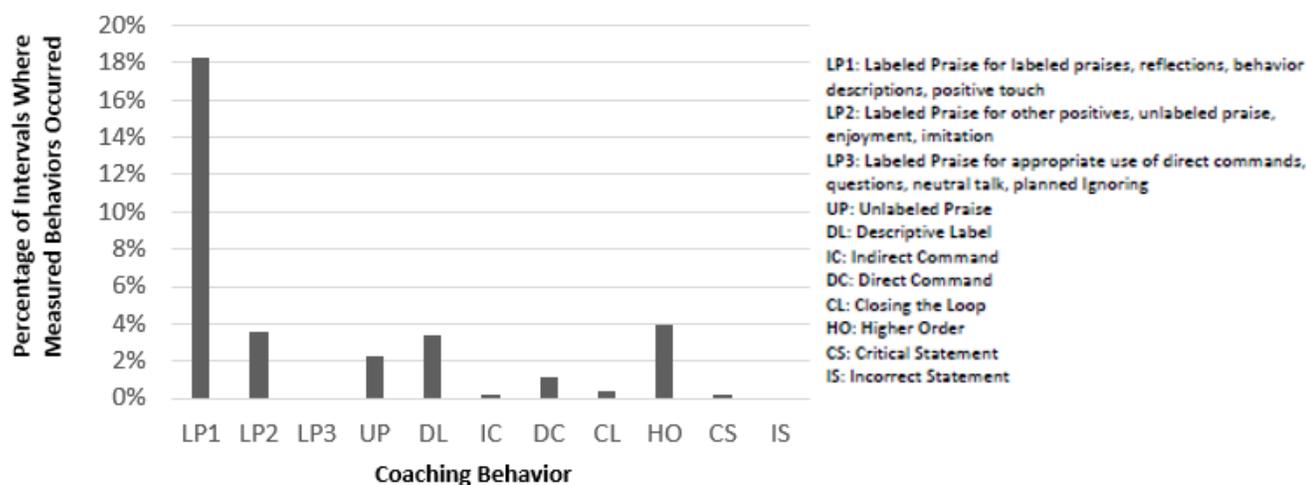
Figure 29. Average Percent of Intervals that the Coach used the 11 Coaching Behaviors

As seen above in Figure 29, the coach used LP1 the most frequently, for an average of 18% of intervals each coaching session. The second most frequently used coaching behavior was Higher Order (HO) statements and LP2 at approximately 4%. Next, the coach used Descriptive Labels (DL) on average of 3% of intervals and UP for an average of 2% of intervals. Commands were used infrequently, with Direct Commands (DC) used 1% of the time and Indirect Commands (IC) used less than .2% of the time. The remaining coaching behaviors occurred, on average, in less than .5% of intervals, including Closing the Loop (CL) and Critical Statements (CS). There were no observed intervals with LP3 or IS.

Classroom A vs. Classroom B coaching.
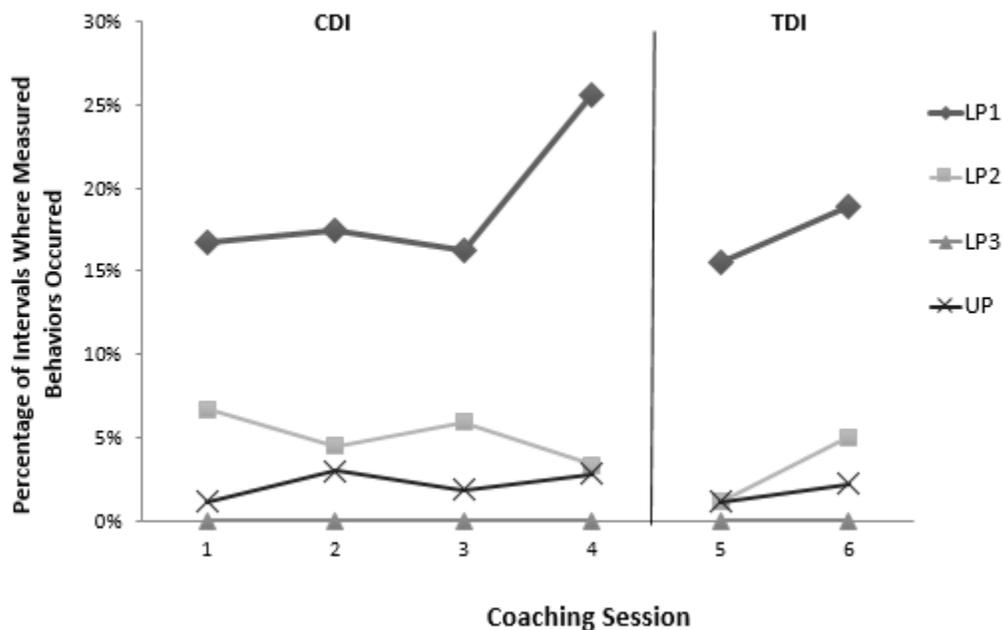
Figure 30. Class A Coaching Across Phases (LP1, LP2, UP)

Figure 30 above shows the coach's use of praise across the six coaching sessions. During CDI for Class A, the coach used Labeled Praise for Teachers' Use of Labeled Praise/Reflections/Behavior Descriptions/Positive Touch (LP1) for an average of 19% of intervals. There was a slight overall decrease in use of LP1 from CDI to TDI (17%). Use of Labeled Praise for Other Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) remained constant across CDI and TDI. There were no observed intervals where Labeled Praise for Appropriate Use of Direct Commands/Questions/Neutral Talk/Planned Ignoring (LP3) occurred. Unlabeled Praise remained constant across CDI and TDI.

Figure 31. Class A Coaching Across Phases (DL, DC, CL, HO, CS)

The remaining measured coaching behaviors occurred at a relatively low frequency, all below 10%. The coach used Descriptive Labels at a higher rate during the first two sessions of CDI (approximately 7% and 6%, respectively). However, this use of Descriptive Labels dropped to approximately 1-2% for the remaining two CDI coaching sessions. There was also variation in the TDI phase in the coach's use of Descriptive Labels, 6% in the first TDI coaching session to 2% in the second TDI coaching session. Higher order statements were used in approximately 2-4% of intervals during CDI and increased slightly to between 4-6% in TDI (Figure 31).
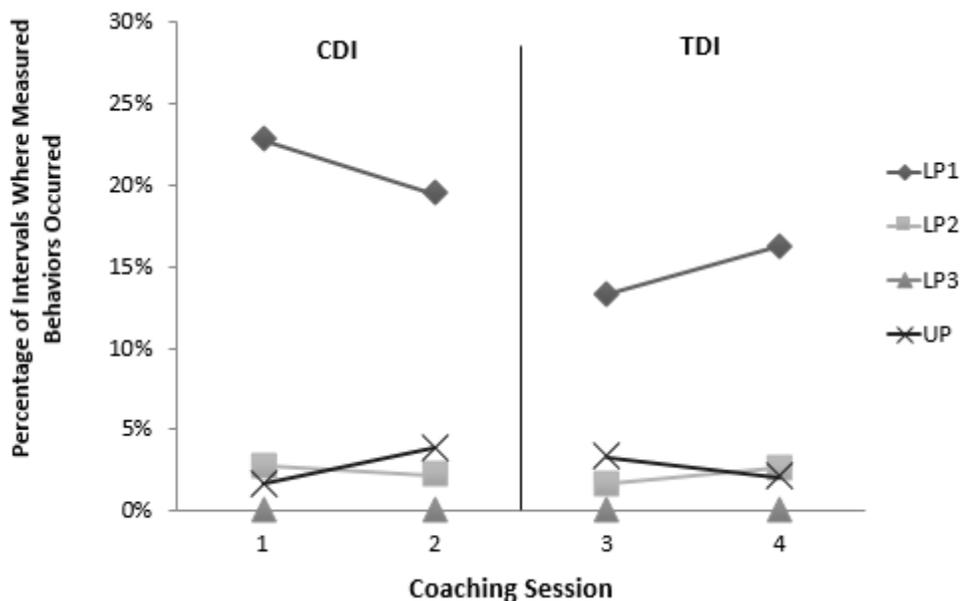
Figure 32. Class B Coaching Across Phases (LP1, LP2, LP3, UP)

During CDI for Class B, the coach used Labeled Praise for Teachers' Use of

Labeled Praise/Reflections/Behavior Descriptions/Positive Touch (LP1) for 23% for the

first coaching session and 19% for the second coaching session. There was a slight

overall decrease in use of LP1 from CDI to TDI to 13% for the first TDI coaching session

and 16% for the second TDI coaching session. Use of Labeled Praise for Other

Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) remained constant across CDI and

TDI (remaining between approximately 2-3%). There were no observed intervals where

the coach used Labeled Praise for Appropriate Use of Direct Commands/Questions/

Neutral Talk/Planned Ignoring (LP3) Unlabeled Praise (UP) remained constant across

CDI and TDI with rates between 2-4% for each coaching session. Figure 32 above shows

these observed coaching behaviors per coaching session.
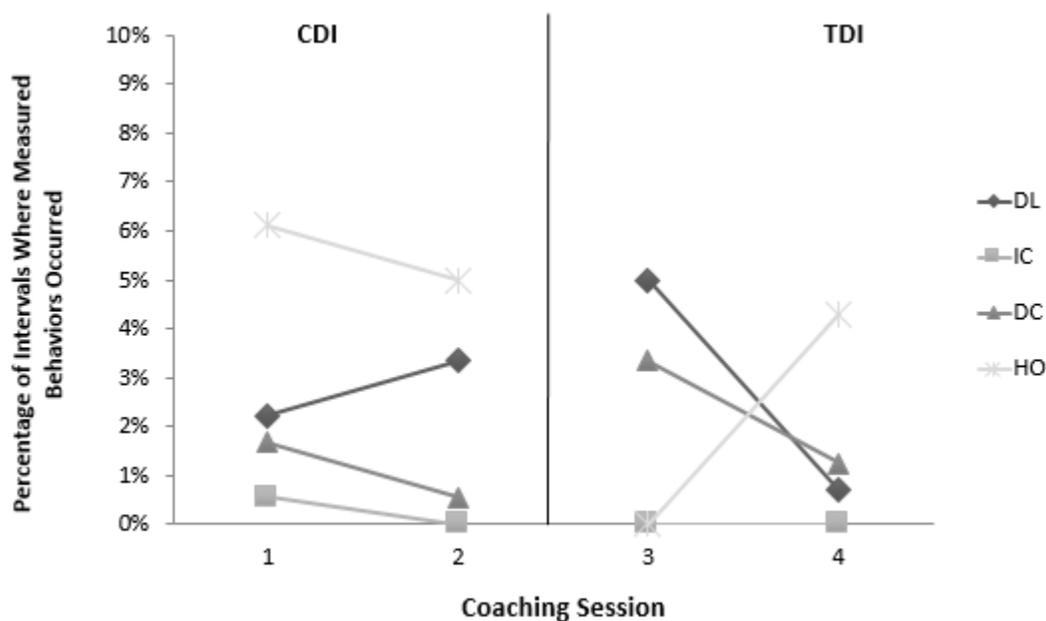
Figure 33. Class B Coaching Across Phases (DL, IC, DC, HO)

The remaining measured coaching behaviors occurred at a relatively low frequency, all below 10%. The coach used Descriptive Labels at a variable rate, with no distinction between CDI and TDI phases. Higher Order statements were used in approximately 4-6% of intervals across CDI and TDI, with the exception of one coaching session without any recorded Higher Order statements. There were no recorded intervals where Critical Statements, Incorrect Statements, and Closing the Loop occurred. There was limited use of Indirect Commands by the coach which only occurred in one coaching session for 0.56% of intervals. Figure 33 above shows these observed coaching behaviors per coaching session.

Newly trained teachers vs. previously trained teachers.
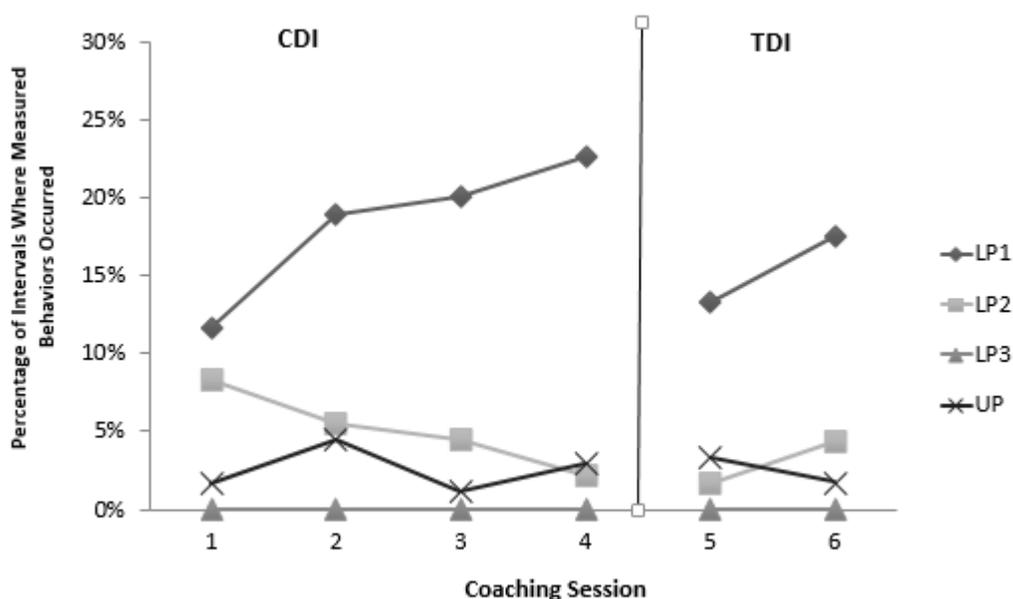
Figure 34. Newly Trained Teacher Coaching Across Phases (LP1, LP2, LP3, UP)

During CDI for newly trained teachers, the coach used Labeled Praise for

Teachers' Use of Labeled Praise/Reflections/Behavior Descriptions/Positive Touch (LP1)

for an average of 18% of intervals. There is a slight upward trend with the fourth

coaching session consisting of 10% more LP1 than the first coaching session. There is a

slight overall decrease in use of LP1 from CDI to TDI to an average of 15%. Use of

Labeled Praise for Other Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) showed a

slight downward trend in CDI, ranging from 8% to 2%; however, LP2 remained constant

during the TDI phase. There were no observed intervals where the coach used Labeled

Praise for Appropriate Use of Direct Commands/Questions/ Neutral Talk/Planned

Ignoring (LP3). Unlabeled Praise (UP) was variable across CDI and TDI with rates

between 1-4% for each coaching session. Figure 34 above shows these observed

coaching behaviors per coaching session.
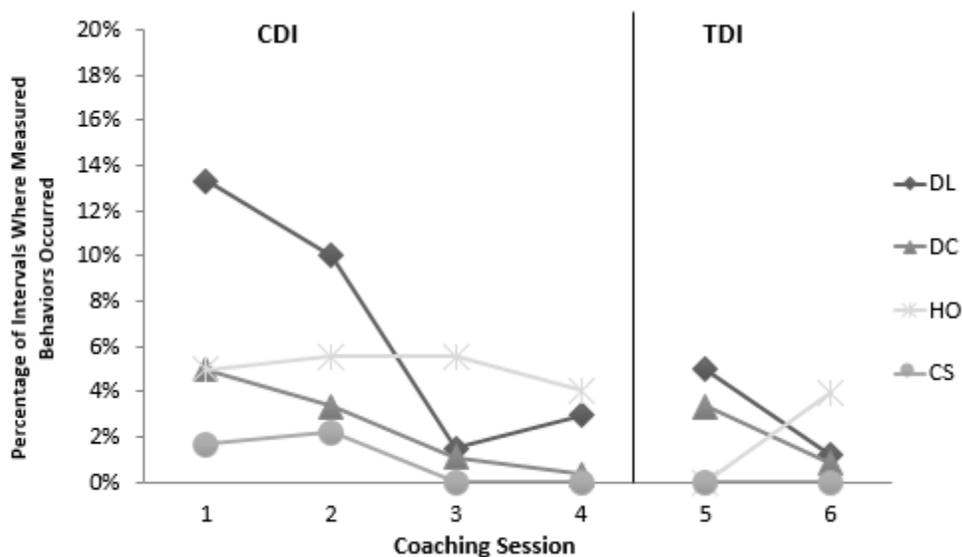
Figure 35. Newly Trained Teacher Coaching Across Phases (DL, DC, HO, CS)

The coach used Descriptive Labels more frequently during the first two CDI

coaching sessions (13% and 10% respectively). After those two sessions, there is a

significant downward trend with the remaining sessions between 1-3%. During the first

TDI coaching session, there was a slight increase in use of DL to 5%, then a decrease to

1%. Direct Commands (DC) were used more frequently at the beginning of the CDI

phase (5%) and slightly more during the first TDI coaching session (3%). Higher Order

statements were used in approximately 4-6% of intervals across CDI and TDI, with the

exception of one coaching session without any recorded Higher Order statements. Critical

Statements were more common during the first two sessions of CDI and then dropped to

0% for the remaining coaching sessions. There were no recorded intervals where

Incorrect Statements and Closing the Loop occurred. There was limited use of Indirect

Commands by the coach which only occurred in one coaching session for 0.37% of

intervals. Figure 35 above shows these observed coaching behaviors per coaching

session.
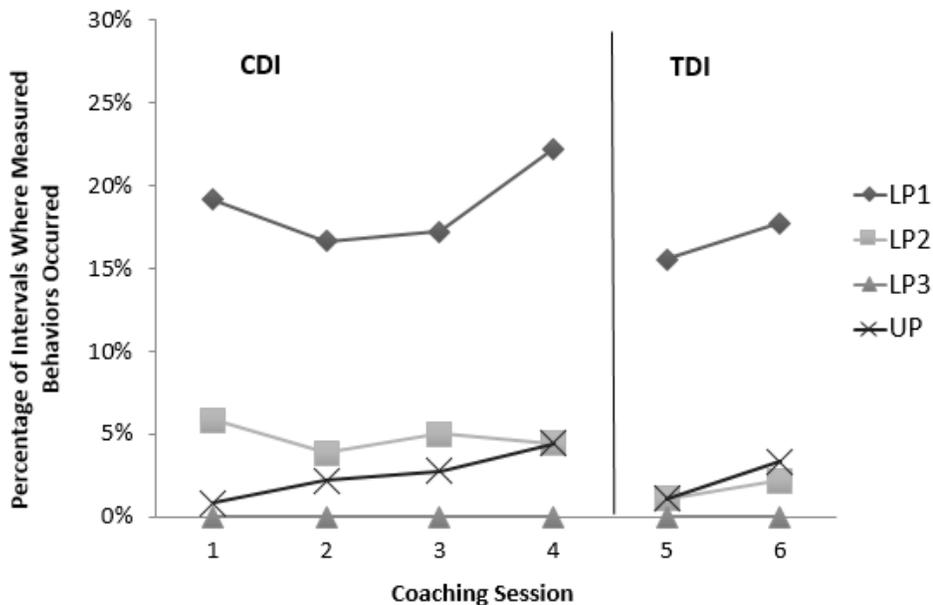
Figure 36. Previously Trained Teacher Coaching Across Phases (LP1, LP2, LP3, UP)

During CDI for previously trained teachers, the coach used Labeled Praise for

Teachers' Use of Labeled Praise/Reflections/Behavior Descriptions/Positive Touch (LP1)

for an average of 19% of intervals. There is a slight downward trend during TDI, with the

coaching using LP1 in 17% of intervals. Use of Labeled Praise for Other

Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) showed a slight downward trend

ranging from 5% in CDI to 2% in TDI. There were no observed intervals where the coach

used Labeled Praise for Appropriate Use of Direct Commands/Questions/ Neutral

Talk/Planned Ignoring (LP3). Unlabeled Praise (UP) was variable across CDI and TDI

with rates between 1-4% for each coaching session. Figure 36 above shows these

observed coaching behaviors per coaching session
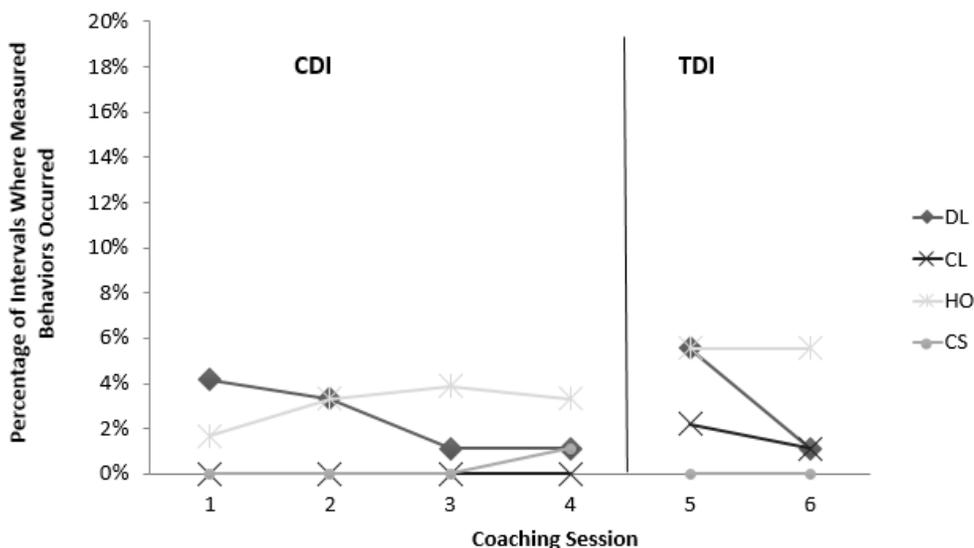
Figure 37. Previously Trained Teacher Coaching Across Phases (DL, CL, HO, CS)

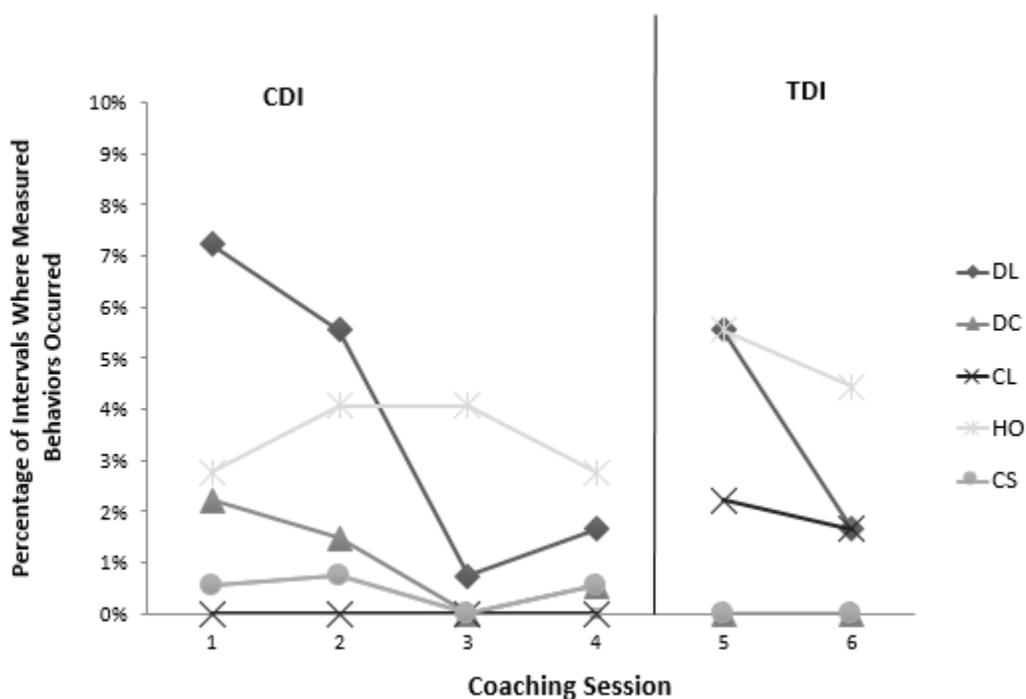The remaining coaching behaviors occurred at a relatively low rate, all below 6%. The coach used Descriptive Labels more frequently during the first two CDI coaching sessions (4% and 3% respectively). After those two sessions, there is a slight downward trend with the remaining sessions around 1%. During the first TDI coaching session, there was a slight increase in use of DL to 5%, then a decrease to 1%. Direct Commands (DC) were infrequently used (between 0-1% for all coaching sessions) and therefore were not graphed. Higher Order statements were used in an average of 3% of intervals during CDI and 6% of intervals during TDI. Critical Statements were uncommon, occurring during only one coaching session for 1% of the intervals recorded. There were no recorded intervals where Incorrect Statements occurred. Praising for Closing the Loop (CL) was only observed during the TDI phase for an average of 2%. There was limited use of Indirect Commands (between 0-1% for all coaching sessions) and therefore was

not graphed. Figure 37 above shows these observed coaching behaviors per coaching session.

Head teacher vs. instructional assistant coaching.
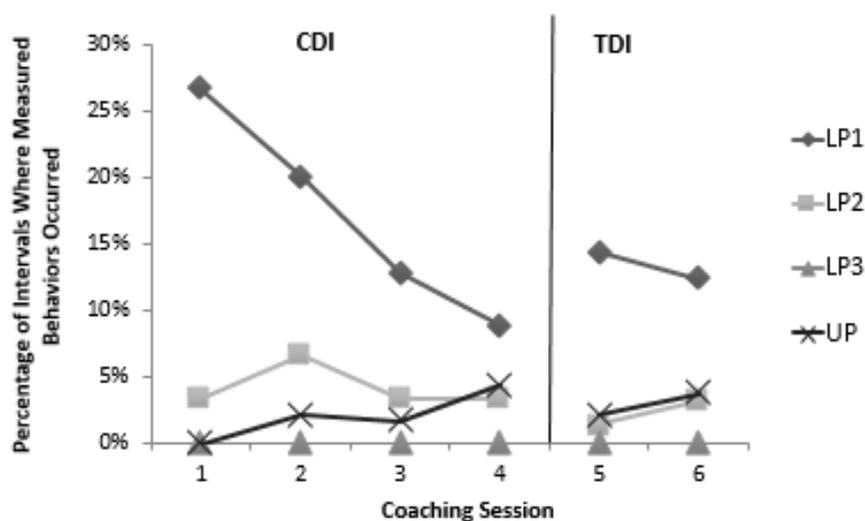
Figure 38. Head Teacher Coaching Across Phases (LP1, LP2, LP3, UP)

During CDI for head teachers, there is a significant downward trend in the coach's use of Labeled Praise for Teachers' Use of Labeled Praise/Reflections/ Behavior Descriptions/Positive Touch (LP1) for an average of 19% of intervals. There is more stability in the coach's use of LP1 during TDI, which was used on average of 13% of intervals. Use of Labeled Praise for Other Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) showed an overall stable rate during CDI (average of 4%) with a slight decrease in TDI (average of 2%). There were no observed intervals where the coach used Labeled Praise for Appropriate Use of Direct Commands/Questions/ Neutral Talk/Planned Ignoring (LP3). Unlabeled Praise (UP) was relatively stable across CDI and TDI, with averages between 2-3%. Figure 38 above shows these observed coaching behaviors per coaching session.
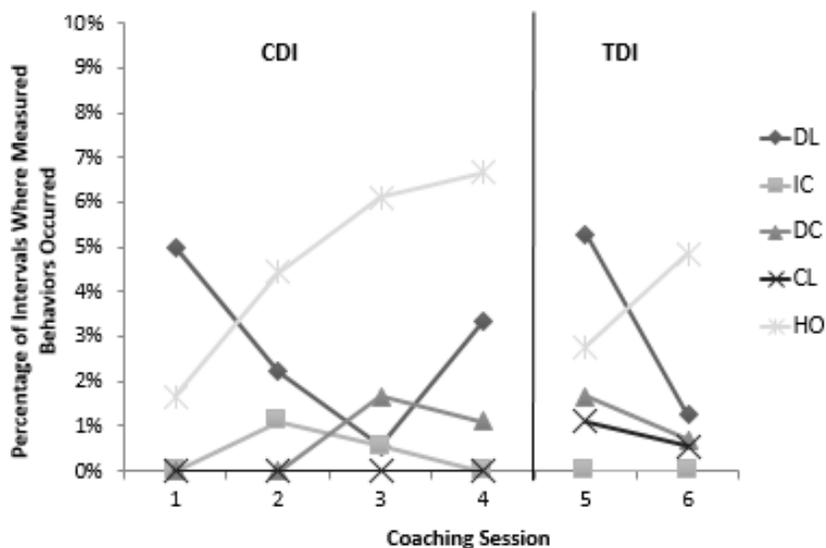
Figure 39. Head Teacher Coaching Across Phases (DL, IC, DC, CL, HO)

The remaining coaching behaviors occurred at a relatively low rate, all below 7%.

Higher Order (HO) statements showed an upward trend during CDI, with an average of

5%. Use of HO decreased to an average of 3% for TDI. The coach used Descriptive

Labels (DL) at a variable rate in both CDI and TDI (between 0-5% for each coaching

session). There was limited use of both Direct Commands (DC) and Indirect Commands

(IC) (between 0-2% for all coaching sessions). There were no recorded instances of

Critical Statements or Incorrect Statements, so these behaviors were not graphed.

Praising for Closing the Loop (CL) was only observed during the TDI phase for an

average of 1%. Figure 39 above shows these observed coaching behaviors per coaching

session.
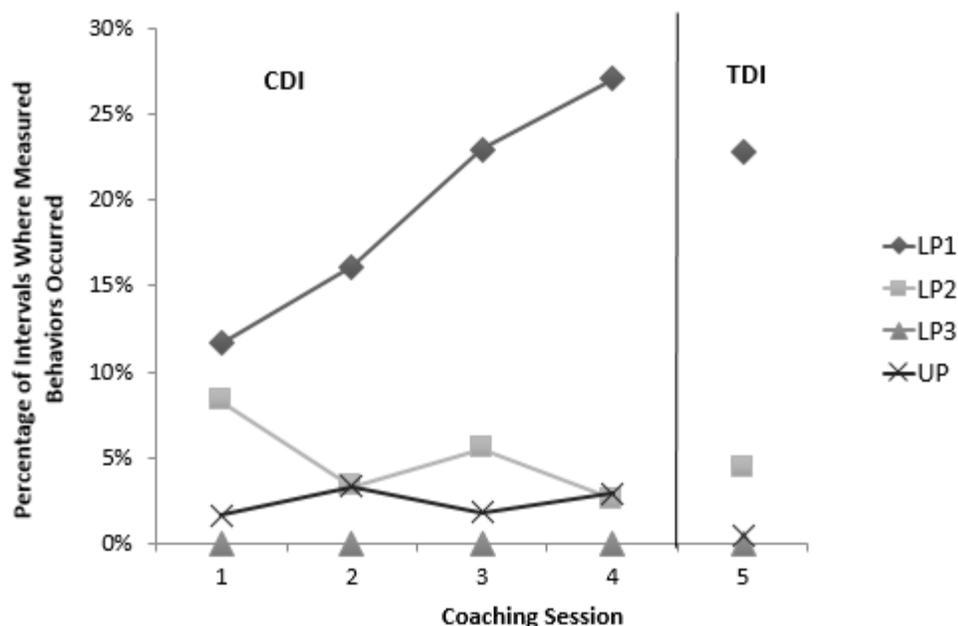
Figure 40. Instructional Assistant Coaching Across Phases (LP1, LP2, LP3, UP)

During CDI for instructional assistants, there is a significant upward trend in the coach's use of Labeled Praise for Teachers' Use of Labeled Praise/Reflections/ Behavior Descriptions/Positive Touch (LP1) for an average of 19% of intervals. Use of Labeled Praise for Other Positives/Unlabeled Praise/Enjoyment/Imitation (LP2) showed an overall stable rate during CDI (average of 5%). Both LP1 and LP2 maintain the same rate during the one TDI session as in the CDI phase. There were no observed intervals where the coach used Labeled Praise for Appropriate Use of Direct Commands/Questions/ Neutral Talk/Planned Ignoring (LP3). Unlabeled Praise (UP) was relatively during CDI, with an average use of 2%. This drops to close to 0% during TDI. Figure 40 above shows these observed coaching behaviors per coaching session.
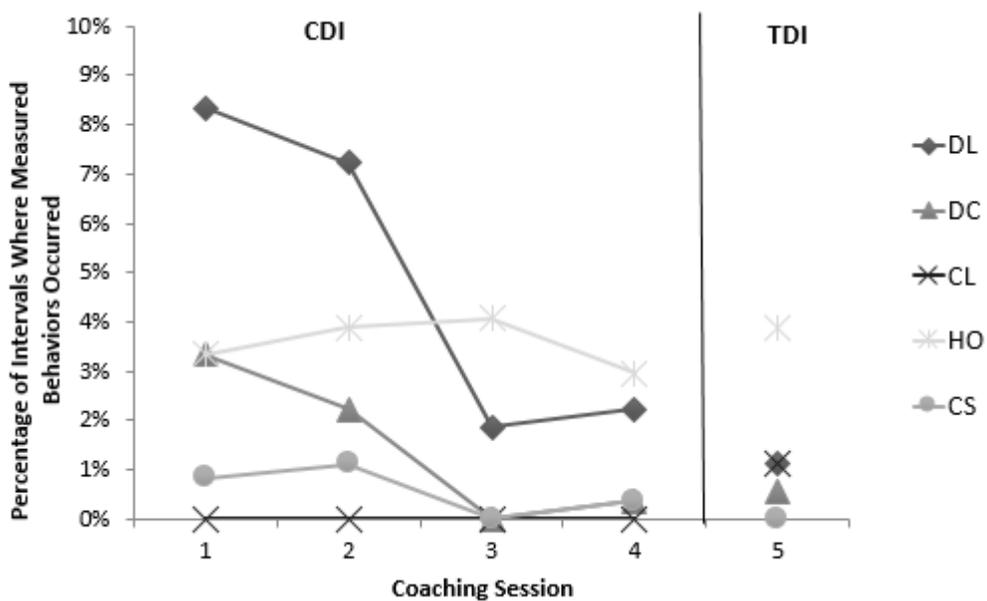
Figure 41. Instructional Assistant Coaching Across Phases (DL, DC, CL, HO, CS)

The remaining coaching behaviors occurred at a relatively low rate, all below 9%.

The coach used Descriptive Labels (DL) at a variable rate with greater use during the first

two coaching sessions of CDI for an average of 8% and an average of 2% during the last

two CDI coaching sessions. This level dropped slightly to 1% during the one TDI

coaching session. Higher Order (HO) statements showed a stable trend in CDI with an

average of 4%. This also remained stable during TDI. Direct Commands (DC) were used

at a higher rate during the first two sessions of CDI (average of 3%), and dropped to close

to 0% for the remaining CDI and TDI sessions. Praising for Closing the Loop (CL) was

only observed during the TDI phase for an average of 1%. There was limited use of

Critical Statements (CS) and Indirect Commands (IC) (between 0-1% for all coaching

sessions). Additionally, there were no recorded instances of Incorrect Statements, so

these behaviors were not graphed. Figure 41 above shows these observed coaching

behaviors per coaching session.

Discussion

Analysis of Hypotheses

There is a large body of research that suggests the benefits of positive teacher-student relationships. These improved relationships have been linked to improvements in attachment, emotion regulation, academic performance and engagement, as well as associated with decreased disruptive behaviors. Because of this, many programs have sought to improve teacher-student relationships. These programs have often found that individualized, in-vivo feedback, or coaching, has been particularly effective at helping teachers to translate the skills learning in a didactic format to the classroom.

Hypothesis 1. Increase in Teacher's Use of PRIDE skills and decrease "Avoid" skills

The first aspect of the current study sought to replicate previous TCIT research, showing the effects of this program on teacher and student behavior. This study used a multiple baseline design across two preschool classrooms. Both teacher behaviors and child behaviors were systematically observed in order to assess the students' change in behavior as a result of the TCIT teacher intervention. In accordance with previous TCIT research studies, teachers were asked to rate children's behaviors pre-intervention and post-intervention in order to determine if the observed classroom behaviors were correlated with the teacher's perceived behavior change.

The first hypothesis theorized that there would be overall changes in teacher behavior, specifically an increase in their use of PRIDE skills and a decrease in the "Avoid" skills as a result of the TCIT intervention. According to the results, there was an overall increase in the use of PRIDE skills in both Class A and Class B. Similar to other TCIT studies (Devers, 2014; Rossi, 2014), there was a slight decrease in TDI,

presumably because teachers are now focusing on the new skills learned in this phase. These levels of using the PRIDE skills were maintained even after coaching sessions ended. Changes were observed in accordance with the multiple baseline design, only showing change when that particular skill set was taught to the teachers. Specifically with the PRIDE skills, the most notable changes occurred with levels of praise, reflections, and behavior descriptions. Notably, the daily rates with the highest level of PRIDE skills were CDI coaching days, when the coach was targeting that behavior. Additionally, the results indicate that, particularly with Class A, there was not an immediate increase in PRIDE skills usage directly after the didactic meeting which taught the PRIDE skills. It was not until the first coaching session that there were significant increases in PRIDE skill usage. This supports the necessity of in-vivo coaching in order for teachers to translate skills learned in didactic form to the classroom.

Overall, teachers in both Class A and Class B demonstrated decreases in the "Avoid" skills, which includes Negative Talk and Commands. The TDI phases teaches teachers the difference between Direct Commands (DC) and Indirect Commands (IC), and encourages teachers to use DC instead of IC whenever commands are necessary. Accordingly, this study found that levels of DC remained the same while levels of IC decreased significantly during the TDI phase. Overall levels of commands therefore, decreased due to a decrease in IC, not a decrease in DC. Additionally, the "Avoid" skills also encourage the use of thoughtful, meaningful questions. In this study, there was no substantial change in the overall level of Questions. However, this study measured all questions and did not differentiate between meaningful, educational questions and superfluous questions (e.g. "Are you ready to brush your teeth?") On the other hand, this

study did measure questions that are really hidden, indirect commands ("Could you come here please?") As mentioned earlier, there was an overall decrease in IC, suggesting that the remaining questions were likely more meaningful and educational in nature. In future studies, questions could be measured more systematically in order to separate meaningful questions from unnecessary ones.

It was originally hypothesized that reductions in Negative Talk (NTA) and Commands would occur in the CDI phase. However, the results showed that the largest reductions in these target behaviors actually occurred in the TDI phase. There are a number of reasons that this may have occurred. According to behavior modification principles, it is important to understand the purpose of a behavior that one seeks to modify. In this case, the likely function of NTA is classroom management (i.e. to teach children the correct ways to behave in the classroom setting). However, a key aspect of eliminating an undesirable behavior is identifying and teaching a *replacement behavior* that serves the same function. In this case, teachers are explicitly taught the replacement behaviors in TDI, not CDI. Teachers have more strategies in the TDI phase for classroom management, such as Direct Commands and the Sit-and-Watch technique. Because of this, teachers were likely able to incorporate those skills such that they did not need to rely as heavily on NTA for classroom management purposes.

For Commands, there was a significant reduction in both Direct Commands (DC) and Indirect Commands (IC) from CDI to TDI phases. The difference between DC and IC was targeted during the TDI phase, so the reduction in IC was expected in the TDI phase. However, there was also an unexpected decrease in DC in the TDI phase. This may be explained by teachers' use of other positive classroom management techniques

from the CDI phase, including the PRIDE skills and differential social attention as well as the newly taught Sit-and-Watch technique. Because of these other newly learned strategies for classroom management, teachers may not have felt the need to use as many commands (including Direct Commands) in order to manage the classroom.

Hypothesis 2. Students Will Show a Decrease in Disruptive Behaviors, based on Observational Data.

Six disruptive behaviors were measured: Aggressive Behavior (AB), Destructive Behavior (DB), Yelling (Y), Crying (C), Talking Out of Order (TO), and Being Out of Area (BA). Only TO and BA were observed during circle time. Anecdotally, the other behaviors were noted during free play and clean up time; however, whole classroom child behaviors were only coded during circle time. In future studies, it would be beneficial to have observers code child whole classroom behavior during free play and clean up time. TO showed the largest increase in the maintenance phase in Class A, after coaching had ended. Perhaps this is due to a delayed effect that the CDI and TDI skills had on the children's behaviors. However, Class B did not demonstrate different levels of TO. There was significant difference in BA from Baseline to CDI in both Class A and Class B. BA was most often coded when children were fidgety on their carpet square or otherwise moving their bodies out of the designated carpet area. Because CDI focuses on teaching teachers to focus on praising and labeling appropriate behavior (e.g. "Johnny, I like the way you are staying on your square."), it likely immediately contributed to changing students' remaining in their designated area so they could receive similar praise and attention.

Hypothesis 3: Students Will Show a Decrease in Teacher Ratings of Child's Protective

Factors and Behavioral Concerns after the TCIT Intervention.

Each teacher completed the Devereux Early Childhood Assessment for

Preschoolers, Second Edition (DECA-P2) for each student, both pre-intervention and

post-intervention in order to assess the students' social and behavioral competence. The

DECA-P2 yields five domains scores: *Initiative*, which measures the child's ability to use

independent thought and action to meet his or her needs; *Self-Regulation*, which

measures the child's ability to experience a range of feelings and express them in words

and actions that society considers appropriate; *Attachment/Relationships*, which assesses

the mutual, strong, and long-lasting relationships between the child and significant adults

such as parents, family members, and teachers; *Total Protective Factors*, which is a

combination of the abovementioned factors into an overall strength of child's protective

factors; and *Behavioral Concerns*, which measure the child's social and emotional

problems. However, due to inconsistencies of child behavior ratings between the Head

Teacher and Assistant in Class B, no further analyzes could be conducted on Class B's

DECA-P2 data as it would not be meaningful to run analyzes on inconsistent ratings. The

Head Teacher and one Instructional Assistant from Class A consistently and reliably

rated children both pre-intervention and post-intervention and therefore could be

analyzed. Only the Class A Head Teacher's ratings showed significant differences post-

intervention on the Initiative, Self-Regulation, and Total Protective Factors scale.

However Instructional Assistant I did not show significant differences in any of the

measured DECA-P2 domains. Because of these differences in opinion, it is difficult to

determine if the children's protective factors and/or risk factors changed at all during this

intervention. Originally, this was the rationale for correlating children's observational

data with DECA-P2 data in order to a) determine if teacher's perceptions matched

observational data and b) to provide additional evidence that children's behavior likely

changed as a result of the TCIT intervention. However, the Behavioral Concerns (BC)

scale would have most likely correlated the most with the six disruptive behaviors

measured and the BC scale was not reliably rated so these analyses could not be

performed. Additionally, as mentioned earlier, there was a sampling bias in measuring

many of the disruptive behaviors, such that these behaviors mostly occurred during free

play and clean up time and were not recorded by observers who only recorded those

behaviors during circle time. In future studies, it would be beneficial to attempt to record

these behaviors throughout the different academic and play times in order be able to

correlate this data with teachers' ratings.

Hypothesis 4: The coach will use PRIDE skills (LP1, LP2, LP3) more than other types of

coaching comments throughout all phases of the intervention.

In accordance with the hypothesis, labeled praise for the teachers' use of labeled

praise, reflections, behavior descriptions, positive touch (LP1) and labeled praises for

other positives, unlabeled praise, enjoyment, and imitation (LP2) accounted for most of

the coach's statements. This is line with the suggestions of Shanley and Niec (2010), who

suggested that the coach model positive verbalizations, providing reinforcement for

appropriate behaviors that the coach wishes to increase, therefore shaping their repertoire.

Next, the coach used descriptive labels, describing the teachers' behavior in a non-

evaluative way. Eyberg (1999) suggests that the coach pay attention to the qualitative

aspects of the interaction, providing observations of the interaction. In addition to simply

describing what the coach observed the teacher doing, he also provided evaluative statements that commented on upper level management/emotion development issues (e.g., "Your cues are helping her learn patience.") Additionally, in accordance with Eyberg (1999), the coach provided some directives (Direct Commands and Indirect Commands), although it was much more limited than praise and basic and complex descriptives.

Hypothesis 5: The coach will change the content of his comments over time, moving from a focus on PRIDE skills to more Higher Order (HO) statements.

There was not a noticeable change in content over time alone in the coach's comments; however, there were changes based on many other factors. The first factor was whether the coach was coaching a newly trained teacher/assistant or one that had previously been trained in TCIT. There were comparable rates of praise between the previously and newly trained teachers. However, there was a significant difference in levels of Descriptive Labels, which described teachers' behaviors in a non-evaluative way (e.g., "That was a reflection."). Newly trained teachers required two to three times more descriptive labels than previously trained teachers. Presumably, this allows newly trained teachers to be more aware of what they are saying and doing and how that fits in with the skills learned in TCIT. Newly trained teachers also had more Direct Commands in the coach's comments than previously trained teachers. This includes the coach prompting the teacher what to say or do in the moment (e.g. "Describe what Jane is doing.") Such comments allow teachers to see in the moment when it is a proper time to use a particular TCIT skill (e.g. Behavior Description).

The second factor that determined a change in coach's comment content was whether the coach was coaching the head classroom teacher or an instructional assistant. The head teachers required less praise as the coaching progressed and limited Direct/Indirect Commands. Instructional Assistants required an increasing amount of praise throughout the intervention and slightly more Descriptive Labels and Direct Commands. This is similar to the difference between newly trained teachers and previously trained teachers. Instructional assistants needed more guidance in what to do or say in the moment and to learn to translate the TCIT skills, perhaps due to less amount of formal pedagogy education in comparison to head teachers.

Third, there were noticeable differences in the content of the coach's comments between the two phases of CDI and TDI. This will be discussed in further detail in the next section.

Hypothesis 6: There will be a change in the content of the coach's statements from CDI to TDI. During CDI, the coach will likely use more PRIDE skills, while during TDI the coach will likely use more Direct Commands and Higher Order Statements.

Both classrooms showed an overall difference in the coach's use of praise between the phases of CDI and TDI. Specifically, the levels of Labeled Praise for Teachers' Use of Labeled Praise/Reflections/ Behavior Descriptions/Positive Touch (LP1) were reduced in TDI in comparison to CDI levels. In Class A, there was an increase in Higher Order (HO) statements in TDI as compared to CDI levels. Descriptive Labels started off high in both the beginning of CDI and the beginning of TDI and decreased as the phase continued. This suggests that high levels of Descriptive Labels are necessary in the coaching sessions directly after the didactic training session in order to

acclimate the teachers to the new vocabulary and skills learned in the training and to translate them to the classroom setting. Interestingly, these same trends were not observed in Class B. There were variable rates of Higher Order Statements and Descriptive Labels, with no clear pattern between CDI and TDI phases. There was an increase in Direct Commands in TDI for Class B as compared to CDI. However, it may be difficult to compare the coaching between Class A and Class B as Class A received six total coaching sessions (four in CDI and two in TDI) and Class B received only four total coaching sessions (two in CDI and two in TDI) because of the multiple baseline design.

Table 15

Comparison of Other JMU TCIT Research Studies

Dissertation Author	Devers, K. A. (2014)	Rossi, J. L. (2014)	Studivant, K.M. (2015)
Behaviors Observed – Teacher	Negative Talk, Direct Commands, Indirect Commands, Labeled Praise, Unlabeled Praise, Questions, Reflective Statements, Behavior Descriptions, Positive Touch	Negative Talk, Direct Commands, Indirect Commands, Labeled Praise, Unlabeled Praise, Questions, Reflective Statements, Behavior Descriptions, Positive Touch	Negative Talk, Direct Commands, Indirect Commands, Labeled Praise, Unlabeled Praise, Questions, Reflective Statements, Behavior Descriptions, Positive Touch
Standardized Measures of Child Behaviors	DECA	DECA DESSA	DECA-P2
Amount of Training	Two 3 Hour Sessions (CDI and TDI), offered one month apart. 30-minute weekly consultations, the morning before coaching to review concepts, give and receive feedback, and select target behavior for sessions	Study 1: CDI 1 (2.5 hours), CDI 2 (2 hours), TDI (2 hours) PLUS weekly 30-minute meeting for 5 weeks Study 2: Two 3 Hour Sessions (CDI and TDI) PLUS weekly 10-minute consultations	Two 3 Hour Session, approximately one month apart. No weekly consultations
Amount of In- Vivo Coaching (per teacher)	5-8 Hours Total, which included 20 minute coaching sessions, 2 days a week, for 10-14 weeks	Study 1: ~ 2 hours total, including 20 minute coaching sessions, once per week, for 6 weeks Study 2: ~2.5 hours total, including 25 minute coaching sessions, once per week, for 6 weeks	~1.5-2.5 Hours Total, which included 25 minute coaching sessions, once per week, for 5 weeks
Results— Teacher Behaviors	Overall 10-15% increase in PRIDE skill use. Maintained or improved at 8 month follow up Decrease in Negative Talk by ~1% (2-5% Baseline to 1-4% end of TDI) Decrease in Commands by 10% (from 25% BL to 15% at end) Decrease in Questions by ~10% (18-25% at BL to 9-15% at end)	Overall 2-3% increase in PRIDE skills*. No maintenance phase. Net increase in Negative Talk at end of intervention (by 1-2%) Decrease in Commands by 6% (from 23% at BL to 17% at end) Decrease in Questions by ~8% (from 19% to 11%) *on a different scale than Devers & Studivant studies	Overall ~10% increase in PRIDE skill use from baseline to short maintenance phase (2 weeks after last coaching session) Decrease in Negative Talk by ~2.5% (2-3% in Baseline to less than 0.5% in TDI). Maintenance phase ~1.5% Decrease in Commands by ~10% (from 22% Baseline to 12% in TDI). In Maintenance phase, overall decrease by 5%. No significant change in Questions across classrooms/phases

Results—Standardized Measures of Child Behaviors	As measured by DECA data pre-intervention and post-intervention: -Increased Attachment, Initiative, Self-Control, Total Protective Factors -Decreased Behavior Concerns	As measured by DECA data pre-intervention and post-intervention: -Increased Total Protective Factors. No changes in Behavior Concerns As measured by DESSA: Increased Optimistic Thinking, Social Awareness, Decision Making, Self-Awareness	As measured by DECA-P2 data pre-intervention and post-intervention: -Increase in Initiative, Self-Regulation, and Total Protective Factors (*Head Teacher ratings only). No changes in Attachment. Behavior Concerns unable to be assessed due to lack of inter-rater reliability.
Results—Coaching Behaviors	Not Applicable. Coaching behaviors not measured in this study.	Labeled Praise was the most common statement used in coaching. Coaching was consistent between newly trained and previously trained teachers. *Not based on independent observer data, no inter-rater reliability, frequency not interval recording, data not collected throughout duration of the study	Labeled Praise for LP, RF, BD, PTO (LP1) most common statement used in coaching. Newly trained teachers required 2 to 3 times more Descriptive Labels (DL) than previously trained teachers. Newly trained teachers also required more Direct Commands (DC) than previously trained teachers. Instructional Assistants needed more guidance in what to do/what to say in the moment than Head Teachers. Specifically, they required more Descriptive Labels (DL) and Direct Commands (DC). Increase in use of Higher Order statements in TDI*. Higher levels of DL at the beginning of CDI and beginning of TDI.* Suggests that DL are necessary in coaching sessions directly after didactic training to acclimate teachers to the new skills learned.* *Classroom A only

As seen by Table 15 above, Devers (2014) demonstrated the best overall results in PRIDE skill acquisition and "Avoid" skill reduction. Specifically, Devers (2014) showed an overall 10-15% increase in PRIDE skill use at the end of the intervention, with these levels being maintained or increased at the 8-month follow up. In the current study, there was an overall 10% increase in PRIDE skill use at the end of the intervention; however, there was no follow up data to compare to the Devers (2014) results. Levels of decreases

in Negative Talk and Commands are most comparable between Devers (2014) and the current study with reductions of approximately 1-2% in Negative Talk and approximately 10% reductions in Commands. However, Devers (2014) and Rossi (2014) showed better reduction in Questions (10% and 8% respectively) while the current study showed no significant changes in Questions.

There are some possible explanations for the better results in the Devers (2014) research. For example, in Devers (2014) the baseline data ranged from 10-23 days, CDI phase lasted between 9-13 days, and the TDI phase lasted for 18-27 days. Longer phases allow for greater examination of trends among that phase and also allows teachers more time to learn and apply the skills learned before having to learn and apply additional skills. Additionally, Devers (2014) also had additional coaching and training sessions: two 3 hour sessions, one month apart, with weekly 30 minute consultations. Each teacher received between 300 to 450 minutes of direct coaching throughout the intervention. This is compared to the current study, where the teachers received two 3 hour sessions, approximately one month apart, with no weekly consultations. Class A teachers received approximately 150 minutes of coaching total and Class B teachers received approximately 100 minutes of coaching total.

Upon comparison, the results of these studies suggest that more time coaching and additional training increases skill acquisition and retention. For the current study, specifically the skills of Reflections and Behavior Descriptions, were high mostly on coaching days, but decreased significantly on days where the coach was not present. However, in Devers' (2014) research, these behaviors showed much higher rates among all coded days, not just coaching days. Perhaps the skill of Reflections and Behavior

Descriptions are harder to acquire. Also, Devers, Rossi, Stokes & Budd (2013) completed an 8-month follow up in order to determine if the increased levels of PRIDE skills were maintained 8-months after the last coaching session. Indeed, the higher levels of PRIDE skills were maintained at similar levels as measured during the previous TDI phase. In the current study, there were only four measured points after the last coaching session which occurred the days directly after that last session. Many PRIDE skill behaviors did maintain during those four measured days; however, Negative Talk, Commands, and Questions did not maintain well during the maintenance phase. These studies suggest that additional coaching and direct consultation may contribute to improved skill acquisition and retention. Additionally, Devers, Rainear, Stokes & Budd (2012) showed improvements in DECA ratings on all of the measured domains (Initiative, Self-Control, Attachment, Total Protection Factors) and decreased Behavioral Concerns.

Interval Validity

Interval validity refers to how well an experiment is conducted. In other words, it refers to if an experiment avoids confounding variables in way that causal conclusions can be warranted (Kazdin, 2011). Several factors could be considered threats to the internal validity of this study. First, there could a selection bias. Due to the nature of studies conducted within a school setting, teachers and classrooms were selected by the principal. He selected teachers and classrooms that he believed would be agreeable to the study and also benefit from the TCIT intervention. Additionally, one head teacher and one instructional assistant had been participants in a TCIT study previously but requested to have continued training. These factors could have influenced the ability to draw causal conclusions.

Second, it could also be possible that the students showed maturation effects. There is a level of social and emotional development that is expected of a preschooler from the beginning of the school year to the end of the school year. The students are becoming more accustomed to what school is like and how they should and should not behave. These maturation effects could have influenced the change in child behavior. However, due to the multiple baseline design, this is unlikely, as there were changes observed directly after the CDI intervention occurred, so it is more likely that these changes are attributed to the CDI training and not maturation effects since it occurred suddenly. However, DECA-P2 data would be susceptible to these effects and therefore should be interpreted with caution.

Additionally, both observers and teachers were aware of what the expected findings were of the study (as they were explicitly taught to increase PRIDE skills and decrease "Avoid skills in the intervention) and when the phases changed. Of course, the teachers need to be aware of what the intervention is supposed to do in order for them to increase their levels of PRIDE skills and decrease the "Avoid" skills. However, it would be beneficial if the observers did not know at least when the phases changed from CDI to TDI. However, many observers were chosen out of convenience (graduate and doctoral students) who were also involved in the trainings themselves. In future research, it would be beneficial to have observers who were also not involved in the training phases. Additionally, the teachers may have had a vested interest in rating the children lower on DECA-P2 scales initially and higher on the DECA-P2 scales post-intervention as they want to believe that the children changed as a result of the intervention and their TCIT interactions with the children. In the future, it would be beneficial if there were at least

one instructional assistant that did not participate in the TCIT intervention and only rated the students pre-intervention and post-intervention on the DECA-P2 scales. This would reduce the rater's biases to rate in a certain fashion.

Another factor influencing internal validity is experimental control. In a multiple baseline design, a visual analysis of graphs is regarded as the most stringent way to evaluate the effects of the intervention (Kazdin, 2011). All of the multiple baseline graphs were analyzed according to Parsonson's "fine-grained visual analysis" (2003) guidelines. Overall across both PRIDE skills and "Avoid" skills, there was better experimental control with Class B. This includes prompt changes in level and trend in the transition between baseline and intervention, increased variability and/or stability (depending on the behavior) after the intervention, and less overlap of points between the baseline and intervention phases. As noted before, these results may be better in Class B because the teachers were both newly trained in TCIT. Notably, there was often not a prompt change in level on the first intervention point in Class A and sometimes in Class B. However, there was often a large change on the first coaching day of an intervention phase. This reduces the level of experimental control for the CDI or TDI skills; however, it strengthens the argument that coaching is a key aspect of the TCIT intervention.

External Validity

External validity refers to the extent to which the results of this study can be generalized to other situations and to other people (Kazdin, 2011). One factor that could influence the level that these results could be generalized is that only two classrooms within one school were included in this study. In the future, it would be most beneficial to include multiple classrooms among various schools. However, there was a diverse

population of students within these two classrooms. The demographics of the preschool children included African-American, Hispanic, Asian, East Indian, and Caucasian children. Additionally, English was a second language for many of these children. This increases the level of generalizability to other populations. Another factor that could influence generalizability is the presence of the observers in the classroom. It is possible that the mere presence of having the observers in the classroom might influence how the teachers and/or students behave. Eventually, the hope would be that the TCIT intervention would be conducted with only the didactics and coaching and without the observers coding in the classroom for multiple days a week. A third factor affecting external validity is the small sample size. It would be beneficial for future research to include a randomized controlled trial with multiple classrooms, where the classrooms/teachers would be randomly assigned to either a control condition or an experimental condition in order to draw more conclusive, causal conclusions. Finally, this study only used studied the coaching behaviors of one coach. This limits the ability to generalize effective coaching principles to other coaches.

Limitations

One limitation of the study included the time of year that the intervention was implemented. Due to the amount of time required to train observers and to organize this intervention, the TCIT intervention did not begin in the school until the second half of the school year. Unfortunately, it would have been the most beneficial to start this intervention at the beginning of the school year, before expectations and classroom interactions styles were established. Additionally, because this study began in the winter, there were multiple snow days that impacted the number of coaching days and the

number of data points within each phase. As mentioned earlier, it would have been beneficial to have additional data points in each phase in order to more closely analyze trends within that phase. Additionally, there were a limited number of total coaching days (six for Class A and four for Class B). Starting the intervention at the beginning of the school year would have allowed for longer CDI and TDI phases with more prolonged coaching periods.

Additionally, new technology was used for the bug-in-the-ear device. In previous studies, the bug-in-the-ear device included wires and bulky equipment. This study used a hands-free Bluetooth technology in order to aid with the ease of its use. However, whenever new equipment is used, there is a learning curve. It would have been beneficial to have the teachers practice more extensively with the bug-in-the-ear equipment before the first coaching day to increase the level of fluidity between teaching and applying the bug-in-the-ear equipment.

Recommendations for Future Research

Results from the current study, as well as other TCIT studies, is encouraging. Preliminary findings suggest that the program is helpful in teaching teachers skills that build more positive relationships with their students. As mentioned earlier, it would be beneficial to extend these results with a randomized controlled study, perhaps comparing TCIT with other models of building teachers' skills with promoting positive classroom environments, such as teacher workshops.

Because there is limited research in the area of coaching with TCIT, there is much room for further growth and research. First, because this study focused on the content of one coach's statements, there is limited generalizability. Future research should include

multiple TCIT coaches in order to increase external validity. Next, the current study measured non-contextual aspects of coaching, particularly the specific content of the coach's comments. However, in order to generalize to develop coaching guidelines, it would be particularly helpful to know the context of when the coach makes certain comments. This would require knowledge of what the students are doing and saying in the classroom and also a record of what the teachers did and said in response to the students. Video recording in the classroom during coaching sessions would enable this type of research; however, one would need to pay close attention to issues of confidentiality and consent in order to ethically perform such research.

Eyberg (2005) developed several coaching principles including brevity, speed, positivity, and accuracy. Positivity was measured in this study through the dimensions of Labeled Praise (LP1, LP2, and LP3) and Unlabeled Praise (UP) and was indirectly measured with Critical Statements (CS, i.e. the lack thereof). Accuracy, which is defined as correctly identifying the teacher's behaviors, was measured by Incorrect Statements (IS). Due to the nature of interval recording, data were not collected in regard to number of coaching statements made within a 10 second time frame or the length of each particular comment (brevity and speed). Future research should also measure these coaching dimensions in order to further develop criteria for effective TCIT coaching.

The current study has also noted differences in coaching length, number of coaching sessions, and booster sessions between various TCIT studies. It would be beneficial to study these aspects of coaching further in order to determine the optimal number of coaching sessions and length of training that is the most time efficient yet still yields positive results.

Additionally, a key unmeasured variable in the coaching process is the relationship between the coach and the TCIT teachers. Without a positive rapport, it would be difficult to imagine such an intervention as being successful. In the current study, the coach would always interact with the teacher after the coaching to process the interaction. It would be beneficial for future research to analyze how the coach maintains a positive rapport while giving feedback and what personality characteristics teachers find most helpful in a TCIT coach.

Another recommendation would be to evaluate long-term changes in teacher and child behavior. Additional follow ups month after the intervention ends could evaluate whether teachers retained skills. A longitudinal study could evaluate children's behavior change in order to determine if stronger teacher-student relationships yielded better outcomes.

Because coaching is such a key aspect of the TCIT program, there have been questions raised about its sustainability. One solution to this problem is developing software for remote coaching, where the coach could provide coaching from another location. This could increase the coach's availability to coach in numerous classrooms for longer periods of time. There is preliminary research in this area (Brearly, Cannady, Barkaia & Stokes, 2014) and warrants further investigation. Another solution to this problem could be training teachers who have graduated from the TCIT program to become coaches themselves. This could be an adaptation of the mentorship model already in existence in most school divisions, where a more experienced teacher mentors a new teacher.

Lastly, this study only evaluated one coach, who was a licensed clinical psychologist and licensed behavior analyst with over thirty years of experience. A study evaluating multiple coaches would be beneficial to examine the variations in coaching style and how that impacts the efficacy of the intervention.

Implications for Practice

There has been an increase in the positive behavior support movement, largely due to the Individuals with Disabilities Education Improvement Act (IDEA, 2004). This was developed from the concept that positive reinforcement is the best way to shape a child's behavior. TCIT is a systematic program designed to focus on praising the child's positive behaviors and reducing punitive negative talk and consequences. TCIT also serves as a social-emotional universal prevention program, providing all students with high quality teacher-student interactions, which would align well with the Response-to-Intervention model.

Additionally, the key component of many teacher effective teacher training programs is the in-classroom coaching method, which allows for better learning and retention of new skills. This is a shift from the typical relatively passive, one session teacher workshop previously dominating teacher training. Expanding on the sustainability of coaching methods could greatly improve and change the face of teacher training and professional development to more interactive, individualized, and continuous teacher support practices.

Conclusion

Overall, the results of this research indicate that TCIT is a promising intervention to increase teacher positive interaction skills and to promote positive behavior in the

classroom. It is a highly individualized and interactive program as the coach provides in-vivo feedback and support to the teachers. Coaching is a key aspect to the effectiveness of the program and specific coaching behaviors contribute to better teacher and student outcomes. The results of this study, other TCIT studies, and other teacher skill building programs suggest that coaching is a highly effective method to change a teacher's skill repertoire in order to support student development.

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Appendix A
<u>Child Directed Interaction (CDI) Training Materials</u>

PRIDE SKILLS	REASON	EXAMPLES
PRAISE appropriate behavior **P**	• Causes the behavior to increase. • Lets child know what you like. • Increases self-esteem. • Adds to the warmth of the relationship. • Makes both teacher and student feel good.	Good job putting the toys away! I like the way you're playing so gently with the toys. Great idea to make a fence for the horses. Thank you for sharing with me.
REFLECT appropriate talk **R**	• Lets the child lead the conversation. • Shows the child that you are listening. • Demonstrates that you accept and understand the child. • Improves child's speech and vocabulary. • Increases verbal communication between teacher and child.	Child: I drew a tree. Teacher: Yes, you made a tree. Child: The doggy has a black nose. Teacher: The dog's nose is black. Child: I like to play with the blocks. Teacher: These blocks are fun.
IMITATE appropriate play **I**	• Lets the child lead. • Shows child you approve of his/her game. • Makes the game fun for the child. • Increases the child's imitation of the things that you do. • Shows that you are involved and paying attention. • Teaches child how to play with others and take turns.	Child: I put a nose on the potato head. Teacher: I'm putting a nose on Mr. Potato Head too. Child: (drawing circles on a piece of paper). Teacher: I'm going to draw circles on my paper just like you.
DESCRIBE appropriate behavior **D**	• Lets the child lead. • Shows child that you are interested. • Teaches child concepts. • Models speech for the child. • Holds child's attention on the task. • Organizes child's thoughts about the activity.	You're making a tower. You drew a square. You are putting together Mr. Potato Head. You put the girl inside the fire truck.
ENJOY **E**	• Lets child know that you are enjoying the interaction. • Increases the warmth of the play. • Keeps the child interested.	Child: (carefully placing a blue Lego on a tower). Teacher: (gently touching the child's back) You are REALLY being gentle with the toys.

TEACHER-CHILD INTERACTION TRAINING
Child Directed Interaction Overview

MORE RULES	REASON	EXAMPLES
Reduce unnecessary **COMMANDS**	• Takes the lead away from child. • Can cause unpleasantness.	<u>Indirect Commands</u>: Let's play with the farm next. Could you tell me what animal this is? <u>Direct Commands</u>: Give me the pigs. Settle down. Look at this.
Reduce unnecessary and "rapid-fire" **QUESTIONS**	• Leads the conversation. • Many questions are commands. • Questions require an answer. • May seem like you aren't listening to the child or that you disagree.	We're building a tall tower, aren't we? What's this? What's this? What are you building? Do you want to play with the train? You're putting the girl in the red car? How come?
Avoid **NEGATIVE TALK** and sarcasm, and reduce corrections	• Often increases the criticized behavior. • May lower child's self-esteem. • Creates an unpleasant interaction.	That wasn't nice. I don't like it when you make that face. Do not play like that. No, sweetie, you shouldn't do that. The animal doesn't go there. Now that was smart! (said when child drops toy) No, not the yellow one.

TEACHER-CHILD INTERACTION TRAINING
Child Directed Interaction Overview

BEHAVIOR MANAGEMENT	REASON	EXAMPLES
IGNORE negative behavior (unless it is dangerous, destructive, or negatively impacting other children) a. Avoid looking at the child, smiling, frowning, etc. b. Be silent. c. Ignore <u>every time</u>. d. Expect the ignored behavior to increase at first. e. Continue ignoring until child is doing something appropriate. f. Praise child immediately for behavior that is opposite the annoying behavior.	• Helps the child to notice the difference between your responses to good and bad behavior. • Although the ignored. behavior may increase at first, consistent ignoring decreases many behaviors. • Praising the positive opposite behavior lets the child know what he or she can do to please you – and win your approval. • Praising the opposite can easily be used in groups.	Child: (talks back to teacher and picks up toy). Teacher: (ignores talking back) Thank you for picking up the toy. Child: (pushing too hard on a crayon) Teacher: (ignores behavior until it stops and then praises child) Good job using the crayon carefully. Child: Look Ms. Vikki! Look Ms. Vikki! Look Ms. Vikki! (continues) Teacher: (looks away as if nothing happened) Child: (finally stops) Teacher: I like it that you are being quiet now. Child: (Whining) Teacher: (ignores whining and talks to self or other child until whining stops) I can see that you have your paper and crayons on the table and are ready to color! Child: (Jumping around in line) Teacher: (ignores jumping and says to child who is <u>not</u> moving) Wow, I really like how you are standing still in line.
STOP THE PLAY for aggressive and destructive behavior.	• Teaches the child that good behavior is required in order to be able to play with you. • Shows child that you are setting limits.	Child: (hits teacher). Teacher: (This can't be ignored.) Our playtime is stopping because you hit me. Child: Oh, oh, oh teacher I'm sorry. Please, I'll be good. Teacher: Our playtime is over now. Maybe next time you will be able to play nicely.

Praise

All **praise** is good for the child's <u>self-esteem</u> and for building teacher/student <u>relationships</u>. However, for <u>increasing appropriate behavior</u>, **labeled praise** is much more effective than **unlabeled praise**.

Unlabeled praise is global and nonspecific.

> Examples: "Great!"   "Thanks for that."   "Good boy!"   "Nice job!"
>
> "Terrific!"   "You're wonderful!"   "I'm so proud of you!"

Labeled praise tells the child specifically what you like about his or her behavior. Once the child knows exactly what you like, he or she is more likely to do it again.

> Examples: "Nice job of putting the toys   "Good boy for sitting up
> away!"   straight!"
>
> "I'm so proud of you for sharing with the other children!"

Rule	Reason	Examples
Give **<u>Labeled Praise</u>** for appropriate behavior.	Causes the behavior to increase. Lets child know what you like. Increases self-esteem. Adds to the warmth of the relationship. Makes both teacher and student feel good.	"Terrific counting" "I like the way you're playing so quietly" "You have wonderful ideas for this game" "I'm proud of you for remembering your letters"

How to Create Great Labeled Praises

WAYS TO PRAISE IT . . .	**PRAISABLE BEHAVIORS . . .**
That's a great way to . . .	Play gently with the toys
You're doing a nice job of . . .	Using your indoor voice
I like it when you . . .	Share
It's neat that you remembered to . . .	Draw a picture for friend/family
What a wonderful idea to . . .	Say please, thank you (manners)
Thank you for . . .	Sitting still
Nice job of . . .	Following directions right away
How sweet of you to . . .	Make one for me too
You should be proud of yourself for . .	Working on task
I'm so happy with you for . . .	Keeping on trying
You are so polite to . . .	Help a friend
Good . . .	Listening
I like it when you . . .	Use your walking feet
It's nice that you are . . .	Sitting at the table with me
It's so cool that you're . . .	Putting the toys away all by yourself

Practice on Discriminating Labeled and Unlabeled Praise

Are the following statements <u>unlabeled praise</u> (UP) or <u>labeled praise</u> (LP)?

Statement	Unlabeled Praise?	Labeled Praise?
Wonderful job!		
Thank you for handing me the crayon.		
You're great!		
Nice job sitting.		
Good effort painting.		
Awesome.		
I like it when you're careful.		
That was kind of you to share.		
Thank you so much.		

How could you turn the following <u>unlabeled</u> praises into <u>labeled</u> praises?

Nice job!

_____

I am proud of you.

_____

You make me happy.

_____

Correct!

_____

You deserve a gold star.

_____

Reflections

A **reflection** is a statement that repeats back what the child has just said with the same meaning. The statement may be <u>extended</u>, <u>shortened</u>, or <u>elaborated</u>.

> Example: (Child):   "I put the sticker on the chart."
> (Teacher):   "Yes, you put the blue sticker on the chart all
> by yourself!"

<u>Extension</u>:
Child: I drew a house.
Teacher: You drew a house on your paper.

<u>Shortening</u>:
Child: I drew a house.
Teacher: A house.

<u>Elaboration</u>:
Child: I drew a house.
Teacher: You drew a big, red house.

<u>Rule</u>	<u>Reason</u>	<u>Examples</u>
<u>Reflect</u> appropriate talk.	Allows the child to control the conversation. Shows child you're listening. Demonstrates acceptance and understanding. Improves child's speech and vocabulary. Reinforces and increases verbal communication.	Child: I spelled my name. Teacher: Yes, you wrote John. Child: The camel got bumps on top. Teacher: It has two humps on its back. Child: I like to play with this castle. Teacher: This is a fun castle to play with.

Practice on Reflections

Of the following, which are <u>reflections</u>?

1. Child: I can make a smokestack.
   Teacher: You can make a big black smokestack!   ____

2. Child: The bunny goes hop-hop.
   Teacher: Hop-hop!   ____

3. Child: I want to play with paints.
   Teacher: I want to paint, too.   ____

4. Child: I'm driving the car fast.
   Teacher: The car is going very fast.   ____

5. Child: I like this book.
   Teacher: You like this book?   ____

6. Child: I've got a moo-moo
   Teacher: You've got a cow   ____

How could you reply to the following statements with <u>reflections</u>?

Child: (putting cars in box) I did it!

Teacher:_____

Child: This clown has green eyes.

Teacher:_____

Child: I'm scared to tell my mom I broke the lamp.

Teacher:_____

Child: What color show I use?

Teacher: _____

Child: I like to play outside.

Teacher:_____

Descriptions

A **behavioral description** is a statement saying <u>exactly</u> what the child is doing. It is giving a <u>play-by-play</u> of what the child or the child's hands are doing right now or within the past 5 seconds. **Descriptions** strengthen the child's current behavior by providing attention for it. They are most useful during appropriate behavior and <u>before</u> misbehavior occurs.

Example: (Child):   (Building a car with Legos.)
                  (Teacher):   "You're building a car. You put the blue Lego next to the green Lego."

Rule	Reason	Examples
Describe appropriate behavior.	Allows the child to lead.	You found a red block.
	Shows child you're interested.	You're making a tower.
	Teaches concepts related to child behavior.	I see you wrote your name.
	Models speech.	Jamie (child) is singing his ABC's.
	Holds child's attention.	You washed your hands.
	Organizes child's thoughts about play.	We are building a house.
		You are drawing carefully.
	Strengthens the behavior described.	

Practice on Descriptions

Which of the following statements are <u>behavioral descriptions</u>?

Statement	Behavioral Description?
The cowboy has a red scarf.	
You are making a big apple.	
I'm drawing a helicopter.	
I see you are getting more blocks.	
Are you going to play with the cars?	
You are putting the piece in the puzzle.	
We are painting clouds on the paper.	
Your eyes are brown.	

How could you use behavioral <u>descriptions</u> for the following child behaviors?

I built a tall tower.   _____

I found the cars (holding up two cars). _____

I colored this horse black like Black Beauty.   _____

(Hopping on one foot.)   _____

(Washing hands.)   _____

I'm making a house.   _____

__Negative Talk__

We all know that children sometimes misbehave or make mistakes. As adults, we often tell children what they have done wrong or that we don't approve of their behavior. We call this Negative Talk.

What is Negative Talk?

♦ Expresses <u>disapproval</u> of the child or the child's characteristics, activities, products, or choices. It is often used to tell a child to <u>stop</u> doing something.

   Examples   "That's not nice"   "Your letters are crooked"   "Stop fighting please"
   "Not so fast"   "Don't eat that in here"   "Your hands are filthy"

♦ <u>Correcting</u> the child's behavior by pointing out what the child has done wrong, even in a nice way.

   Examples: "Not so big"   "No, that's not blue"   "That's not quite right"
   "No, no"   "Oops, you dropped it"   "Wrong way, honey"

♦ Another type of negative talk is sassy, sarcastic, and/or rude speech.

   Examples: "That was smart!" (sarcastically)   "What's up with you today?"
   "You're driving me crazy!"   "Clean that up or else!"

Reasons to avoid Negative talk:
♦ It often increases the behavior you want the child to stop doing
♦ Negative talk may lower the child's self-esteem
♦ It creates an unpleasant interaction
♦ Sarcastic talk can be confusing for the child when your words are saying one thing and your tone is telling something else

What teachers can say instead of Negative Talk:

Examples of negative talk	Examples of positive talk
You're being nasty	Please use kind words
Not the red one	The blue one might fit better
Stop poking her	Please keep your hands to yourself
Johnny, stop talking	I like how Sophie is listening quietly
You aren't allowed to play in that area	Please go to your assigned play center
Don't use the computer right now	It's time to clean up
What's your problem? (sarcastically)	Sometimes we have hard days
Put it down or else!	Please leave crayons on this table
What are you supposed to be doing now?	Please follow directions
You made a messy flower	I see you are drawing with blue crayon

Practice on Reducing Negative Talk

Which of the following statements are Negative Talk?

Statement	Negative Talk?
Please quit running in the hallway.	
Children, it is about time to clean up now.	
You should know better than that, Ronnie.	
Child: I made a triangle. Teacher: No, honey, that's a square.	
Use your quiet voices inside.	
Child: Are there any more cookies? Teacher: No, that's all the cookies we have today.	
You made this mess so you need to clean it up.	
I know you'd like to have snack, but we have to finish our art project first.	

How could you turn the following <u>Negative Talk</u> statements into positive statements?

Don't run in the hallway.

_____

That's the wrong letter, sweetie.

_____

Stop fighting so we can go to recess.

_____

Not quite right.

_____

Not so fast, please.

_____

Teachers are Models for Their Students

Teachers are very important people in their children's lives. Children often want to be like their teachers. Some children even spend more time with their teachers during the week than they do with their parents.

Children learn things teachers teach them on purpose, such as colors, letters, and numbers. They also learn by watching their teachers. In this way, teachers sometimes model behavior they don't want children to imitate.

♦ Children notice every little thing. They spend a lot of time watching their teachers. They learn good <u>and</u> bad behaviors by observing and imitating.

♦ Sometimes, teachers accidentally do things that they don't want their children to do, such as yelling or making overly critical comments.

- This happens most in frustrating situations when you are angry. Children watch their teachers to learn how they themselves should deal with frustrating feelings or conflict with others.

♦ Teachers who do not deal with conflict or frustration calmly (e.g., sarcasm, talking critically about others, yelling) teach their children to do the same.

♦ It is very confusing for children if they watch their teachers behave in a certain way, such as yelling when frustrated, and are then punished for yelling when frustrated.

- You are a role model for your students
- You are one of your students' most important examples of how to act in school and other social situations
- Your students learn to behave like you

WHAT CAN YOU DO WHEN YOU ARE ANGRY?

♦ If you deal with your anger with behaviors that you do not want to see in your students, do not let your students see those behaviors.
- Until you find other ways to deal with your feelings, leave the presence of your students when yelling or making critical comments.

♦ If your anger is directed toward your students because of their misbehavior, use the following steps:
- Recognize when you are becoming angry with your student, and leave the situation for 60 seconds if possible.
- During that time, distract yourself with something else (do not think about what your student did to make you angry).
- Remind yourself that you do not have to be angry to handle the problem. Your anger will actually make the situation harder to handle.
- Decide how to deal with the situation
- Imagine yourself using the technique you chose in a calm manner.
- Return to your student and use the technique.
- Congratulate yourself for staying calm!

♦ When you are angry with your students' behaviors, these are some helpful things to remember
- You do not need to show anger to let your students know that you disapprove of their behavior; showing moderate disappointment is enough
- Your students' misbehaviors do not reflect on your abilities as a teacher
- Your students' misbehaviors do not mean that they do not respect you

♦ Teachers can also use their modeling role to teach their students lots of good behaviors
- Every time you use smiles, praises, or any positive reinforcement with your students, you are teaching them to use the same behaviors with you and with others

When you deal with conflict in a calm and rational manner, you teach your students to talk through conflict calmly and rationally. This helps your students get along with people in your classroom and other places outside of school.

Questions

We use Questions in many different ways with children. Some Questions helpful, and others are less effective. Our goal is to help teachers distinguish between good Questions and unnecessary or unhelpful Questions.

What are Questions?

A Question asks for an answer from the child. Questions take over the lead in the interaction. There are many different kinds of questions.

♦ <u>Questions that ask for information</u> -- who, what, where, when, how?

Examples:	"What color is this?"	"Where are you supposed to be now?"	"How many sticks am I holding up?"

♦ <u>Unintentional Questions</u> -- voice goes up at the end of the sentence; question tags.
These can be some of the hardest questions for teachers to notice.

Examples:	Child: "I cut the paper." Teacher: "You cut it?"	Child: "I can eat it all." Teacher: "You can?"	Child: "What time is it?" Teacher: "What time <u>is</u> it?"

♦ Questions that are really <u>hidden commands.</u>

Examples:	"Don't you think it's time to clean up now?"	"Are you ready to be nice to Sarah now?"

Valuable Questions:

Some questions are appropriate and necessary in the classroom.

♦ <u>Questions that help teach a concept or check for understanding.</u>

Examples:	"What sound does 'r' make?"	"What do you think will happen next?" (e.g., during a story)	"Can you find what's missing in the picture?"

♦ <u>Questions to obtain information.</u>

Examples:	"Do you need to go to the bathroom?"	"Who would like to go first on the slide today?"	"Would you like orange juice or milk for snack?"

Drawbacks of some types of Questions:

♦ Some Questions suggest <u>disapproval.</u>

Examples:	"Are you sure you want to use the purple one?"	"Where are you supposed to be now?"	"How many times do I have to tell you to wait?"

♦ Some Questions suggest that you are <u>not really listening</u> to the child.

Examples:	"Which one did you tell me you wanted?"	"Did you say you were ready to work?"	Child: "I found the dog:" Teacher: "You found it?"

♦ Questions that repeat the same information.

Examples:	"Can you do it now? Right now?"	"What are you making? Are you making a fish? What is that?"	Child: "I'm finished." Teacher: "You're finished? Already?"

What teachers can say instead of Questions:

Examples of Questions	Alternative statements
Were you being mean to Bobbie?	Please use kind words.
Does the red one go there?	The blue one might fit there.
Are you going to build a long fence?	You're putting the fence together.
Who has finished their snack?	I see Sally and Joshua have finished their snack.
Can you draw a cloud for me?	I see you are drawing.
Did you hear me say time is almost up?	It's time to clean up
Child: I'm done. Teacher: You're done?	Teacher: You are done.

The Bottom Line: Use Questions Thoughtfully

When asking for needed information, Questions are fine. Otherwise, consider how you can use other forms of attention such as the PRIDE skills to accomplish your goals.

Practice on Reducing Questions

How could you turn the following <u>Questions</u> into statements?

1. Child: I can make a dinosaur.
   Teacher: You can make a dinosaur?

   _____

2. Child: My pencil is broken.
   Teacher: How did it get broken?

   _____

3. Child: This looks like a coo-coo-bird.
   Teacher: It looks like what?

   _____

4. Child: (driving car roughly into other child's activity) Here I come -- look out!
   Teacher: Are you supposed to be doing that?

   _____

5. Child: I like ice cream.
   Teacher: You like ice cream?

   _____

Appendix B
TDI Training Materials

Teacher Directed Interaction Overview

TDI RULES	REASON	EXAMPLES

Praise the Opposite
 	
When a child is behaving inappropriately:
  a. Ignore the inappropriate behavior (unless it is dangerous or destructive)
  b. Provide labeled praise to another child who is engaging in a desired alternative behavior
  c. Praise the target child as soon as the inappropriate behavior stops
	*Helps target child notice the difference between your response to desired and undesired behavior
	
	*Teaches target child that good behavior leads to teacher attention
	
	*Allows the child to feel good about behaving appropriately and raises self-esteem
	
	*Provides attention to non-target children for good behavior
		Problem behavior:
		-Playing roughly with others
		Opposite behavior:
		-Playing gently with others
		
		Labeled Praise:
		-"Nona, I like the way you are being gentle with the other children."
		
		Problem behavior:
		-Defiance
		Opposite behavior:
		-Listening/minding
		
		Labeled Praise:
		-"Thank you for doing what I said right away!"

Effective Commands are:
 	
  a. <u>Direct</u> rather than indirect (statements rather than suggestions)
  b. Tell child what <u>to do</u> rather than what not to do
  c. <u>Realistic</u> and age-appropriate
  d. Given <u>one at a time</u>
  e. <u>Specific</u> rather than vague
  f. <u>Polite</u> and respectful
  g. <u>Reasons explained before</u> command or <u>after</u> compliance
	*Makes it clear than compliance is not a choice
	
	*Teaches what is expected
	
	*Gives the child a chance to respond appropriately rather than receive criticism or correction
	
	*Decreases likelihood that child with dawdle or delay compliance
		"Please put your shoes on."
		
		"It's time to clean up, so put all the blocks in the container."
		
		"Tommy, please come sit next to me."
		
		"Keep your hands to yourself."
		
		"It's time to go. Push in your chair please."
		
		"Circle the word that begins with T."

Follow Through on Commands
 	
  a. Provide labeled praise for compliance
  b. Repeat the command one time if needed
	*Shows you mean it
	
	*Creates consistent expectations
		"Thank you for putting your shoes on!"
		
		"Please stand quietly in line." (5 seconds)
		"Please stand quietly in line."

c. Provide gentle physical guidance as a prompt	*Reinforces good/compliant behavior	
d. Provide logical consequences (e.g. you can go to snack after you put the blocks away)	*Increases the likelihood of compliance with future commands	"Put the crayons in the box." (5 seconds) (Point to crayon box) "As soon as you put on your coat, we can go play outside."
Use **<u>Sit and Watch</u>** for not listening and for hurting others a. Sit and Watch involves having a child sit in a chair on the edge of the activity for a brief time (e.g., 1 minute) for breaking a classroom rule. b. The child must stay in the chair until the time is up, and then is invited back to the activity. c. The child receives no attention while in Sit and Watch. d. When the child returns to the activity, the teacher praises the first instance of appropriate behavior. e. Specific rules for using Sit and Watch will be developed by each classroom team.	*Temporarily removes the child who is not cooperating or is a danger to others *Target child and classmates learn that serious problem behaviors are not tolerated *Allows child (and teacher) an opportunity to calm down *Decreases likelihood of future misbehavior *Provides a consistent way of handling serious misbehavior in the classroom *Decreases the need for negative attention or other punitive consequences to children *Empowers teachers to handle child behavior issues within the classroom	<u>Problem Behavior:</u> --Hitting/biting <u>Using "Sit and Watch":</u> -"Serena, you did not listen. Sit and watch how the other children listen right away." -Move target child to a chair a few feet from the activity -Begin timing 1 minute -Provide no attention to target child, and positive attention to classmates in the area <u>Returning child to chair if needed:</u> -If child gets out of the chair before time is up, return child to chair -"Sit and Watch is not over. Stay here until I tell you that you may get out." -Begin 1-minute interval over <u>After "Sit and Watch":</u> -"You've been sitting quietly. You can come back to the activity now." -When target child returns and begins playing appropriately, provide labeled praise: "I like the way you are cooperating."

Praising the Opposite

What is Praising the Opposite?

Praising the Opposite is "strategic" use of labeled praise to strengthen desired behavior while ignoring undesired behavior. It includes:

♦ Catching a child being good as soon as inappropriate behavior stops.

♦ Attending to a different child who is doing what you like.

♦ Focusing on the desired part of a child's behavior that merits your positive attention.

Praising the Opposite is an advanced skill, because it involves thinking about the timing of your praise and the message you wish to send by your attention. It is very effective for managing child behavior.

Examples:

Praise the target child for an opposite behavior as soon as the inappropriate behavior stops.

Child is pounding a crayon on the table and then begins to draw.	*(Teacher ignores pounding until it stops.)* *"I like the way you are drawing with the crayon.*
Child is talking to a peer during circle time and then begins to listen to the teacher.	*(Teacher ignores talking and continues to run circle time until child stops talking.)* *"Thank you for being quiet and listening."*

Provide labeled praise to another child or children who are behaving the way you want.

A child is being messy during an art activity and is dumping the art supplies on the floor.	*(Teacher ignores child who is being messy and praises others who are using the art supplies appropriately.)* *"Johnny and Dawn, you are doing a wonderful job keeping your art supplies on the table.*

Focus on the <u>desired part</u> of a child's behavior rather than the part you don't like.

Child knocks over her cup, then gets a paper towel to clean it up.	*"I like the way you are cleaning up your spilled juice, Jasmine.*

Examples of Words or Phrases for Praising the Opposite:

Opposition/Anger: doing what I asked, following directions, thinking things over, telling about your feelings, staying calm

Destroys/Careless: being careful, playing safely, taking your time, taking good care of things

Provokes/Fights: sharing, taking turns, keeping hands to self, using words, cooperating, being a friend, saying nice things

Seeking attention/interrupting: waiting, being patient, letting others talk, using words to tell what you want, using polite manners, keeping hands to self

Distracted/ short attention span: sitting calmly, listening, looking at me, paying attention, concentrating, focusing, finishing, quiet hands and feet, doing one thing at a time

Practice on Praising the Opposite
How could you respond to the following child behaviors by Praising the Opposite?

1. A child grabs a toy from another child.

_____

2. Two children are making burping noises at snack.

_____

3. A child throws supplies into the container during clean up.

_____

4. A child runs in the hallway on the way to recess.

_____

5. A child is working on an assignment and singing too loudly.

_____

Giving Effective Commands

When children know exactly what the teacher wants them to do, it is more likely they will comply. Below are specific ways to make your commands more effective.

<u>Eight Components of Effective Commands</u>

Component	Examples	Rather Than
<u>Direct</u> rather than indirect	Please sit down. You need to put the crayons away.	Let's sit down. (suggestion) It's time to sit down. I'd like you to sit down. How about putting the crayons away? (question) Can you put the crayons away?
Stated <u>positively</u> (i.e., what <u>to do</u>)	Please walk slowly. Put your hands in your lap. Tell the teacher about it.	Stop running .(what <u>not</u> to do) Don't poke Kareem. Quit tattling.
One at a time	Put your book back on the shelf. Sit down on your mats.	Put your book back on the shelf and then go sit down and cross your legs. (multiple commands)
<u>Specific</u> rather than vague	Use your quiet voice inside. Turn on the water slowly. Please look at me.	Settle down. Be careful. Listen up everyone.
Age appropriate	Please put the blue car in the box.	Put the azure BMW 360 in the receptacle.
Given politely and respectfully	Use a calm and normal tone of voice. "Please" can be used at the beginning of a sentence as well.	Jeremiah, get over here!!! Shut up!!
Explained only before they are given or after they are obeyed	It's time to go outside. Line up by the door please. or Line up by the door now. (After children line up:) Thank you for being so quick; now we can go outside.	Line up by the door. It's time to go outside. (the command can get lost in the explanation)
Used only when necessary	Use commands when it is important, and when you are able to follow through.	

Practice on Effective Commands

Indicate whether the following are effective Commands. If they are Ineffective, how could you change them to make them Effective Commands?

1. "Let's clean up our art activity."

_____

2. "Sally, put your coat on. It's cold outside and you might get sick."

_____

3. "Stop playing so rough with that!"

_____

4. "Would you please put your shoes on?"

_____

5. "Eat your snack."

_____

6. "Chill out now!"

_____

7. "Hand me the scissors, will you?"
_____

8. "Watch it."

_____

9. "Keep the paint on the paper."

_____

10. "Be a good boy."

_____

Following Through on Commands

What occurs after a command is just as important as the command itself. By following through with commands in a consistent manner, the child learns what to expect and receives help in learning how to comply. Below are four options for how to follow through after a command. Choose whichever one is most appropriate or convenient for the child and situation.

Options	Rationale	Example
Labeled Praise for Compliance immediately	• Allows the child to establish a connection between his/her actions and the praise • Increases the likelihood of compliance with future commands	Thank you for listening! I like it that you did what I asked so quickly.
Repeat the command <u>one</u> time if needed (after 5 seconds)	• Ensures that the child has heard the command • Shows the child you mean it • Especially useful when you are not sure if the child understood or heard you	Please put your plate in the garbage. (after 5 seconds:) Please put your plate in the garbage.
Provide gentle physical guidance as a prompt (after 5 seconds)	• Provides the child a cue to begin the requested behavior • Helps direct the child to what is expected • Particularly useful for children with attentional difficulties or those still learning how to comply	Put the crayons in the box. (after 5 seconds, hand the child the crayon box) Get your boots from your cubbie. (after 5 seconds, point to the child's cubbie)
Provide logical consequences	• Uses the opportunity to engage in preferred behaviors to reinforce completion of non-preferred behaviors • Increases the likelihood of completion with future commands	Please put the blocks in the bucket. (after 5 seconds:) You can have your snack after you put the blocks in the bucket.

Practice on Following Through on Commands

Write down an appropriate way to follow through on these commands.

1. "Hold hands with your buddy please." (Child keeps hands in his pocket).

_____

2. "Please keep the water in the water table." (Child plays more softly with the toys so that water stays inside the table).

_____

3. "Sit on the floor on your bottom." (Most children sit on the floor on their bottoms, but some continue moving around the circle.)

_____

4. "You took the glue away from Glenda before she was done. Please give the glue back to Glenda." (The child says, "But I'm using it.")

_____

5. "Play gently with your friends." (Child stops bumping into her peers and says "excuse me".)

_____

6. "It's time to go to lunch. Please line up." (Some children start to line up, but others remain in the free-play area.)

_____

Teacher-Child Interaction Training—JMU/DePaul
Sit and Watch Planning Sheet

Classroom _____   **Date**_____

Teachers Initials _____

1. **Behaviors** for which Sit & Watch will be used (e.g. not listening and hurting others)

   Provide a label for the behavior and a description:

   a.

   b.

2. **Brief statement at beginning** of Sit & Watch of what the child did:

   Example: "Because you <u>hit Billy</u>, you have to sit and watch how the other children play nicely." OR "We don't <u>hit others</u>. You need to go to Sit & Watch."

3. **Location** for child to be seated for Sit & Watch:
   Example: Approximately 5 feet outside the activity area, facing the activity

4. **Time length** for Sit & Watch and requirement to end:
   Example: One minute in chair, with five seconds of quiet at end.

Sit and Watch Planning Sheet--continued

5. Procedure for handling **child who gets out of chair or misbehaves**
    during Sit & Watch:

    Example:
    a. Return child to the chair ("Stay here until I tell you Sit & Watch is over") and
        restart time.
    b. If child gets up more than two times, move chair to a quiet corner of room.
    c. Extend time by one or two minutes if needed.
    d. Then have child return to Sit & Watch chair and sit for one minute.

6. **Brief statement at end** of Sit & Watch:
    Example: "You may come back to the activity now."

7. **Teacher attention** when child returns to activity and begins to behave
    appropriately.
    Example: Labeled praise of child's appropriate behavior

Appendix C
Parent Consent Forms

November 2013

Dear Parent,

James Madison University has invited your child's classroom teacher and instructional assistants at Stone Spring Elementary to participate in a specialized training series during the 2013-2014 school year to foster and maintain an enriching classroom atmosphere.

The main **goals of this training of teachers and instructional assistants are to 1) Build positive relationships between teachers and students and 2) Broaden the teachers' knowledge of effective behavior management skills.**
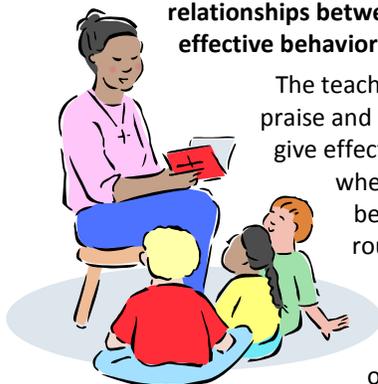
The teachers learn skills in providing positive, responsive attention to children, to praise and describe children's appropriate behavior, reflect children's verbalizations, give effective commands and follow-through, briefly remove children from an activity when they are disruptive or aggressive, and attend positively to appropriate behavior when children return to the activity. Information is collected routinely on about these behaviors to evaluate the effectiveness of intervention. In addition to small group workshops for teachers and instructional assistants, the program will involve in-class consultation and classroom observation by JMU staff. You may see some JMU staff observing or consulting with the teachers in your child's classroom during this time. The program's purpose is to help the entire classroom operate as smoothly as possible. However, teachers may focus on the behavior challenges of some of the children rather than others even while the training focus is on general strategies for maintaining a productive classroom environment.

As part of the training program, the teachers and instructional assistants will be asked to rate each of their student's behavior across the training. We will be using the overall ratings and observations of children's behavior as one means of evaluating the training program. No children's names will be on any ratings or observations, so confidentiality is maintained completely. All information will always be coded only with a random number without any identifying information. Carefully de-identified Information about the effectiveness of the program will be shared with personnel from the school district and may also be presented or published in professional journals. No information that could identify individuals will be included in any reports or discussions related to the project. These reports may help other school programs offer effective classroom improvements similar to those examined in this program.

If you have any questions or would prefer that we do not use information collected about your child to evaluate how the program is going, please feel free to contact your teacher to let her know. You may also contact Dr. Trevor Stokes at JMU (540-568-8829; stokestf@jmu.edu). This training is a collaborative assessment between Stone Spring Elementary and James Madison University and is sponsored by JMU's Baird Center.

Thank you for your support. If you do not want your child to participate in this study to enhance positive relationships between teachers and children, please indicate below and return this form to your child's teacher.

_____ I do **NOT** want my child to be part of this program.

_____   _____
Signature of parent/guardian   Date

Estimado padre: Noviembre 2013

James Madison University (JMU) ha invitado al maestro de su hijo y a los ayudantes de instrucción en Stone Spring Elementary a participar en una serie de cursos especializados durante de la primavera y el otoño semestre, (2013-2014) para fomentar y mantener un clima de aula enriquecedora.

Los objetivos de estos cursillos de formación de maestros y ayudantes de instrucción son: 1) Establecer relaciones positivas entre maestros y estudiantes y 2) Ampliar los conocimientos de los profesores de habilidades efectivas de manejo de la conducta.

Los maestros aprenderán nuevas maneras de dar atención positiva a los niños, de describir y alabar la conducta apropiada de los niños, de responder a las verbalizaciones de los niños, de dar órdenes eficazmente, de alejar los niños ruidosos o agresivos de una actividad y de responder positivamente cuando estos niños regresan a la actividad. Se recogerán información habitualmente para evaluar la eficacia de la intervención. Además de los talleres pequeño grupo de maestros y ayudantes de instrucción, el programa incluirá la consulta en clase y observación en la aula por parte del personal JMU. Se puede ver el personal JMU observar o consultar con los profesores en la aula de su hijo durante este tiempo. En lugar de centrarse en los niños individuales, el propósito del programa es ayudar a toda la clase operar de la mejor manera posible. Puede ser que los maestros se concentren en el comportamiento de algunos niños aunque el propósito del cursillo es en las estrategias generales para el mantenimiento de un ambiente productivo en la aula.

Como parte del cursillo de formación, los maestros y ayudantes de maestros se les pedirá que evaluan los comportamientos de sus estudiantes a través de la formación. Utilizaremos la puntuación global y observaciones de comportamiento de los niños como un medio de evaluar el programa de formación. Los nombres de los niños no estarán en ningunas de las clasificaciones ni las observaciones, por lo que la confidencialidad se mantiene por completo. Toda la información será codificada con un número al azar sin ningún tipo de información de identificación. La información sobre la eficacia del programa será compartido con gente del distrito escolar y también puede ser presentados o publicados en revistas profesionales. No se incluirá ninguna información que podría identificar a individuos en ningunos informes ni discusiones relacionados con el proyecto. Estos informes pueden ayudar a otros programas. Estos informes pueden ayudar a otras programas escolares en el desarrollo de las estrategias generales para el mantenimiento de un ambiente productivo en la aula.

Si tiene cualquier pregunta o prefiere que no utilizamos la información recogida acerca de su hijo para evaluar cómo va el programa, por favor no dude en contactar con su maestro para hacerle saber. También puede comunicarse con el Dr. Trevor Stokes en JMU (540-568-8829; stokestf@jmu.edu). Esta formación es una colaboración entre Stone Spring Elementary School y James Madison University y es patrocinada por el Baird Center de JMU.

Gracias por su apoyo. Si no quieres que tu hijo participe en esta investigación para mejorar las relaciones entre maestros y niños, favor de indicar abajo y devuelva este formulario al maestro de su hijo

_____ No quiero que mi hijo sea parte de este programa.

_____   _____
   Firma del padre o guardián legal   Fecha

Appendix D
CDI Trainer's Guide

Overview of TCIT: Child Directed Interaction (CDI) Expanded Outline
3- Hour Session

Materials Needed
- Attendance sheet (have everyone sign in upon arrival)
- Pens
- TCIT binders with CDI handouts
- CDI Teacher Coding Sheets
- Toys
- Clipboards with stopwatches
- Ear buds and transmitters for coaching

Goals of this Session

- Establish rapport with the teachers
- Educate teachers about the TCIT program
- Promote discussion regarding classroom challenges
- Overview of purpose of CDI skills
- Model, role-play, and code use of praise and reduction of negative talk
- Introduce coaching

Note: This session is both to share information and to establish a working relationship with the teachers. Be alert to signs of teachers' concern, and use facilitative listening skills to respond to the teachers' concerns.

Session Outline

❖ **Welcome and introductions**

- Thank teachers for allowing us to observe in their classrooms
  - Note how helpful observations have been & comment briefly on positive aspects observed
  - Emphasize that teachers are experts of their classrooms -- we will be there to help with skills, but we recognize the tensions of having us in the classroom
- Briefly list agenda items
  - Welcome and introductions
  - Review and discussion of pre-training exercise
  - Development and goals of TCIT
  - CDI overview
  - CDI handouts and practice exercises
  - CDI skills practice -- code and role-play

- Plan for coaching CDI in the classroom
- Assign homework exercises
- Have teachers & trainers describe a bit about themselves
  - Names and years of experience
  - Have teachers think of their favorite teacher and what made that person special (encourage focus on positive teacher behaviors)
- Encourage teachers to ask questions & make suggestions to enhance usefulness of training
- Distribute TCIT Binders – review tabs for different sections
  - General information
  - CDI section -- handouts for first session
  - TDI section -- will describe in a minute
  - Homework -- weekly activity in classroom
  - Notes -- blank pages

❖ **Overview: Development and Goals of TCIT**

- Brief snapshot of PCIT, on which TCIT is based
  - Developed over 30 years ago by Dr. Sheila Eyberg
  - Focus on children aged 2-7 with disruptive behavior problems
  - Goals: increase positive relationships & parents' use of effective behavior management techniques
  - Two phases – CDI & PDI – parents achieve mastery of each one before progressing
  - Unique feature of PCIT is direct coaching of parents during play with their children to help parents learn the skills
  - Extensive research showing its effectiveness with parents & children
- TCIT
  - Developed by Dr. Karen Budd and colleagues in past few years, based on teachers' interest in learning the skills parents were being taught in PCIT
  - Focuses on all children in classroom rather than only those with behavior problems
  - Goals: prevention of problems and promotion of positive classroom environment, by increasing positive relationships & use of effective behavior management techniques – methods adapted to classroom setting
  - Small group training with teachers (& coaching in classroom)
  - Two phases – same as for PCIT, but time-limited
    - CDI -- focus of today's session
    - TDI section of binder – for introducing Teacher-Directed Interaction techniques in later session
  - As with PCIT, coaching is an integral component
    - Note that we will schedule 20-minute coaching sessions with teachers to work 1:1 in the classroom beginning on Monday
  - Support and training objectives rather than evaluation and critique
    - Emphasize positive and constructive feedback/cooperation between teachers

- • Focus on working as a team and providing a consistent environment (requires that everyone be on the same page)
  - • TCIT has been used by teachers in Chicago, Minnesota, and Virginia -- this is an opportunity to expand TCIT in Harrisonburg -- thanks!

❖ **Review pre-training exercise**

- • Have teachers describe disruptive behaviors or other difficult issues – different "pressure points" for each of us
- • Ask about techniques teachers currently use to manage difficult behavior
  - • What works? (and ideas why)
  - • What doesn't work? (and ideas why)
  - • Acknowledge constructive techniques already in place
  - • Note the connection between feeling confident in one's teaching style and ability to relate to children even under stressful conditions, whereas lack of confidence creates additional stress

❖ **CDI overview (PG 1-3 of binder)**

- • Introduce rationale, basic goals, & when most appropriate to use in classroom
  - • Rationale – CDI designed to build positive relationships & strengthen children's prosocial behaviors, so that discipline techniques will be effective
  - • Basic rule of CDI is to <u>follow the child's lead</u> by encouraging & attending to the child's appropriate behavior
    - • Same skills play therapists use to help children feel calm & safe
    - • Especially helpful for children with limited attention span or easily frustrated
    - • Improves children's self-esteem & social skills
  - • CDI skills can be used can be used anytime, but they are easiest to focus on in free time or unstructured play
- • Explain that there are specific positive skills we will work on building up in CDI (DO skills) in order to enhance the relationship between teacher and child, such as praise (do not give examples of other PRIDE skills).
- • There are also habits we often develop when managing children's behavior that can have negative effects on teacher-child relationships, such as telling children to stop doing an annoying behavior. Drawing attention to children's negative behavior tends to have the effect of increasing the negative behavior we would actually like to see less of (avoid naming other DON'T behaviors). We will work to reduce these types of habits (DON'T behaviors).
- • Explain that we will also cover what to do if a child misbehaves during CDI (ignore or stop the play)
- • We will be going through each of the types of behaviors we'd like to increase and decrease in more detail as we move through the session.

- We call the behaviors we want to increase during CDI the PRIDE skills.

❖ **Demonstration of CDI skills**
  - Have trainers or TCIT-experienced teacher demonstrate using contingent Labeled Praise, Behavioral Descriptions, and selective ignoring with one child or in role-play
  - Have teachers comment on the interaction in general and discuss positive nature associated with use of CDI skills

❖ **Introduce specifics of Praise, Reflections & Behavior Descriptions**

  - Review and discuss 1-page description of Praise in CDI section of binder (pg. 4)
  - Emphasize the power of praise, especially Labeled Praise, in strengthening child behavior
  - Review the description on How to Create Great Labeled Praises (pg. 5)
  - Have teachers complete practice examples and discuss (pg. 6)
  - Review and discuss 1-page description of Reflections (pg. 7)
  - Emphasize function of Reflections in modeling and improving child speech, and to let the child know you are listening to them
  - Have teachers complete practice examples & discuss (pg. 8)
  - Review and discuss 1-page description of Descriptions (pg. 9)
  - Emphasize function of teacher's attention in Descriptions as a positive reinforcer for child's current behavior (note difference between describing the objects and the child's behavior, e.g., "the car is going fast" versus "you are making the car go fast")
  - Notice the difference between Labeled Praise and Descriptions – both serve as ways to focus the child on current behavior and encourage it to continue
  - Have teachers complete practice examples & discuss (pg. 10)
  - Briefly model skills – have teachers note occurrences of Labeled Praises, Reflections and Descriptions

❖ **Introduce specifics of planned ignoring**
  - Discuss ignoring, referring to points on CDI skills overview sheet (refer to pg. 3)
  - Emphasize teaching function of differential attention to clarify desired from undesired behavior. Reinforces positive behavior, thus increasing the likelihood that it will reoccur.
  - Model the difference between "calm" ignoring and emotionally charged actions (negative looks, gestures) that telegraph the teacher's disapproval & therefore most likely serve as reinforcers rather than effective ignoring
  - Note usefulness of turning attention to another child as another form of ignoring
  - Review what to do when behavior can't be ignored – state classroom rule or stop the play

- State importance of continuing to ignore the behavior, as the negative behavior may get worse before it gets better. We do not want the child to learn that louder or extreme behaviors get them what they want.
- Briefly model skills – have teachers note occurrences of ignoring

❖ **Live demonstration and have teachers try to code praises, descriptions, and ignoring as they occur**

- Pass out and go over teacher coding sheets
- Have teachers tally behaviors while watching a role-play, & discuss

❖ **Teachers and trainers practice using praise, descriptions, and ignoring in role-plays**

- Have one teacher play the child, another teacher or a trainer play the teacher, and the others observe and code praise on CDI coding forms (can omit coding and have others observe and informally note praises, descriptions, and instances of ignoring)
- Practice for 3 minutes per dyad, & have teachers comment on use of praises, reflections descriptions, and ignoring observed. Discuss the experience of trying out the skills.
- Provide positive feedback and model as needed -- coach during role-plays to introduce the concept

-- BREAK --

❖ **Introduce specifics of reducing Negative Talk**

- Have teachers recall a classroom situation when they were really angry & how they dealt with it (comment on internal & external signs of anger and how it impacts our ability to handle challenging situations)
- Discuss 1-page description of Negative Talk (pg. 11)
- Note that critical statements can damage children's self-esteem, create an unpleasant interaction, and unwittingly increase the behavior they follow
- Explain that Negative Talk in the form of sarcasm or sassy talk is confusing for young children, as they rely on tone rather than content (and model behavior we don't want children to emulate)
- Corrections (e.g., "no," or "that's not quite right") sometimes are needed but often can be provided in ways that do not directly point out what was wrong (provide positive examples from our observations of the classroom)
- Emphasize that negative statements provide information on what children are doing wrong, which occasionally is needed, but often there are other ways to communicate this information
- Have teachers complete practice examples & discuss (pg. 12)
- Briefly model skills – have teachers note occurrences of praise and ignoring in place of where Negative Talk might occur

- Have teachers role-play and code each other using skills as needed and time allows

❖ **If time allows, refer to "Teachers are Models for their Students" and What To Do When Angry" sheets (pg. 13-14)**

❖ **Introduce specifics of reducing unnecessary questions**
  o Discuss 2-page handout on Questions (pg. 15-16)
  o Have teachers complete practice examples -- encourage teachers to think of ways they could change Questions into Descriptions, Praise, or a neutral statement (pg. 17)
  o Briefly model skills – have teachers note occurrences of PRIDE skills and the reduction of Questions
  o Have teachers role-play and code each other using skills as needed and time allows

❖ **Discuss plan for 20-min individual coaching beginning next week**

- Note that the coaching session begins with having the trainer observe a teacher individually for 5 minutes, then coach for 10 minutes & give feedback for 2-3 minutes
- Explain that coaching involves commenting "in the moment" to teacher on her use of CDI skills while teacher interacts with children
- Show teachers the coaching equipment and display its use
- Note that some teachers have said it can be difficult at first to focus on all the skills while we are coaching them live. However, teachers have reported that it is a great learning experience. We invite teacher feedback about their reactions and suggestions on the coaching
- Discuss best activities and time to practice Praise, Descriptions, and ignoring skills in playtime
    - Have teachers generate ideas of unstructured play activities (e.g., drawing, blocks, water table, & other "quiet" toys without rules)
    - Have teachers list typical times for free play activities in their classrooms (will serve as ideas for practice and coaching times)
- Arrange when coaching sessions will occur (and the order across teachers, if appropriate)

❖ **Discuss homework activity for teachers to complete during next week -- one 5-min practice session each day using their praise and ignoring skills**

- For the first week, the activity involves having teachers practice with one child (e.g., in a free play or table activity)
- Review good times for practicing Praise and Description skills, ignoring, and reducing Negative Talk
- Have teachers offer types of activities when they could practice (may be similar to coaching times).

- Refer to homework activity forms in binders for teachers to fill out. Answer questions regarding completion of the form.
- Review purpose of homework – as practice to be expanded to other classroom activities
- Note that the homework activity changes slightly across succeeding weeks, so teachers practice use of skills with gradually more children and in varied types of classroom activities
- Arrange when teachers will turn in homework for the week (at weekly meetings?)

❖ **Closing**

- Note that we have provided additional handouts related to today's skills in the binder
    - They are general handouts on teachers as models for children and on suggestions for handling anger -- teachers can read these on their own
- Arrange a weekly time (e.g., 30 mins) to meet with the teachers as a group over the next several weeks to review the handouts, discuss how coaching is going, and problem-solve any issues
- Invite teachers' feedback and suggestions, so we can make the training as helpful as possible

Appendix E
TDI Trainer's Guide

TDI Session
Expanded Outline
3-Hour Session

Materials Needed

- Materials for binders
  - TDI handouts (Overview, Praising the Opposite, Giving Effective Commands, Following Through after Commands, Sit and Watch Planning Sheet - 2 copies)
  - TDI practice sheets (Praising the Opposite, Giving Effective Commands, Following Through after Commands)
  - TDI Homework forms (Sit & Watch Introduction, Effective Commands and Follow Through - 4 copies)
  - Sit & Watch and Classroom Removal Tracking Log - 4 copies
  - Teacher Evaluation Forms (End of CDI phase & TDI training)
  - Toys and Mr. Bear
  - Pens

Goals of this Session

- Review CDI and wrap up this phase
- Overview of TDI and teach basic skills
- Review current behavior management procedures being used by teachers
- Discuss Praising the Opposite
- Review Sit & Watch in detail
- Assign initial planning of Sit and Watch as a homework activity
- Prepare for coaching in classroom

Note: This session is both to reconnect, share information, and strengthen our working relationship with the teachers. Be alert to signs of teachers' concern, and use facilitative listening skills to respond to the teachers' concerns.

Session Outline

❖ **Welcome back & agenda**

- Welcome teachers back to TCIT sessions following a series of weeks in which only coaching occurred
- Taking stock – reflect on changes in classrooms since last session (note that we will refer to items on the pre-training exercise throughout today's session)
  - Have teachers each report on one or more changes seen in children, classroom environment, center, or themselves – not

necessarily related to TCIT (observe whether they are positive or negative)
- o Invite teachers to suggest possible reasons for changes (e.g., adjustment to routine and expectations, maturity, teachers' use of PRIDE skills, new children in classroom)
- Briefly list today's agenda items (CDI wrap-up, overview of TDI and basic skills, discussion of current behavior management procedures, introduce and discuss Praising the Opposite, discuss effective commands and following through, discuss Sit & Watch procedures, assign homework, and prepare for coaching in classroom)

❖ **Complete Training Evaluation Forms for CDI Phase**

- Distribute evaluation forms for CDI phase. Note that we will discuss their coaching impressions after they have provided anonymous comments.
- Collect forms and place in a large manila envelope

❖ **CDI Wrap-up**

- Discuss teachers' thoughts about their competence and comfort with PRIDE skills (ensure that attention is given to each skill and behavior to be avoided/reduced)
  - o Which skills are becoming natural and which remain challenging for individual teachers?
  - o What are the positive (and negative) effects of using PRIDE skills? (check on whether high rates of PRIDE skills create challenges for some teachers & problem-solve issues)
  - o Note that we intentionally encouraged and coached higher frequencies of PRIDE skills than would be natural in everyday activities for training purposes
  - o Take-home messages about CDI (try to draw these out with indirect prompts rather than stating them – for example, "Looking back, what is the 'take home message' of CDI skills for you?")
    - ▪ PRIDE skills are powerful – the most effective way to strengthen children's desired behavior ("most bang for the buck") – for example, if a teacher attends 5 times across 2 minutes, the most valuable form of attention would be PRIDE statements
    - ▪ Goal: 5:1 ratio of positive to negative attention
    - ▪ Different forms of teacher attention have noticeably different effects on children's behavior – goal of CDI training has been to make teachers aware of the differences & encourage use of behaviors that strengthen the teacher-child relationship
    - ▪ Even brief positive attention when teachers are busy (e.g., preparing for next activity, putting things away) helps to promote positive child behavior
  - o Note positive changes we (trainers) have observed during coaching sessions (e.g., teachers more attentive, more Labeled

Praise as opposed to Unlabeled Praise, and more Descriptions & Reflections instead of Questions, less Negative Talk)
   o Encourage teachers to keep up their use of PRIDE skills!!
- Invite teachers' reactions to in-class coaching (brief if this has been covered in weekly check-ins)
   o Has it been helpful, and if so how?
   o What suggestions do teachers have to make coaching more helpful?
- Invite and address any remaining CDI questions, and remind teachers that PRIDE skills serve as the foundation for TDI skills

❖ **Review and discuss "Looking Ahead" questions from the Pre-training Exercise**

- What kinds of behaviors are either annoying or disruptive and, although difficult at times to ignore, <u>can</u> be ignored?
   o What techniques are being used during these times?
- What kinds of behaviors are so disruptive they <u>cannot</u> be ignored in the classroom?
- Of the disruptive behaviors that cannot be ignored, would any warrant a disciplinary procedure? If yes, what procedures are being used? How well do they work?
   o Note underlying principles that are similar to those in TDI skills, and have teachers identify components of effective techniques – teach what is expected, consistency, remove or minimize attention for undesired behavior, reinforce appropriate behavior, etc
   o Mention common practice of having children work out disagreements on their own, & ask how it is implemented and how well it works
   o Also ask about techniques teachers have learned are not effective or they would prefer not to use (e.g., yelling, criticizing, shaming, long or inconsistent timeouts)
- Which techniques do the teachers currently use? How well do they work?
- What challenging behaviors do the children exhibit that need to be addressed more effectively than they currently are?

❖ **TDI Overview**

- Introduce rationale, basic goals, & when most appropriate to use in classroom
   o Rationale – TDI (Teacher Directed Interaction) is designed to build on the positive relationship skills of CDI by incorporating behavior management techniques for disruptive, aggressive, or noncompliant child behavior
   o Basic goals -- disciplinary techniques of TDI emphasize <u>consistency</u>, <u>predictability</u>, and <u>follow through</u> with classroom rules, and <u>structuring</u> through effective instructions to teach the child what is expected

- o TDI skills can be used at any time, but they are most useful to focus on in group activities, instructional times, or transitions (e.g., clean up, lining up to go outside) when structure is needed, or when serious misbehavior occurs
- Specific rules (refer to TDI overview sheet for examples) – note that we will provide a general overview of these skills and then discuss and practice each one in greater detail
  - o Praising the Opposite
  - o Giving Effective Commands
  - o Following Through on Commands
  - o Sit and Watch
    - Explain how different from timeout – shorter time, does not isolate child from others, but removes opportunity for participation and attention
    - Note that this procedure will be planned and developed by the teachers in collaboration with us in the next session before introducing to children

❖ **Introduce specifics of Praising the Opposite**

- Review handout – go over rationale & examples; note this is mainly the use of praise as it applies to handling behavioral challenges
- Discuss this skill as an extension of Labeled Praise that is especially useful when more than one child is present and at least one child is behaving appropriately
- Briefly discuss items on practice exercise and have teachers fill in their answers

❖ **Introduce specifics of Giving Effective Commands (refer to handout)**

- Review and discuss handout on Giving Effective Commands
- Preface with rationale that Effective Commands are necessary for successful use of disciplinary procedures, to be sure children know what is expected
- Have teachers offer an example of a command that does and one that does not meet the criteria for each rule
- Have teachers complete practice handout on Giving Effective Commands and discuss answers
- Ask teachers to comment on why giving Effective Commands are key to successful discipline (e.g., let's child know exactly what you expect and that you mean business, provides a predictable cue of what will follow—as long as teacher indeed follows through)

❖ **Introduce specifics of Following Through on Commands (refer to handout)**

- Review and discuss handout on Following Through on Commands
- Preface with rationale that Following Through on Commands are necessary for successful use of disciplinary procedures, shows child

that you pay attention both when they follow the command and when they do not, praises the child for following through
- Have teachers complete practice handout on Following Through on Commands and discuss answers
- Ask teachers to comment on why Following Through on Commands are key to successful discipline (e.g., reinforces good behavior, creates consistent expectations, etc.)

❖ **General guidelines re: Sit & Watch procedures**

- Provide brief history of timeout as used in PCIT as a framework for the Sit & Watch procedure.
- Explain that Sit & Watch was designed for use within a toddler/preschool daycare setting and was borrowed for use in TCIT as a parallel to the PCIT timeout procedure -- Sit & Watch is more practical, quick, and mild as a preventive measure than an exclusion procedure
- Note that the PRIDE skills are essential to the successful use of Sit & Watch procedures
- Explain that Sit & Watch is intended for use with behaviors that are incompatible with a safe functioning classroom, specifically:
  - **Repeated noncompliance** or failure to listen that interferes with the classroom activity
  - Behaviors that are **harmful to others**
- Review the steps of Sit & Watch in the TDI Overview handout (page 2) to remind teachers of basic components, reasons, and examples – note that they will develop the details to fit their classroom team.
  - Move child to a chair at the edge of the activity for a brief period (e.g., 1 minute) for identified misbehavior – be prompt & consistent
  - Have the child stay on the chair for the entire time interval & then invite child back to activity
  - Provide no attention during Sit & Watch (unless needed to return child to chair)
  - Use a consistent procedure to follow through if child gets out of chair
  - When child returns to activity, the teacher praises the first instance of appropriate behavior
- Ask about teachers' views of this procedure for their classrooms – note that we want to be sure they are comfortable with it, and to problem-solve issues as we work through the planning

❖ **Introduce Sit and Watch Planning Sheet and review the options to be decided by the classroom team**
- Emphasize importance of planning before implementing Sit & Watch with children
  - Important for all teachers to be on the "same page"
  - Bottom line: We want Sit & Watch to go smoothly for the teachers so we are providing this planning time to reflect upon ways to ensure they can implement the plan consistently

- Review the points to be completed on the Sit & Watch Planning Sheet & the rationale for the example given. Have teachers complete in session.
  - o Behaviors that warrant Sit & Watch – clarify the details with specific labels and descriptions
  - o Statement to initiate procedure – brief and consistent
  - o Location – ideally, where child can see what other children are doing and observe others receiving positive attention (i.e., PRIDE skills)
  - o Length -- note that 1 minute has been found to be sufficient, especially for younger children
  - o Elicit prior teacher experiences with the timing of timeout and use them to transition into next point
  - o Responding to children who will not stay in Sit & Watch or who misbehave – note back-up options, & provide rationale for having child go back to Sit & Watch after taken to quiet corner of the room. Refer to planning sheet for examples
  - o Announcing end of Sit & Watch – explain rationale for teacher to determine end rather than child
  - o Teacher attention after Sit & Watch -- Labeled Praise for first appropriate behavior

❖ **Discuss homework activity**

- Ask teachers to implement Sit & Watch in their classroom this week.

❖ **Introduce new bug-in-the-ear system (wireless)**

❖ **Closing**

- Have teachers complete TDI training evaluation form

Appendix F

JMU/DePaul TCIT Training
CDI Coaching Guidelines

Materials Needed

- TCIT Coding Sheets
- Clipboards with stopwatches
- Ear buds and transmitters
- Be familiar with DPICS codes and TCIT Observation Code

Goals of Coaching

- Continue to establish rapport with the teachers
- Shape use of PRIDE skills in vivo
- Support teachers in using planned ignoring for mild negative behaviors
- Problem-solve challenges in use of CDI skills
- Obtain data on teachers' skill use in 5-minute coding segments at beginning of coaching

Note: Be alert to signs of teachers' concern and discomfort during coaching, and use facilitative listening skills to respond to the teachers' concerns.

❖ **Coaching goals (20-minute in-class coaching)**

- Support and encourage teachers' use of PRIDE skills in various activities and across children, so sessions can build on each other
- Use coaching forms to document how coaching goes, difficulties, and suggestions for next coaching session (either trainer- or teacher-initiated suggestions)

❖ **Meet in classroom at convenient time for the teachers, if possible**

- Take coding sheets for recording CDI skills during first 5 minutes
- Select a time when teachers are going to be interacting with children individually or in small groups
- Ask teachers who would like to go first, etc
- Explain to teacher that you will first observe quietly for 5 minutes, and ask the teacher to use the CDI skills she has been learning

❖ **Observe and code an individual teacher for 5 minutes – code frequencies of PRIDE skills plus behaviors to reduce (Negative Talk and Questions)**

❖ **Coach for 10 minutes -- General coaching guidelines**

- Focus on skills that appear to need the most work as observed during the 5-minute coding. You may also ask the teacher which skill she feels would be most helpful to focus on in coaching. If neither applies, please see below for standardized coaching guidelines.
- First Coaching Session (ideally with only 1-2 children)
  - o Coaching Style: Attempt to give only positive feedback to teachers and ignore errors. Label your praises to teachers (e.g., "Good behavioral description" rather than "good")
  - o Give labeled praises for ignoring inappropriate behaviors
- Second Coaching Session
  - o Coaching Style: Continue praising the positive and start to give gentle corrections (ex. "Good job for what?" or "Oops, a question") and directives ("Try to label that praise" or "Go ahead and praise her for sharing")
  - o Focus on decreasing questions and increasing reflections
  - o Praise every reflection the teacher gives
  - o After repeated questions that the teacher does not recognize, say "question" and prompt teacher to change question to a statement. Praise teacher for doing so.
- Third Coaching Session and Beyond
  - o Coaching Style: Actively coach using directives, gentle corrections, and observations ("He's playing so nicely with the toys, go ahead and give him a labeled praise for that" or "By saying thank you and your welcome, you just set a good example for polite manners")
  - o Focus on increasing teachers' labeled praise
  - o Praise the qualitative aspects of the interaction (timing, genuineness, warmth, change in the child's behavior)
- For further ideas, please refer to the Common CDI Coaching Statements from the PCIT Treatment Manual (on next page)

❖ **After coaching, provide 3-5 minutes of feedback to process the coaching session with each teacher individually, being sensitive to the teacher's time and other classroom demands**

- Offer the teacher the option of providing feedback immediately following the coaching or at a later time that is more conducive
- Review use of PRIDE skills & examples
- Provide lots of support to teacher for cooperating with coaching and good general teaching skills (e.g., interesting activity, warmth, humor, calmness)
- If challenging situations arise, praise good examples of handling them & suggest alternatives if CDI skills (e.g., ignoring or praising the opposite) could have been helpful
- Ask teachers how it felt & what would be helpful in future coaching sessions
- Make an effort to start and end on a positive note

❖ **At completion of coaching, make notes of how it went on the back side of the TCIT Coding Sheet**

- Things to note:
  - ○ CDI skills that were the focus of coaching and how the teacher did (specific examples are very helpful)
  - ○ Difficulties encountered, and skills still in need of further training/practice
  - ○ Suggestions for the next coaching session (and if any were suggested by teacher)
  - ○ Teacher's comments or reactions related to coaching or classroom interactions, for discussion with TCIT team

COMMON CDI COACHING STATEMENTS

Labeled Praises		
That's good ignoring	Your play is so warm	Excellent labeled praise!
Nice imitating his play.	I like your enthusiasm!	Good catching that question
Great way to help him learn sharing	Good answering his question.	That's perfect following
Nice timing on giving attention again.	Excellent explanation	Your descriptions are excellent
Great modeling gentle play	Nice teaching description	Great behavior description!
Good choice to ignore that	Great remembering to label that	Nice way to reflect those words
Gentle Correctives		
You can just ignore that	Let's only praise <u>after</u> she does it	We don't want to get him too riled up
Maybe you could say what's good about it	Those questions are hard to catch, aren't they?	We want to reflect only when he's talking nicely
Probably better to put that away	Let's wait until she does it on her own	We don't need to give that attention
Direct and Indirect Suggestions		

Try to label that	You can reflect that	Maybe talk a little louder
Try holding it for her	Can you reflect that?	Praise her for picking it up
Now make it a statement	Reflect what she said	Can you think of a praise?
Tell her what she's doing	It's okay to help her	What are her hands doing?
You can answer her question	Just ignore until he comes back	Just build the same thing she's building
Observations		
That sounds very genuine	He loves your praise.	Now he's imitating YOU
You do a nice job of combining the CDI skills	He's been working on that for over 5 minutes!	He's paying such close attention to you.
She's talking more because you're reflecting	You play with her so warmly?	You sound so comfortable with the skills.
She's watching how you're doing that	She really wants to please you.	. She slows down when you slow down.
He's talking softer now	She's moving closer to you	He's learning to take turns.

Appendix G

Sample Teacher Interval Data Recording Sheet

Schedule #_____

Observer   A B C D

DPICS Sequential Data Recording Sheet
T-FORM

Teacher ID_____   Teacher ID_____
Observation Number _____   Observation Number _____
Observer ID _____   Observer ID _____

Circle One: Circle   Free Play   Transition   Circle One: Circle   Free Play   Transition

		NTA	DC	IC	LP	UP	QU	RF	BD	PTO	PR	CL
Interval 1	1											
	2											
	3											
	4											
	5											
	6											
Interval 2	1											
	2											
	3											
	4											
	5											
	6											

		NTA	DC	IC	LP	UP	QU	RF	BD	PTO	PR	CL
Interval 1	1											
	2											
	3											
	4											
	5											
	6											
Interval 2	1											
	2											
	3											
	4											
	5											
	6											

Teacher ID_____
Observation Number _____
Observer ID _____
Circle One: Circle   Free Play   Transition

		NTA	DC	IC	LP	UP	QU	RF	BD	PTO	PR	CL
Interval 1	1											
	2											
	3											
	4											
	5											
	6											
Interval 2	1											
	2											
	3											
	4											
	5											
	6											

Teacher behaviors:
NTA- sassy, sarcastic, rude or impudent speech
DC-statement that contains an order or direction
IC-a suggestion for a vocal or motor behavior to be performed
LP-a positive evaluation of a specific behavior of the child
UP-a positive evaluation of the child or nonspecific activity
QU-a verbal inquiry that has a rising inflection at the end
RF-declarative phrase that has the same meaning as a preceding
        child verbalization
BD-a non-evaluative sentence that describes child's ongoing or
        immediately completed behavior
PTO-any intentional positive contact between teacher and child
PR- Prompting child to follow through
CL-closing the loop correctly

Sample Child Interval Data Recording Sheet

Schedule #_____

Observer: A B C D (circle one)

Classroom: A or B   (circle one)

Child Behaviors

Observation # range: _____

Observer ID   _____

Date   _____

Minute 1		Y	DB	AB	C	TO	BA
	1						
	2						
	3						
	4						
	5						
	6						
Minute 2	1						
	2						
	3						
	4						
	5						
	6						

Minute 3		Y	DB	AB	C	TO	BA
	1						
	2						
	3						
	4						
	5						
	6						
Minute 4	1						
	2						
	3						
	4						
	5						
	6						

Minute 5		Y	DB	AB	C	TO	BA
	1						
	2						
	3						
	4						
	5						
	6						
Minute 6	1						
	2						
	3						
	4						
	5						
	6						

Minute 7		Y	DB	AB	C	TO	BA
	1						
	2						
	3						
	4						
	5						
	6						
Minute 8	1						
	2						
	3						
	4						
	5						
	6						

Minute 9		Y	DB	AB	C	TO	BA
	1						
	2						
	3						
	4						
	5						
	6						
Minute 10	1						
	2						
	3						
	4						
	5						
	6						

Undesirable Classroom Behaviors:

Y: Yelling-loud screeching, screaming or shouting

DB: Destructive Behavior-damaging, throwing and destroying objects

AB: Aggressive Behavior- fighting, kicking, slapping, hitting, pushing, shoving, grabbing an object from person, throwing object at person

C: Crying- inarticulate utterances of distress

TO: Talking Out of Order-any talking when class has been instructed to be silent unless called on to speak

BA: Being Out of Area- coded when a child leaves the area to which he or she is assigned without permission.

Appendix H

**The Devereux Early Childhood Assessment for Preschoolers, Second Edition
(DECA-P2)
(for children ages 3 through 5 years)**
Paul A. LeBuffe Jack A. Naglieri

During the past 4 weeks, how often did the child… (rating scale)

1. act in a way that made adults smile or show interest in him/her?
2. listen to or respect others?
3. control his/her anger?
4. seem sad or unemotional at a happy occasion?
5. show confidence in his/her abilities (for instance, say "I can do it!")?
6. have a temper tantrum?
7. keep trying when unsuccessful (show persistence)?
8. seem uninterested in other children or adults?
9. use obscene gestures or offensive language?
10. try different ways to solve a problem?
11. seem happy or excited to see his/her parent or guardian?
12. destroy or damage property?
13. try or ask to try new things or activities?
14. show affection for familiar adults?
15. start or organize play with other children?
16. show patience?
17. ask adults to play with or read to him/her?
18. have a short attention span (difficulty concentrating)?
19. share with other children?
20. handle frustration well?
21. fight with other children?
22. become upset or cry easily?
23. show an interest in learning new things?
24. trust familiar adults and believe what they say?
25. accept another choice when his/her first choice was not available?
26. seek help from children/adults when necessary?
27. hurt others with actions or words?
28. cooperate with others?
29. calm himself/herself down?
30. get easily distracted?
31. make decisions for himself/herself?
32. appear happy when playing with others?
33. choose to do a task that was hard for him/her?
34. look forward to activities at home or school (for instance,
birthdays or trips)?
35. touch children or adults in a way that you thought was
inappropriate?
36. show a preference for a certain adult, teacher, or parent?
37. play well with others?
38. remember important information?

Appendix I

TCIT Coaching Behavior Definitions

LABELED PRAISE: Coach provides a positive evaluation of the teacher, specifically addressing the teacher's behavior such as a verbalization or action

> Ex: Nice labeled praise; Great reflection; good description; I really like the way you told Johnny that you like the way he is coloring.

Category separated into three sections to identify the context of the labeled praise.

> Labeled Praise for LP/RF/BD/PTO,

> Labeled Praise for other positive, UP/Enjoyment/Imitation

> Labeled Praise for appropriate use of DC/Q/NT/planned ignoring

UNLABELED PRAISE: Coach provides a positive evaluation of the teacher, or a nonspecific behavior of the teacher.

> Ex: That was great!; Good: Excellent; Nice; You are doing very well

DESCRIPTIVE LABEL: Coach describes teacher behavior in a non-evaluative way.

> Ex: You are waiting; Reflection; Description; indirect command

INDIRECT COMMAND: Coach provides a suggestion for a vocal or motor behavior to be performed that is implied or stated in question form.

> Ex: That was a question, wasn't it?;

DIRECT COMMAND: Coach provides a declarative statement that contains an order or direction for a particular vocal or motor behavior to be performed.

> Ex: Describe what Jane is doing; Look around to see what's happening

HIGHER ORDER: Coach provides a declarative statement that contains an order or direction for a particular vocal or motor behavior to be performed.

> Ex. This increase in inappropriate behavior is a result of your shifting attention to other more appropriate behavior; That's the way to close the loop following a command; Greta follow-through after that answer; It is good how you keep an eye on all activities in the classroom; The children really enjoyed that story

CRITICAL STATEMENT: A negative statement of the teacher's behavior.

> Ex: No, stop repeating your question.

INCORRECT STATEMENT: Incorrectly identifying the teacher's behavior in any way.

> Ex: Great labeled praise. (When the praise is unlabeled.)

(Barkaia & Stokes, 2014; Adapted from Chase, 2011 PCIT conference presentation)

Sample Coaching Interval Recording Sheet

Coaching Comments

	LP 1	LP 2	LP 3	UP	DL	IC	DC	CL	HO	CS	IS
1											
2											
3											
4											
5											
6											

LP1: Labeled Praise for labeled praises, reflections, behavior descriptions, positive touch
LP2: Labeled Praise for other positives, unlabeled praise, enjoyment, imitation
LP3: Labeled Praise for appropriate use of direct commands, questions, neutral talk, planned Ignoring
UP: Unlabeled Praise
DL: Descriptive Label
IC: Indirect Command
DC: Direct Command
CL: Closing the Loop
HO: Higher Order
CS: Critical Statement
IS: Incorrect Statement

Date _____
Teacher ID _____
Coaching time _____
Observer ID _____
Rxx Observer ID _____

Appendix J
Teacher-Child Interaction Training Evaluation Form
Harrisonburg

Directions: Please complete this form without putting your name on it.

Date:

Training Phase:

Please check the box that best reflects your agreement with the following statements.

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
1. These sessions taught me skills I can use in my interactions with the children in my classroom.	☐	☐	☐	☐	☐
2. These sessions made me feel better able to communicate with the children in my room.	☐	☐	☐	☐	☐
3. These sessions made me feel better able to control and discipline the children in my room.	☐	☐	☐	☐	☐
4. The activities helped me learn the material presented.	☐	☐	☐	☐	☐
5. The trainers were knowledgeable and experienced in the topic covered.	☐	☐	☐	☐	☐
6. The presentations and activities were organized and clear.	☐	☐	☐	☐	☐
7. Overall, these sessions were useful.	☐	☐	☐	☐	☐

The best features of the sessions were:

Suggestions for improvements include:

Other comments and reactions I wish to offer: