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Teacher Child Interaction Training as a universal prevention program in preschool and kindergarten classrooms

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Teacher Child Interaction Training as a Universal Prevention Program in Preschool and
Kindergarten Classrooms

Jessica Rossi

A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

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Abstract

The current study assessed the effectiveness of Teacher Child Interaction Training (TCIT), an adaptation of Eyberg's Parent Child Interaction Therapy (PCIT), on teacher and child behaviors in preschool and kindergarten classrooms. The sample included four classrooms in urban, socioeconomically disadvantaged and culturally diverse settings. Two preschool classrooms were included in the first study and one preschool and one kindergarten classroom were included in the second study. Both studies used a concurrent multiple baseline design to evaluate the effects of training and coaching on teacher and child behaviors in the classroom. The intervention focused on the development of a friendly attachment relationship, the strategic application of differential social attention and the use of careful discipline, including a "sit-and-watch" timeout procedure for the most challenging inappropriate behavior in the classroom. Teacher and child behavior changes were measured through observations and clinical ratings. Visual analyses of the graphs indicated teachers increased their skills and children decreased their disruptive behavior. Repeated measures ANOVA's and follow up t-tests indicated changes in increases in protective factors and decreases in maladaptive factors.

Introduction

The purpose of the present study is to investigate the effectiveness of Teacher Child Interaction Training (TCIT) as a universal prevention program in preschool and kindergarten classrooms. Children between the ages of three and six years old are rapidly developing their social and emotional skills at a pace exceeding any other later life stage. Their behaviors are flexible and are receptive to adult-directed socialization processes. School-based prevention programs during early childhood have potential to encourage positive growth and development in young children.

School-Based Prevention Programs

Walker and his colleagues developed a model with three levels of interventions which get progressively more intense, as a way to address challenging behaviors within schools (Walker, Horner, Sugai, Bullis, Sprague, Bricker and Kauffman, 1996). There are three levels within this model of intervention, known as universal, selected and indicated. This model has proved to be very popular among educational researchers.

Universal interventions are school or classroom practices that are implemented for all students. The intervention is aimed at all students for several reasons. Universal interventions improve almost all students' behavior. These types of programs have the greatest impact on the students who are just beginning to show disruptive behaviors, although even with students with a history of disruptive behavior, these programs set a foundation that supports students throughout the day. Approximately 80 to 90 percent of students will respond to a universal intervention that is well implemented (Sugai, Horner & Gresham, 2002). Once the program is successfully implemented and the environment

is orderly, the students having challenges in the classroom will be more visible. These students have “selected” themselves as needing more powerful interventions. With this second tier of selected students the goal is to reduce problem behaviors, increase appropriate behaviors, and make the children more responsive to universal interventions (Sugai, Horner & Gresham, 2002). Selected interventions are school based, but parent involvement is often needed.

While the universal and selected programs target most of the school population, it is expected a small percentage (about one to five percent) will still display disruptive behavior. Interventions to address this group are called indicated, and are typically for children who require very intensive, individualized, and expensive treatments (Walker, Ramsey and Gresham, 2004). This three tiered intervention model offers a structure for educators to help them coordinate program implementation, and meet the students’ needs.

In a meta-analysis of universal prevention programs for aggression and disruptive behaviors, results indicated that younger students and children with lower socioeconomic status showed larger effects from universal programming. Results indicated the most common and effective approaches for reducing aggressive and disruptive behavior were universal programs delivered to all the students in the classroom or school (Wilson & Lipsey, 2007). Universal prevention programs are often indicated when there are challenges managing children’s behavior, additionally these programs are cost effective and do not target any children specifically.

Teacher Concerns and Need for Empirically Supported Community and School Based Treatments

When children with behavioral concerns are in classrooms, teachers need to devote more time to these children. Teachers reported that the time needed to attend to disruptive behaviors decreases the time the teachers were able to devote to learning (Hart, Lahey, Loeber, Applegate & Frick, 1995). Even when teachers do have the time to address behavior concerns, they do not feel adequately trained. Merrett and Wheldall (1993) found that 75% of teachers reported not being prepared to manage children with challenging behaviors, and 72% reported they were dissatisfied with the level of training provided to deal with such behavior problems. Behavioral difficulties can damage the student-teacher relationships (Birch & Ladd, 1998). Children who have problematic relationships with their teachers show academic and behavioral difficulties which may lead to problems in overall school adjustment (Justice, Mashburn, Hamre, & Pianta, 2008).

Due to the early emergence of impairments and the established negative trajectories, universal prevention and early intervention programs are important. While many programs have been established to be used with parents and have proven effective, children often do not have access to these programs and must receive services in the community or schools. Having school-based prevention programs that actively involve teachers, may be promising for populations less likely to seek traditional mental health services (Atkins et al., 2006; Breitenstein et al., 2007). This can include individuals of minority status including immigrants, refugees, and students who speak English as a second language.

In urban school districts, there is more likelihood of higher concentrations of poverty, greater racial and ethnic diversity, larger concentrations of immigrant populations, and linguistic diversity, and more frequent rates of student mobility (Kinchelov, 2010). Young children who are vulnerable benefit greatly from developing strong relationships with their teachers and other school staff members. There is a need for interventions in the schools.

Weisz, Sandler, Durlak and Anton (2005) have emphasized the need to adapt empirically supported treatments to the community contexts, such as schools, and see how practicable they are to use. Williford and Shelton (2008) looked at the use of empirically supported parent-training interventions and their application in the classroom. Overall results suggest that behaviorally based strategies can effectively be adapted for teachers. Having teacher implemented school based programs gives rise to the potential to reach underserved populations and promote healthy classroom environments for the children and the teachers. With disruptive behavior disorders (DBDs) affecting up to 16% (American Psychiatric Association, 2000) of children, a school based universal prevention program targeting reducing attentional and behavioral issues could reach a large group of children who either have clinical or subclinical behavioral issues.

The APA Task Force on the promotion and dissemination of psychological procedures identified six empirically based treatments for young children with DBDs (Chambless & Hollon, 1998). Most consisted of parent training interventions, although one program consisted of multiple parts. The Incredible Years, which consists of three independent training programs, (child, parent and teacher), was reviewed (Webster-Stratton, 2003). The child and parent training programs were found to be probably

efficacious. Although the teacher program was possibly efficacious when combined with the child and/or parent protocols, and it did not meet criteria as a stand-alone intervention. These findings highlight the gap between evidenced based treatments for DBDs in the home versus the classroom.

Webster-Stratton and colleagues (2008) have demonstrated wide success with Head Start children, parents and teachers for many years, with the Incredible Years programs. Results demonstrated that teachers in Incredible Years programs used more social and emotional teaching strategies and children in the treatment condition have significant improvements in emotional self-regulation, social competence and conduct problems compared to the control group (Webster-Stratton et al., 2008). While the results are encouraging, there are limitations to the application of this program.

Eyberg, Nelson and Boggs (2008) identified evidence based treatments (EBTs) for children and adolescents with disruptive behavior. A review of literature from 1996 to 2007 found EBTs for disruptive behavior. Sixteen EBTs were identified as meeting criteria, as EBTs developed by the task force on promotion and dissemination of psychological procedures (Chambless et al., 1998). The criteria included prospective study design, clear inclusion/exclusion criteria for the sample, appropriate control or comparison conditions, random assignment, reliable measures of disruptive behavior, clearly specified sample characteristics, clearly described statistical procedures, as well as a clearly defined treatment protocol or manual for the intervention for treatment fidelity.

Parent-Child Interaction Therapy (PCIT) was one of the sixteen EBTs identified. PCIT was identified as meeting criteria as a probably efficacious treatment for 3 to 6 year olds with disruptive behavior. In addition, Shriver and Allen (2008) reviewed parenting

program literature for children with behavior problems. One of the programs they identified was Parent-Child Interaction Training. They identified PCIT as being appealing to practitioners, cost effective and widely disseminated.

Disruptive Behaviors in Children

During normal development children engage in noncompliant and aggressive behaviors. Usually these types of behaviors increase until about the age of three and then decline during the remaining preschool years (Forehand & Wierson, 1993). In 2000, the American Psychiatric Association reported that disruptive behavior disorders (DBDs) affect 16% of children. Disruptive behaviors in young children cause difficulties with families, schools and mental health professionals. Disruptive behavior disorders, including oppositional defiant disorder (ODD) and conduct disorder (CD), are a group of disorders defined by the persistent presence of negative, defiant or rule breaking behavior which is disruptive to the child's social, academic, family or personal functioning (American Psychiatric Association, 2000). DBDs are associated with patterns of escalating problematic behaviors that can lead to negative life consequences, in social, academic and occupational functioning, substance abuse and potentially incarceration (American Academy of Child & Adolescent Psychiatry, 2007). Studies exploring rates of psychiatric disorders among preschool children found that ODD was the most common disorder, occurring at 13.4%, with 8.3% of those disorders being classified as severe (Lavigne, LeBailly, Hopkins, Gouze & Binns, 2009).

Unfortunately, fewer than 10% of the children who need treatment for ODD and CD actually receive services (Kazdin & Kendall, 1998), and less than half of those children actually receive empirically supported treatments (Chambless & Hollon, 1998).

Children with problematic behaviors are at high risk for academic problems, school absence, teacher conflict, expulsion, and eventually school drop-out, delinquency, substance abuse and violence (Gilliam, 2005; Snyder, 2001; Webster-Stratton & Taylor, 2001). DBDs that develop in childhood have been shown to persist over time (Carter, Briggs-Gowan & Davis, 2004; Wakschlag, Leventhal, Thomas & Pine, 2007) and over time the conduct problems become increasingly resistant to change (Webster-Stratton, Reid, & Hammond, 2001).

In addition to oppositional defiant disorder and conduct disorder, children with attention-deficit hyperactivity disorder (ADHD) often have behavioral difficulties. Concerns that lead to referral for children with ADHD from parents include aggression and noncompliance. In preschoolers, ADHD is often identified in addition to oppositional and aggressive behaviors. Most preschoolers with ODD are at high risk of meeting criteria for ADHD by age 7 (Cunningham and Boyle, 2002).

Children with disruptive behavior disorders often do not receive treatment, and when they do, it is not an empirically supported treatment. Parent Child Interaction Training is one treatment that is probably efficacious treatment for 3 to 6 year olds with disruptive behavior. PCIT is a strong treatment for parent-child dyads in treating disruptive behavior.

Development of Parent Child Interaction Training

Understanding the development of PCIT and its need and place in addressing behavioral problems begins with the history of treatment of children with behavioral problems. Pre 1940's parents rarely were involved in the treatment of a child. Primarily psychodynamic and client-centered approaches prevailed and did not include parent

involvement. Parents play a vital role in the development of their child, and they can play a role in changing the behavior of their child. Both play therapy and behavioral therapy became more popular approaches to treating children and these elements are essential to PCIT.

Play therapy as described by Virginia Axline (1947) consisted of the therapist following and reflecting the child's behavior and emotions during play to show acceptance of the child. With the child able to safely express their emotions the therapist helped the child during play to experience and try out alternative solutions to problems they may have. The second predominant treatment at this time was child behavioral therapy, at this time it was in its infancy. The model focused on the child's parent as the direct agent of change. The therapist and parent met weekly to design programs based on learning theory. The parent would apply work on specific behavior problems at home and the parent would keep track of the data. The graphs were used to show progress each week until the problem was resolved. Both play therapy and behavioral therapy were used with children at this time, but used separately. The parent-child relationship was either not part of the therapy, or the parent was used as the direct agent of change. The study of interaction patterns between children and their parents was just beginning to emerge.

Baumrind (1967), a developmental psychologist who studied parenting styles, was able to identify healthy parent-child interactions. She found that an authoritative parenting style leads to the healthiest outcomes for children. This style combines nurturance, with clear limit setting and boundaries.

By identifying healthy parent-child interactions this began to set the foundation for the development of Parent Child Interaction Therapy (PCIT). Ultimately the unifying structure of PCIT was identified in the work of Constance Hanf. Dr. Hanf worked on improving compliance in developmentally disabled children. She trained mothers in two stages, Stage 1 (Child's Game) and Stage 2 (Mother's Game). During Stage 1 both differential attention and selective ignoring were techniques taught and used by the mother. During Stage 2 the mother would have the child complete various tasks and time out was contingent upon noncompliance. First, there was didactic time before a mother would interact with her child, and then during interaction Dr. Hanf and her team used a bug-in-the-ear system. Dr. Hanf also identified very specific criteria needed in order to move from Stage 1 to Stage 2, as well as termination (Reitman & McMahon, 2013). Having a two stage model with direct instruction and observation led to the development of the current day PCIT.

Parent Child Interaction Therapy was designed in the early 1970's at the Oregon Health Sciences University to integrate the two prominent but theoretically different treatments for children. The treatment was named PCIT in 1974 and developed by Sheila Eyberg. Meanwhile, there continued to be research looking into both parent-child and teacher-child interactions.

Early Parent and Teacher Child Interactions

Harris, Wolf and Baer (1964) explored the contingent use of teacher attention to address undesirable behavior in nursery school children. The teachers were taught to attend to the child only when the child was engaging in acceptable behavior and ignore

the child when the child was engaging in undesirable behavior. A reversal design was employed to understand the function of the behavior. The results overall indicated that the teachers attention was a significant influence upon child behavior. In addition, the teachers' attention must be positively reinforcing to the child for positive results.

Cooper, Thomson and Baer (1970) found that a simple, but consistent training procedure can modify teacher behaviors, specifically the selective attention to appropriate child behavior. A multiple baseline design across two preschool teachers was used to sequentially introduce the treatment. Treatment included giving feedback to the teachers about their current success in attending to appropriate responses from children. The specific behaviors trained were those increasing, indicating the treatment was targeting the behaviors chosen. Probes were conducted which showed consistent ratings and maintenance. Positive social attention directed toward appropriate child behaviors steadily increased and training was successful. Data collection for the teacher variables was conducted, although Cooper et al (1970) identified the need to look at the children's behaviors as well. Teachers were able to successfully learn to use social attention contingent on appropriate child behaviors.

Parsonson, Baer and Baer (1974) trained teachers using feedback to apply generalized "correct" social contingencies. Teachers were working in a kindergarten style program with children with mental retardation. A multiple baseline design was used to address attending behaviors of the teachers. The effect of the training was to increase the proportion of appropriate child behaviors attended to, in comparison to baseline rates. Results were durable across time.

In addition to looking at teacher behaviors in preschool classrooms, observing parent interactions and social attention found similar results. Budd, Green and Baer (1976) used a multiple baseline design across behavior sets to address noncompliance with a three year old child who was developmentally delayed. The child's mother participated in the study being trained in behavioral techniques. The mother was taught to withhold various forms of social attention to her daughter's undesired behaviors. In addition, the parent was trained in time out procedures for non-compliance with instructions. Trainings consisted of initial instructions and daily feedback which resulted in robust changes. Behaviors targeted in each phase were reduced. Although with the fourth behavior there were increases in unwanted behavior and time out was introduced. Ultimately the time out procedure lead to a large reduction in the unwanted behavior. Follow up data, up to sixteen weeks later, showed the effects were durable. The complete package of initial instructions and daily feedback sessions led to efficient and durable changes. The implementation of using behavioral training in selective attention with both teachers and parents was successful.

Parent Child Interaction Therapy

Research on the effects of PCIT as a specific intervention model indicated positive outcomes. The effects of PCIT on seven referred children, their siblings and the psychological functioning of their parents were measured using multiple processes and outcome measures (Eyberg and Robinson, 1982). Parents were seen once a week with the referred child for one hour. Treatment lasted 8-12 weeks and parents were trained in Child Directed Interaction (CDI) and Parent Directed Interaction (PDI) sequentially.

Parents were taught through description and modeling of the basic rules. During the CDI phase, parents were taught to follow the child's lead by reflecting the child's statements, answering their questions, describing and praising the appropriate behavior and ignoring inappropriate behavior. The parent was also taught to not direct talk or play, question the child, criticize or punish. The purpose of this interaction was to create, or strengthen, a positive and rewarding relationship (Eyberg and Robinson, 1982). During PDI parents continued CDI skills, but also were taught how to direct the child's activity when necessary. Parents learned to give clear directives that called for behavior the child was capable of and to provide consistent consequences in the form of praise for compliance, and time out for noncompliance. PDI was introduced to increase low rate prosocial behavior and to decrease inappropriate behaviors that could not be ignored.

Results indicated that parents can change both their interactional style and the behavior of their children in a brief, clinic based treatment program. Parents were able to interact in a positive non-directive way, as well as learn to make straightforward requests, and follow through with consequences. Effects generalized to the untreated sibling's behavior, the observed deviant behaviors were within normal limits at the end of the study for both target children and siblings. Results from this preliminary study, while strong, should be considered tentative as there were no control groups (Eyberg and Robinson, 1982).

Maddux, Eyberg and Funderburk (1989) described the phases of PCIT in depth and an assessment strategy for a preschool age child with conduct problems. "PCIT assumes that conduct problems exhibited by young children are established in the earliest

interactions between parent and child” (Maddux, Eyberg and Funderburk, 1989, p. 162).

While there may be a biological explanation the child’s vulnerabilities for behavior problems were influenced by their early interactions with parents. PCIT assumes the conduct problems of a preschool child are parent-child interaction problems and PCIT attempts to change the interaction pattern. Maddux, Eyberg and Funderburk (1989) discussed the need for mastery of CDI skills before moving to the next phase, PDI. Assessments include behavioral interview as well the Eyberg Child Behavior Inventory (ECBI), a rating form for parents and the Sutter-Eyberg Student Behavior Inventory (SESBI) a rating form for teachers. The Dyadic Parent-Child Interaction Coding System (DPICS) is an observational method used in PCIT. Data collected using the DPICS provides therapists with data. As the data collection system began to take hold, there also was a question as to the validity of the two phases and there sequence.

The sequence of PCIT starting with CDI and being followed by PDI had not been examined to determine if the traditional order results in better outcomes than a reversal of stage sequences. Eisenstadt, Eyberg, McNeil , Newcomb and Funderburk (1993) explored the sequence of PCIT. The PDI stage was found superior to the CDI stage in improving child behavior problems and compliance. In addition, the groups were compared at post-treatment, the PDI- first groups were more improved on parent report of conduct problems and mothers were more satisfied with therapy. Overall the families from both groups moved from outside normal limits to within normal limits on multiple measures including compliance and maternal stress (Eisenstadt, Eyberg, McNeil , Newcomb & Funderburk,1993).

Parent Child Interaction Therapy primarily focused on problems within the parent-child relationship. Measuring the generalization of behavior changes in the school was an additional focus (Stokes and Baer, 1977). Funderburk, Eyberg, Newcomb, McNeil, Hembree-Kigin, and Capage (1998) evaluated the generalization of the treatment effects of PCIT from home to school. No direct classroom interventions were conducted. Children were referred due to severe conduct problem behaviors in both the home and school. There were three subject groups: the treatment group, normal classroom controls, and untreated deviant classroom controls. Results from this study indicate that using PCIT to address home behavior problems result in improvements in certain behaviors in the school setting. The school generalization was found primarily in the area of conduct problems and oppositional behavior. “One potentially important finding from this study that has not been documented previously is that maternal report of the magnitude of improvement in home behavior problems was significantly related to teacher report of the magnitude of improvement in school behavior problems ($r = .78$)” (Funderburk, Eyberg, Newcomb, McNeil, Hembree-Kigin, & Capage, 1998, p. 148). Both mothers and teachers reported seeing similar changes in behavior problems across settings, indicating a generalized effect. Further studies must address the maintenance of positive behavior overtime and across settings.

Parent Child Interaction Therapy is an effective treatment that is widely applicable to a range of populations, has treatment gains that are maintained over long periods of time, and can be adapted for many different clients and populations. Given PCIT’s success in improving parenting skills and reducing problematic behavior, Teacher-Child Interaction Training (TCIT) has emerged. Children spend a lot of time

with both their parents and their teachers and reaching children at school may be an effective adaptation of PCIT.

Teacher Child Interaction Training

A few studies have looked at the effectiveness of TCIT in preschool classrooms. McIntosh, Rizza, and Bliss (2000) conducted a single-subject case study. A child was chosen due to her disruptive behaviors, as well as her difficulty following commands. Similar to PCIT there were two phases which consisted of five sessions in Child-Directed Interactions and seven sessions in Teacher-Directed Interactions. There was an increase in positive interaction, as well as an increase in compliance. There were reductions in disruptive behaviors, as well as a decrease in commands. Sessions were predominately held outside the classroom, experimental control, as well as generalization to the classroom, were unclear although it offered some support for an adaptation of PCIT to the classroom.

Filcheck, McNeil, Greco, and Bernard (2004) compared their model of TCIT to a class-wide token economy. The authors used an ABACC' design where (A) represented the current strategies used or baseline, (B) represented the class-wide token economy, (C) represented the CDI phase of PCIT, and (C') represented the PDI phase of PCIT. While both systems demonstrated improvements, their model of TCIT was more effective in reducing negative talk directed toward students, as well as better rates of compliance. Results were obtained during circle time only, which does not allow for observation of generalization throughout the day.

Tiano and McNeil (2006) used PCIT skills in Headstart classrooms. No-treatment control classrooms were compared to classrooms receiving the modified PCIT. The PCIT skills were used to target the group rather than just individual behavior. Didactic instruction was delivered in groups to the teachers. The trainings consisted of a didactic piece, as well as live coaching in the classroom. Results indicated the inappropriate behavior improved, regardless which classroom the children were in. Although the teachers in the intervention group used more labeled praises, than the control group after treatment.

Lyon, Gershenson, Farahmand, Thaxter, Behling, and Budd (2009) looked further into TCIT and its effects, as well as attempting to expand on past adaptations. Karen Budd and her students at DePaul University developed a TCIT program that serves as a Universal Prevention program in preschool. The DePaul Model of TCIT preserves many of the core aspects of PCIT. The adaptations include, a subset of established PCIT skills, a group training format, utilization of skills with multiple children at the same time, a time limited approach and in classroom coaching (Gershenson, Lyon, & Budd, 2010; Lyon et al., 2009). Teacher observations were conducted one to two times per week to evaluate the teacher skills. Teacher behaviors were coded using the Adapted version of the Dyadic Parent-Child Interaction Coding System (Eyberg, Nelson, Duke, & Boggs, 2009). The teachers were observed between two and ten minutes during the observation period and behaviors were coded as present or absent during 10-second intervals. The study used a non-concurrent multiple baseline design to examine effects of TCIT across four classrooms. Results demonstrated small to moderate effects in teachers' use of positive behaviors.

Purpose of the Present Study

Adapting PCIT to TCIT has shown promising results in multiple studies. The teacher-child relationship is vital to a child's success in the classroom. Using TCIT as a universal prevention program and exploring both teacher and child behaviors will lead to a better understanding of TCIT and its implementation. Doing a systematic replication and expansion of TCIT, as completed by Lyon, Gershenson, Farahmand, Thaxter, Behling, and Budd (2009) will further the literature on the understanding of TCIT, and its effects in preschool and kindergarten classrooms. Previous replications of TCIT in a rural, public preschool setting (Devers, Rainear, Stokes and Budd, 2012) have been conducted based on the DePaul model of TCIT (Lyon, Gershenson, Farahmand, Thaxter, Behling, & Budd, 2009).

By replicating the previous study in a rural, public preschool setting as well as expanding to kindergarten classrooms, this will build and expand on previous empirical support for the DePaul model of TCIT. This current study will offer support for a universal prevention program in both preschool and kindergarten classrooms based on the DePaul model of TCIT.

This study will retrospectively examine data collected from two studies conducted in Spring 2012 and Spring 2013. The first study looked at the effects of the DePaul model of TCIT across two preschool classrooms. The second study looked at the effects of the DePaul model of TCIT in one preschool and one kindergarten classroom.

Expected Outcomes

1. Teachers receiving TCIT will increase their use of positive behaviors [Labeled Praise(LP), Reflections(RF) and Behavior Descriptions(BD)] and decrease their use of negative behaviors [Negative Talk (NTA), Commands (CO) and Questions (QU)], relative to their baseline rates of positive and negative behaviors.
2. Children will demonstrate decreases in rates of in-classroom disruptive behaviors [Yelling (Y), Destructive (D) and Aggressive (A)] and increase rates of adaptive classroom behaviors (Answers to Questions and Compliance to Commands) relative to their baseline rates of disruptive and adaptive behaviors.
3. Teachers' reports of student problem behaviors will decrease from pre- to post-test measures. Reports of protective factors and adaptive factors will stay the same or increase from pre- to post-test measures.

Methods

Study 1

Participants and Setting

This study was conducted in an elementary school in rural Virginia, in two preschool classrooms. One preschool classroom was part of the Headstart program, while the other classroom was a general education classroom. One female head teacher and one female instructional assistant participated from the general education classroom. One female instructional assistant from the Headstart classroom participated. (The head teacher in the Headstart classroom previously was trained in TCIT procedures.) While individual data were not used as part of the visual analysis of the study, the head teacher's pre- and post-data for the children was included for other analyses. Each class had 18-20 students, ranging in age from three to five years old. English was the second language for over 90% of the students, with Spanish being the primary language spoken. Seventy-seven percent of children qualified for free or reduced lunch.

All methods and procedures were approved through the James Madison University Internal Review Board (IRB). For consent, a letter was sent home to caregivers describing the purpose and procedures of the study and offering an opportunity

to opt out if they did not want their child to participate (Appendix A). After letters in both English and Spanish were sent home teachers made contact with the families to make sure they understood the letter and agreed to participation. Both teachers and students were assigned random numbers for identification in order to protect their confidentiality. Before the study began the teachers were asked to identify five children who were more difficult to manage in the classroom, identified as nominated children.

Each classroom was about 36 square meters in size, with six or seven “centers” with various activities and toys. Both classrooms had a designated area for Circle Group, as well as a computer station with two computers. Each morning, the schedule consisted of Circle Group, in which the class settled, sang a song in greeting and the teacher read a book or engaged in an activity related to the lesson of the day. This was followed by Center Time, in which the students were allowed to play freely in the station of their choosing, with items such as building blocks, computer games, picture books, dress-up clothes and an art project, or perform assessments on individual children. The last activity observed for the study was Clean Up.

Dependent Variables

Behavioral Observations. Nine teacher behaviors were selected from those listed in the Dyadic Parent-Child Interaction Coding System-Third Edition (DPICS 3rd Ed., Eyberg, Nelson, Duke, & Boggs, 2005) based on the relevance and intended outcomes. These behaviors are defined below (Table 1).

Table 1.

Teacher Behaviors (DPICS-3rd Edition)	
Negative Talk (NTA)	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.
Direct Command (DC)	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.
Indirect Command (IC)	a suggestion for a vocal or motor behavior to be performed that is implied or stated in question form.
Labeled Praise (LP)	provides a positive evaluation of a specific behavior, activity, or product of the child.
Unlabeled Praise (UP)	provides a positive evaluation of the child, an attribute of the child, or a nonspecific activity, behavior, or product of the child.
Question (QU)	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.
Reflective Statement (RF)	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.
Behavioral Description (BD)	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.
Positive Touch (PTO)	any intentional positive physical contact between teacher and child.

Teacher behaviors were observed and recorded by a team of six undergraduate and graduate psychology students. Several observers were previously trained and participated in data collection in a prior study; these observers met weekly and reviewed materials and practiced coding. New observers spent one semester reviewing the manual, practicing data collection and consulting with previous observers. All observers visited the classroom several times prior to the study so both teachers and children habituated to their presence. When observers were in the classroom they did not interact with the teachers or children, they recorded their observations without interfering with normal classroom activities. After observers had been in the classroom children did not initiate interaction with the observers.

Observations were collected three mornings of the week from 9:50 to 11:10am. Observers recorded two-minute samples of teacher behaviors in 10-second intervals. The observers listened to a recording signaling the intervals from an MP3 player. Teachers were observed approximately twelve times per day.

The schedule of observations was randomized into three schedules (Appendix B). Approximately 20% of the observations were used for inter-observer reliability. During reliability observations the observers used a headphone splitter and stood about one meter apart. This allowed for independent observers to use the same interval recording and ensured observers could not see each other's records. Observer's collected data on certain days due to their own schedules as well as the schedules of the schools. Observers would rotate between observer A, B and C. A listing of which observer would assume which observer letter was with the schedules ensuring observers would stay on track. An

absentee schedule was also created in case an observer could not take data. Observers arrived 20 minutes early to prepare their data sheets and review their observation schedule.

Multiple randomized schedules were created to ensure a random sample was collected. The number of observations was divided so each teacher was observed for approximately the same amount of time. Teachers were observed for about 12 two-minute intervals per day. The schedule was randomized by giving the teachers numbers from 1 to 26. For teacher A they would have numbers 1 to 13 and for teacher B they would have 14 to 26. Next the random number generator would be used to fill in the 26 observations. This ensured that observers randomly observed the teachers during this time period.

Interobserver Reliability. To calculate interobserver reliability a Cohen's Kappa (Cohen, 1988) was used. Due to the volume of data and the need to correct for chance among observers and for multiple observers the Kappa was chosen. The Cohen's Kappa is a statistical measure of inter-rater agreement for categorical items. It is a more robust measure than percent agreement calculation because it takes into account the agreement occurring by chance. Cohen's Kappa is considered to be an improvement over using percent agreement to evaluate reliability. Landis and Koch (1977) set standards for kappa values. Kappa values between .00 and .20 are slight, between .21 and .40 fair, between .41 and .60 are moderate, between .61 and .80 substantial and between .81 and 1.00 almost perfect (Landis and Koch, 1977). Interobserver reliability was calculated for each of the nine teacher behaviors.

Devereux Early Childhood Assessment (DECA). To assess children’s social and behavioral competence teachers and assistants filled out the Devereux Early Childhood Assessment (DECA) for each child before and after the intervention. The DECA is used as a universal screener to identify within-child factors. The DECA is based on resilience theory and is a comprehensive strengths based assessment of within-child protective factors in preschool children (LeBuffe & Naglieri, 1999a). The DECA contains 37 items, 27 items address within-child factors, 10 items address social and emotional problems. The DECA consists of three protective factors, a composite of the three scales and a behavior concerns scale (Table 2).

Table 2.

Scale	Defined
Initiative (IN)	Assess the child's ability to use independent thought and action to meet his or her needs.
Self-control (SC)	Measure the child's ability to experience a range of feelings and express them using words and actions that society considers appropriate
Attachment (AT)	Assess 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-control and Attachment; overall strength of child’s protective factors
Behavior Concerns (BC)	Address social and emotional problems

The DECA can be completed by a child’s caregiver or teacher as long as they are qualified. Questions are framed as “During the past four weeks...”, thus the caregiver

and/or teacher must have sufficient exposure to the child in the past month. It is operationalized as two or more hours a day at least two days per week (LeBuffe & Naglieri, 1999b).

The DECA was standardized with a sample that represented the United States demographically at the time of standardization. Internal reliabilities for ratings for teachers are considered high. The median Cronbach's alpha (α) coefficients for internal consistency of the scales across raters were .93 for TPF, .87 for IN, .81 for AT, .88 for SC, and .76 for BC.

The validity of the DECA has been evaluated through several studies. The ratings of the DECA were used to discriminate between children with or without behavioral or emotional problems, gaining criterion-related validity. One important factor is the DECA has shown not to differ on scores only related to minority status. Construct validity was also identified when compared with other similar measures. There is strong evidence that the DECA is an effective universal measure of protective and risk factors in preschool children (LeBuffe & Naglieri, 1999b).

Study 2

Participants and Setting

This study was conducted in two elementary schools in rural Virginia in one preschool classroom and one Kindergarten classroom. Both classrooms were general education classrooms. One female head kindergarten teacher, one female head preschool teacher and one female preschool instructional assistant participated in the study. Each

class had 14-20 students, ranging in age from three to six years old. English was the second language for over 90% of the students, with Spanish being the primary language spoken. Seventy-seven percent of children qualified for free or reduced lunch.

Consent procedures were the same as in the first study. Although interpreters had to be used to communicate with some families to make sure they understood the teacher training program. In this study children were not nominated by their teachers as having difficulties in the classroom. Clinical ratings were used to identify children at risk. All children participated in the study with no parents declining participation in the data collection.

The preschool classroom was about 36 square meters in size, with seven “centers” with various activities and toys. The classroom had a designated area for Circle Group, as well as a computer station. Each morning, the schedule consisted of Circle Group, in which the class settled, sang a song in greeting and the teacher read a book or engaged in an activity related to the lesson of the day. This was followed by Center Time, in which the students were allowed to play freely in the station of their choosing, with items such as building blocks, computer games, picture books, dress-up clothes and an art project, or perform assessments on individual children. The last activity observed for the study was Clean Up.

The kindergarten classroom was about 40 square meters in size with, an area for the morning meeting, four tables with chairs for each student, an additional table used by the head teacher and an open area with activities. Each morning, the schedule consisted of morning meeting, where the students gathered to go over the schedule for the day, on

the carpet and engaged in pre-reading and writing skills. Next students were split into three groups with the head teacher and two assistants and would work on varying levels of pre-reading skills. Students would then reconvene on the carpet and the whole class would participate in an activity with the head teacher, such as reading a story or learning sight words.

Dependent Variables

Behavioral Observations. Nine teacher behaviors and seven child behaviors were chosen from those listed in the Dyadic Parent-Child Interaction Coding System - Third Edition (DPICS 3rd Ed., Eyberg, et al, 2005) and the Revised Edition of the School Observation Coding System (REDSOCS, Ginn, et al, 2009) based on the relevance and intended outcomes. The teacher behaviors are defined in the previous study (Table 1). The child behaviors are defined below (Table 3).

Table 3.

Child Behaviors (DPICS- 3rd Edition and REDSOCS)	
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 (D)	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 (A)	includes fighting, kicking, slapping, hitting, pushing, shoving, grabbing an object roughly from another person, or threatening (verbally) to do any of the

	preceding.
Compliance (CO)	occurs when the child performs, begins to perform, or attempts to perform a behavior requested by the teacher within the 5-second interval following the command.
Noncompliance (NC)	is coded following a Direct or Indirect Command given the teacher when the child does not perform, attempt to perform, or stops attempting to perform the requested behavior within the 5-second interval following the command.
Answer to Questions (AN)	a verbal or nonverbal response to a question that provides or attempts to provide the information requested in the question.
No Answer to Questions (NA)	occurs when the child does not attempt to provide the information requested in the question.

Teacher and child behaviors were observed and recorded by a team of eight undergraduate and graduate psychology students. Observers spent a whole semester reviewing manuals and participated in two, two hour trainings. Observers were required to take a written test going over all of the different behaviors to not only understand the definitions but to know the specific rules. Observers had to pass the test with at least 80% accuracy to be involved in the study. Observers also practiced coding using video tapes. Due to the classrooms being in different schools and observations occurring at different times observers only observed in one classroom. All observers went into the classroom they were assigned to prior to the study so both the teachers and children habituated to their presence. When observers were in the classroom they did not interact with the teachers or children, they recorded their observations without interfering with normal classroom activities. After observers had been in the classroom children did not initiate interaction with the observers.

Observations were collected four mornings per week. Observations took place in the preschool classroom from 10:00 to 11:20am. Observations took place in the kindergarten classroom from 8:55 to 10:15am. Observations were for 80 minutes and began around the time the normal classroom activities began. Observers recorded two-minute samples of teacher and child behaviors in 10-second intervals. The observers listened to a recording signaling the intervals from an MP3 player. Teachers were observed approximately five times per day and children were observed approximately one time per day.

The schedule of observations were randomized into three schedules. Approximately 20% of the observations were used for inter-observer reliability. During reliability observations the observers used a headphone splitter and stood about one meter apart. This allowed for observers to use the same interval recording and ensured observers could not see each other's records. Observer's collected data on certain days due to their own schedules as well as the schedules of the schools. Observers would rotate between observer A and B on days there were two observers, half of the days there was one observer. An absentee schedule was also created for days observers could not take data. Observers arrived 20 minutes early to prepare their data sheets.

Multiple randomized schedules were created to ensure a random sample was collected. The number of observations was divided so each teacher was observed approximately for the same amount of time. Teachers were observed for about 5 two-minute intervals per day. The children were observed 1-2 times per day. Teachers and children were given numbers 1-26 depending on the number of observations for that day.

For example teacher A would have 1-5, teacher B would have 6-10 and then the children were given 11-26. Next a random number generator was used to fill in the 26 observations. This ensured that observers randomly observed the teachers and children during this time period.

Interobserver Reliability. Cohen's Kappa as described in the previous study was also used to calculate interobserver reliability. Reliability was calculated for the nine teacher behaviors and the seven child behaviors.

Devereux Early Childhood Assessment (DECA). Both the head preschool teacher and assistant preschool teacher filled out the Devereux Early Childhood Assessment (DECA) for each child before and after the intervention. The DECA is described in detail in the previous study above.

Devereux Student Strengths Assessment (DESSA). To assess children's social-emotional competencies the Devereux Student Strengths Assessment (DESSA) was filled out by the head kindergarten teacher for each child before and after the intervention. The DESSA is an entirely strengths based assessment. The DESSA is used as a universal screener. The DESSA contains 72 items which break into eight scales. In addition a Social-Emotional Composite score is derived which includes all eight scales (Table 4).

Table 4.

Scale	Defined
Self-Awareness	A child's realistic understanding of her/his strengths and limitations and consistent desire for self-improvement
Self-Management	A child's success in controlling his or her emotions and behaviors, to complete a task or succeed in a new or challenging situation
Social-Awareness	A child's capacity to interact with others in a way that shows respect for their ideas and behaviors, recognizes her/his impact on them, and uses cooperation and tolerance in social situations
Relationship Skills	A child's consistent performance of socially acceptable actions that promote and maintain positive connections with others.
Goal-Directed Behavior	A child's initiation of and persistence in completing, tasks of varying difficulty.

Personal Responsibility	A child's tendency to be careful and reliable in her/his actions and in contributing to group efforts.
Decision Making	A child's approach to problem solving that involves learning from others and from her/his own previous experiences, using her/his values to guide her/his action, and accepting responsibility for her/his decisions.
Optimistic Thinking	A child's attitude of confidence, hopefulness, and positive thinking regarding herself/himself and her/his life situations in the past, present, and future.

The DESSA can be completed by parents/guardians, teachers or school staff. Questions are framed as "During the past four weeks...", thus the caregiver and/or teacher must have sufficient exposure to the child in the past month. The DESSA was standardized on a sample representative of the United States population. The alpha coefficients for teacher/staff ratings are .99 for social-emotional composite, .92 for personal responsibility, .89 optimistic thinking, .93 for goal-directed behavior, .91 for social awareness, .92 for decision making, .94 for relationship skills, .89 for self-awareness and .92 for self-management. In addition the test retest reliabilities are high and range from .86 to .94 for teachers/staff. For criterion validity, the results show that the DESSA is very effective in differentiating between students with and without social, emotional, and behavioral problems (LeBuffe, Shapiro, & Nagleri, 2009).

Research Design

Both studies used a concurrent multiple baseline design to evaluate the teachers' acquisition of TCIT skills as well as the children's changes in social skills and behaviors. The design shows the effects of the intervention by demonstrating the changes in behavior concurrent with the introduction of the intervention, and not at a prior time. Collecting baseline data before the intervention, then during the intervention allows for the participant to act as its own control (Kazdin, 2011). A multiple baseline design staggers the intervention sequentially across participants, behaviors or settings. In the first study the intervention was delivered across three different behavior sets, all teachers received the same trainings at the same times. This intervention occurred over a period of three months. In the second study the intervention was delivered across the participants. Teachers received the first training approximately a week and a half apart and received the second training together. This intervention occurred over a period of one and half months.

Training. In the first study the trainings occurred with groups of teachers and were led by a clinical psychologist and assisted by a doctoral student. In the second study the trainings were with individual teachers as well as groups depending on the introduction of the treatment, these trainings were led by a doctoral student and assisted by a clinical psychologist. Both studies consisted of training skills in Child Directed Interaction (CDI) and Teacher Directed Interaction (TDI). In Lyon et al. (2009), the teachers participated in nine workshops, with each 90 minute workshop offered weekly. In Devers, Rainear, Stokes and Budd (2012) the trainings were delivered in two 3-hour

sessions, offered one month apart, combined with weekly 30 minute consultations with the teachers to focus on the current skills being addressed. In the first study the TCIT protocol was delivered in three phases, the CDI skills were broken apart into two skill sets while TDI was kept as one training. The CDI trainings were separated into two parts CDI 1 and CDI 2. The first training was two and a half hours, the second training was two hours and the third TDI training was two hours. In addition after the first training there were weekly half an hour meetings for five weeks. In the second study the TCIT protocol was delivered in two phases, the CDI phase and TDI phase. Both trainings were three hours each. Due to scheduling teachers were only able to meet individually with the coach for approximately ten minutes each week.

The CDI phases and TDI phase contain the same materials, although the CDI skills were taught in two trainings in the first study. The CDI phase began during the first workshop where teachers introduced themselves and an overview of TCIT and its components were introduced. Each teacher received a binder with the training materials for the training, including overviews and practice materials. Teachers were asked to describe difficulties in the classroom with disruptive behavior and discuss what has worked or not worked in the past. The rationale and goals of CDI were explained in discussed. The PRIDE skills were introduced, Praise, Reflection, Imitate, Describe and Enjoy! When CDI was broken up into two parts, during CDI 1 Negative Talk, Praise and Descriptions were targeted, while in CDI 2 Reflections, Thoughtful Questions and Commands were targeted. (During the second study Thoughtful questions was included as part of TDI). Teachers watched demonstrations modeling the CDI skills targeted in the training and they practiced coding the behaviors. Teachers were also asked to practice the

skills in role plays. The session ended with a homework assignment for the week to practice the new skills (appendix C). Coaching was then introduced the following week after training. Each week the teachers met with the coach, a clinical psychologist to discuss concerns and current training goals.

The second phase of TCIT includes Teacher Directed Interaction (TDI). CDI skills were reviewed and discussed at the beginning of the training. Teachers discussed coaching, development of PRIDE skills as well as any changes they observed in the classroom. The TDI skills consisted of effective command sequences as well as a “Sit and Watch” procedure. The “Sit and Watch” procedure varied across classrooms depending on the needs of the classroom, generally when children engaged in an unacceptable behavior, such as hitting, children would have to sit and watch the activity from a few feet away for a few minutes. TDI consisted of components for managing difficult behavior (Appendix C). The teachers engaged in role plays about the new concepts. Weekly homework assignments continued as well as coaching which included both CDI and TDI.

A graduation session took place at the end of the study to discuss outcomes as well as thank teachers for their participation. Teachers filled out evaluation forms as well as informally discussing their experiences in the program. The teachers discussed how helpful they found the skills as well as how the program helped with classroom management.

Coaching. Coaching was conducted by a clinical psychologist who had engaged in PCIT coaching training through the PCIT International Conference. The coach has

engaged in PCIT service delivery for seven years and has been coaching teachers in the classrooms for over 30 years. The coach had previously coached in both PCIT and TCIT by master trainers. Coaching occurred live in the classroom starting the week after the first training. The coach attended the classroom throughout the whole study so the teachers and students would habituate to his presence. Each coaching session lasted approximately 20 minutes in the first study. Coaching would include five minutes of observation, ten minutes of coaching and a few minutes of feedback. In the second study the teachers received approximately 25 minutes of coaching including five minutes of observation, fifteen minutes of coaching and a few minutes of feedback. In the first study teachers were coaching once a week for six weeks. During the second study they were coached once a week for six weeks. Coaching occurred during class time using “bug in the ear” technology to provide immediate in vivo feedback to the teachers. Depending on the activities the coach was located within different proximities from the teacher, sometimes located a yard or two away and at other times across the room, to not draw attention to him. Coaching was used to reinforce skills learned and provide additional prompts when appropriate. Coaching primarily consisted of labeled praise and higher order statements. A full description of coaching and its variables can be found in Appendix D.

The coaching occurred within the flow of the classroom consistent with previous studies (Lyon, et al., 2009). The feedback occurred when teachers were engaged in teaching activities. Thus if teachers were in activities where coaching would interfere the coach relied less on immediate feedback and discussion would follow the coaching period.

Visual Analysis

Examining behavioral data in a multiple baseline design involved examining graphs through visual inspection. Parsonson and Baer (1992) outlined several criteria for visual analysis of graphical data. There are three general principles Parsonson and Baer (1992) outlines. The first principle is to look for potential controlling variables in baseline including looking at the variability. The second principle is to understand the data pattern including looking for patterns and types of trends, essentially trying to understand the effect of the target behaviors. The third principle is to evaluate the effect of the replication including looking for similarities or differences in the data pattern of the replication. In making a fine-grained visual analysis there are six major characteristics (Parsonson, 1972).

1. Changes in level within and between phases
2. Changes in trend within and between phases
3. Changes in variability or stability in the data path within and between phases
4. Patterns or sequences in the data within and between phases
5. Range and overlap of scores or data points between phases
6. Number of data points in a phase (are there enough to know what is happening in terms of trend, variability, etc.)

Using Parsonson's (2003) fine-grained visual analysis as a guide allows the research to be brought into a close relationship with the data and led to examine the factors which are responsible for the trends and patterns.

Data were entered into a database with no identifying information and was stored on the N Drive. The N drive is a secure JMU drive that is only accessible to those who have permission and must log on using their student ID information as well as enter data on specific computers equipped with N drive access. After data were entered into the data

bases the data were aggregated by child or teacher data. 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. For each teacher and child behavior with adequate kappa values the graphs depict changes in behavior based on observational data.

Results

Study 1

Interobserver agreement

Interobserver agreement was obtained for all teacher behaviors across the length of the study. Approximately 20% of all data collected included interobserver reliability. Kappa was calculated for each of the nine teacher behaviors (listed below in table 5). The interobserver agreement for this study can be considered moderate.

Table 5.

Interobserver Reliability for Teacher Behavior

Teacher Behavior	Kappa
PRIDE Skills (LP, UP, BD and RF)	.628
Labeled Praise (LP)	.596
Unlabeled Praise (UP)	.496
Behavior Description (BD)	.475
Reflection (RF)	.531
Positive Touch (PTO)	.413
Direct Command (DC)	.535
Indirect Command (IC)	.365
Negative Talk (NTA)	.516
Question (QU)	.566
Mean (Does not include PRIDE Skills)	.499

Visual Analysis

For each teacher behavior there is a corresponding graph showing the observational data. The data is calculated by percentage of 10-second intervals within which the behavior was coded. Results are aggregate of

the three teachers involved in this study. This section includes figures that focus on the teachers' acquisition and reduction of certain behaviors. Teachers were observed on nine behaviors throughout the duration of the study. All nine behaviors had moderate kappa levels, indicating all behaviors can be observed through visual analysis.

Experimental Control

In order to create a multiple baseline design across behavior sets, intervention must occur with different behaviors at different times (Figure 1). In the top graph at the intervention point, the behavior to decrease was Negative Talk. This behavior stays relatively low throughout the intervention. The behaviors to increase are Labeled Praise, Unlabeled Praise, Behavior Descriptions and Positive Touch, which are shown cumulatively. These behaviors show increases after intervention. In the bottom graph at the second intervention point, the behaviors to decrease are Questions, Direct Commands and Indirect Commands. These behaviors show decreases after intervention. The behavior to increase is Reflections. After this intervention there was not much of a change with Reflections.

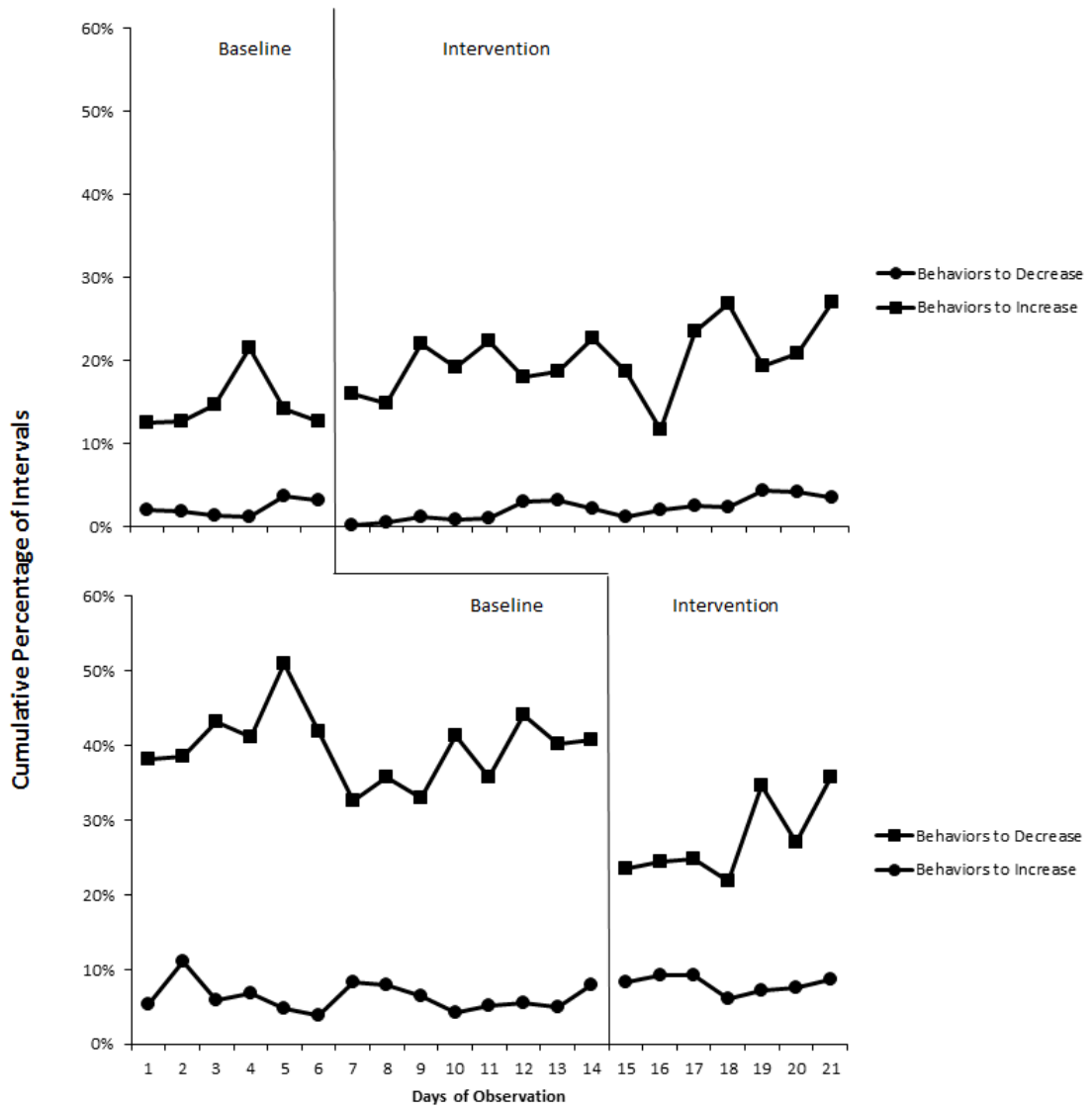


Figure 1. Experimental Control Graph

Pride Skills

The average data across the three teachers indicated there was already a degree of positive attention skills being demonstrated by the teachers during the baseline phases of the study (Figure 2). In the baseline condition, use of PRIDE Skills occurred in an average of 4.17% of intervals. Teachers then demonstrated increased rates of positive attention skills across each intervention phase. During CDI 1 the PRIDE Skills occurred in an average of 5.60% of intervals. During CDI 2 the PRIDE Skills occurred in an average of 6.37% of intervals. During TDI these levels increased and occurred an average of 7.32% of intervals.

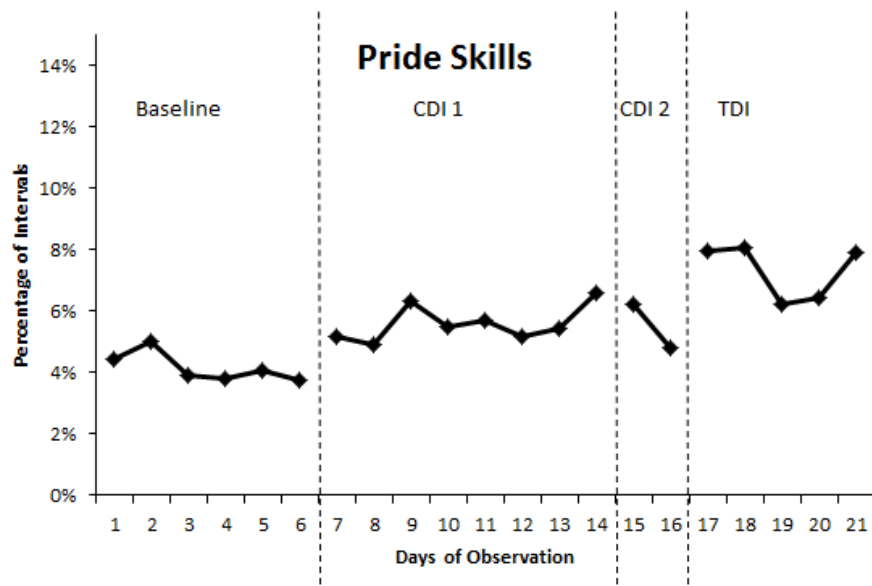


Figure 2. *Pride Skills*

Table 6.

Average Pride Skills Per Condition

Baseline	4.17%
CDI 1	5.60%
CDI 2	6.37%
TDI	7.32%

CDI 1

Each individual PRIDE Skill was also evaluated throughout the intervention. Data will be presented in the order in which it was intervened. During CDI1 skills that were targeted included Negative Talk, Labeled Praise, Unlabeled Praise, Behavior Descriptions and Positive Touch. Negative Talk in the baseline phase of the study was already occurring at a low rate (Figure 3). In the baseline condition, use of Negative Talk occurred in an average of 2.22% of intervals. Teachers then demonstrated decreased rates of negative talk after intervention. During CDI 1 Negative Talk occurred in an average of 1.52% of intervals. During CDI 2 Negative Talk maintained at an average of 1.60% of intervals. During TDI these levels increased slightly and occurred an average of 3.37% of intervals.

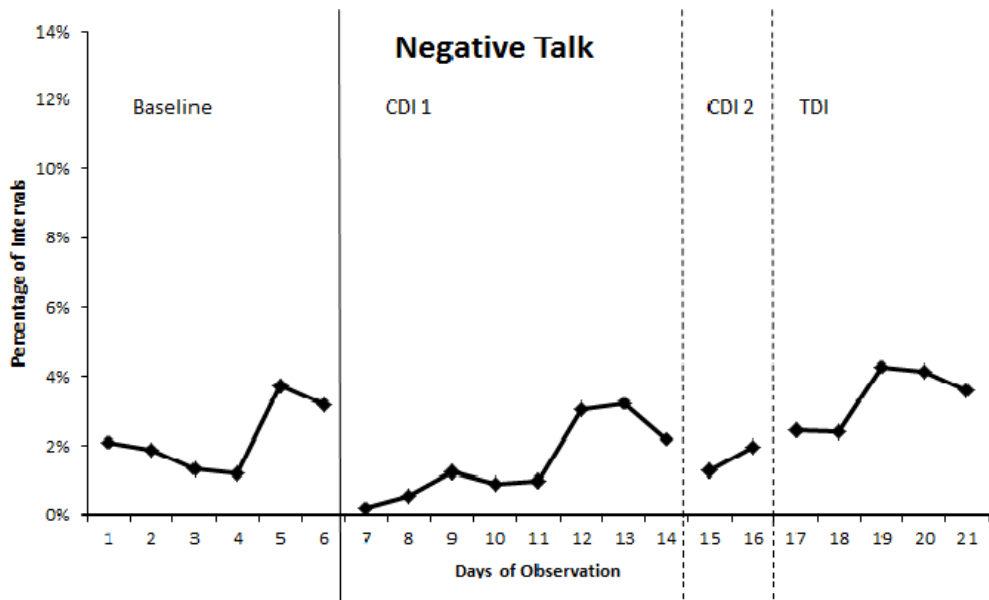


Figure 3. Negative Talk

Table 7.

Negative Talk Per Condition

Baseline	2.22%
CDI 1	1.52%
CDI 2	1.60%
TDI	3.37%

Labeled Praise in the baseline phase of the study was occurring infrequently (Figure 4). In the baseline condition, use of Labeled Praise occurred in an average of 1.18% of intervals. During CDI 1, after intervention, Labeled Praise increased and occurred in an average of 5.57% of intervals. During CDI 2 Labeled Praise occurred in an average of 4.88% of intervals. During TDI these levels maintained and occurred an average of 4.70% of intervals. During CDI 2 and TDI rates of Labeled Praise continued to be higher than baseline and were maintained across both interventions.

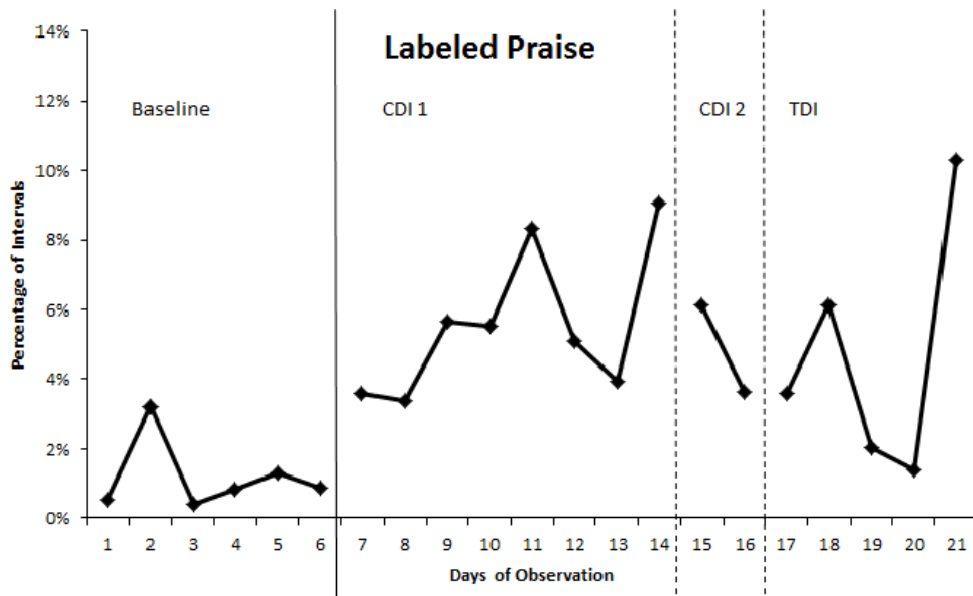


Figure 4. Labeled Praise

Table 8. Labeled Praise Per Condition

Baseline	1.18%
CDI 1	5.57%
CDI 2	4.88%
TDI	4.70%

Unlabeled Praise in the baseline phase of the study already was occurring at a high rate (Figure 5). In the baseline condition, use of Labeled Praise occurred in an average of 8.02% of intervals. During CDI 1, after intervention, Unlabeled Praise increased and occurred in an average of 8.77% of intervals. During CDI 2 Labeled Praise occurred in an average of 4.64% of intervals. During TDI these levels increased and occurred an average of 10.98% of intervals. Unlabeled Praise remained similar between Baseline and CDI 1 and decreased during CDI 2. Rates on average during TDI were above Baseline conditions.

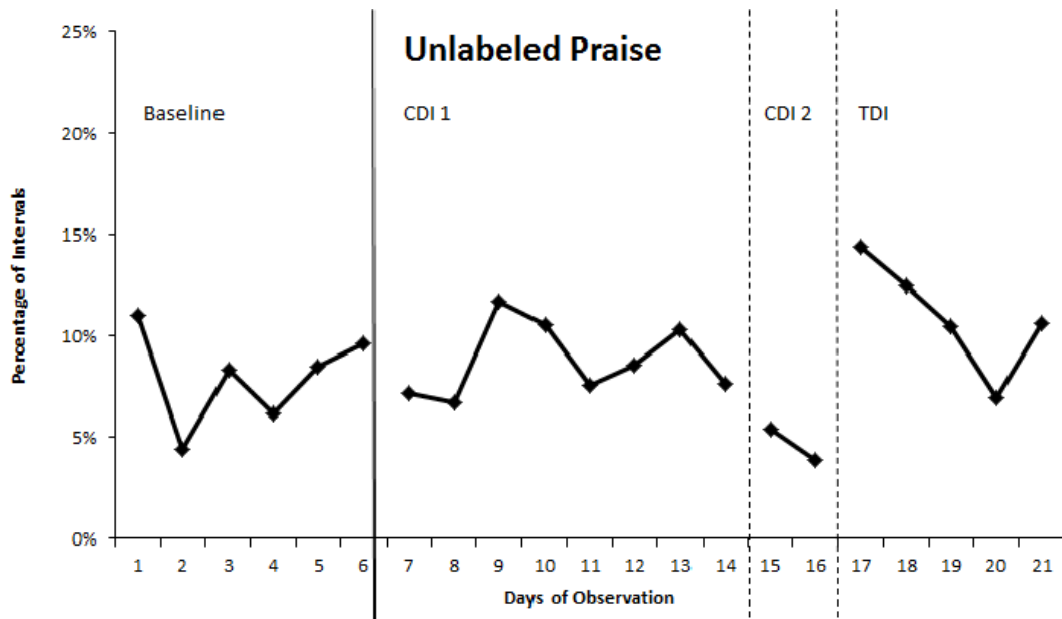


Figure 5. Unlabeled Praise

Table 9.
Unlabeled Praise Per Condition

Baseline	8.02%
CDI 1	8.77%
CDI 2	4.64%
TDI	10.98%

Behavior Descriptions in the baseline phase of the study occurred at an infrequent rate (Figure 6). In the baseline condition, use of Behavior Descriptions occurred in an average of 1.17% of intervals. During CDI 1, after intervention, Behavior Descriptions increased slightly and occurred in an average 1.80% of intervals. During CDI 2 Behavior Descriptions occurred in an average of 3.76% of intervals. During TDI these levels increased and occurred an average of 5.83% of intervals. Behavior Descriptions increased after intervention, but continued to increase throughout the duration of intervention.

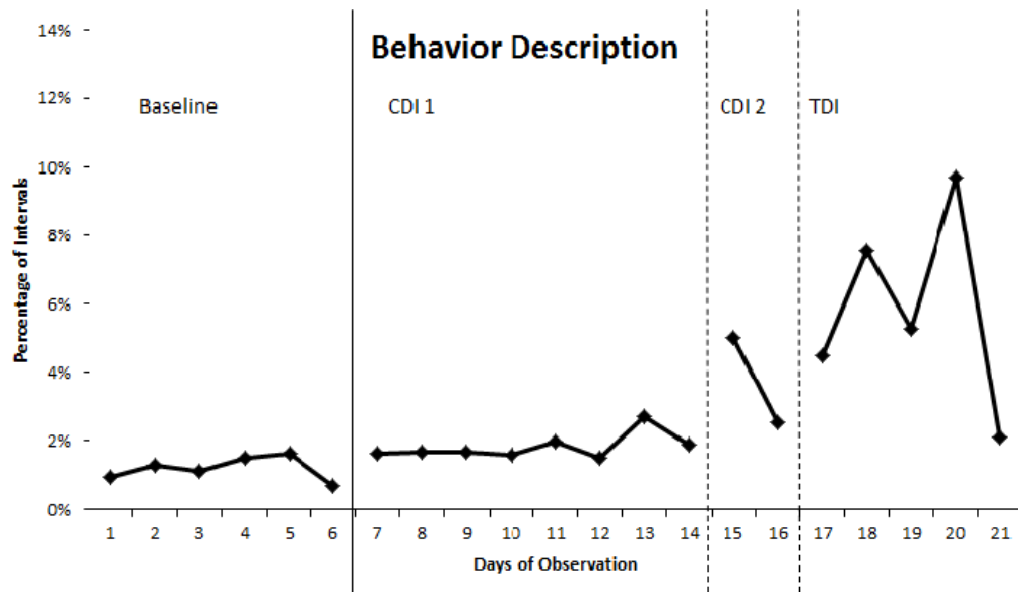


Figure 6. Behavior Description

Table 10.
Behavior Description Per Condition

Baseline	1.17%
CDI 1	1.80%
CDI 2	3.76%
TDI	5.83%

Positive Touch in the baseline phase of the study occurred at a moderate rate (Figure 7). In the baseline condition, use of Positive Touch occurred in an average of 4.35% of intervals. During CDI 1, after intervention (Not a PRIDE Skill target behavior), Positive Touch decreased slightly and occurred in an average 3.09% of intervals. During CDI 2 Positive Touch occurred in an average of 1.95% of intervals. During TDI these levels remained the same as CDI 2 occurred an average of 1.99% of intervals.

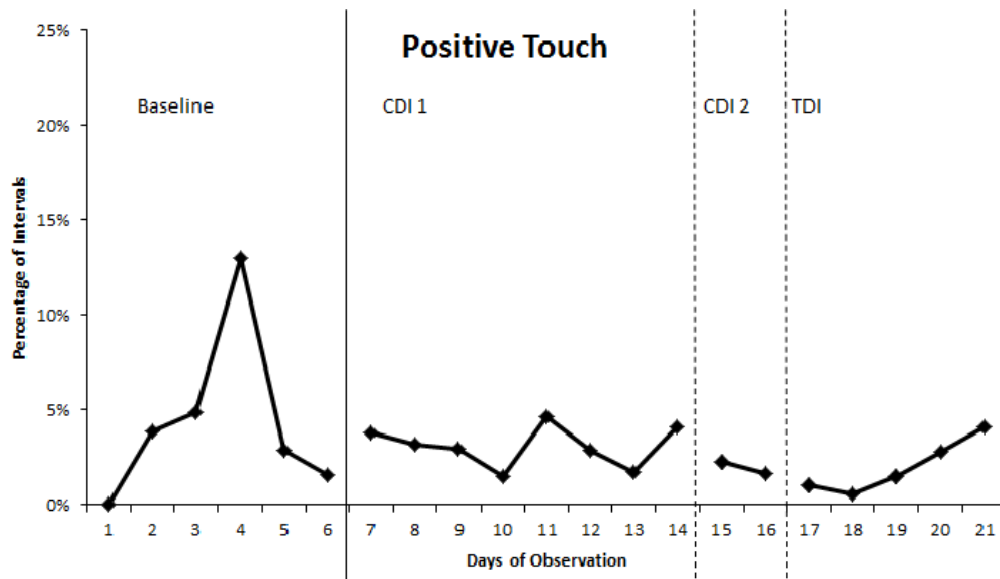


Figure 7. Positive Touch Figure

Table 11.
Positive Touch Per Condition

Baseline	4.35%
CDI 1	3.09%
CDI 2	1.95%
TDI	1.99%

CDI 2

During CDI 2 skills that were targeted included Reflections, Questions and Direct Commands and Indirect Commands. Reflections in the baseline phase of the study occurred at a moderate rate (Figure 8). In the baseline condition, use of Reflections occurred in an average of 6.32% of intervals. During CDI 1, Reflections remained the same and occurred in an average 6.28% of intervals. During CDI 2, intervention, Reflections increased and occurred in an average of 8.72% of intervals. During TDI these levels decreased slightly but were higher than baseline rates, rates occurred in an average of 7.79% of intervals.

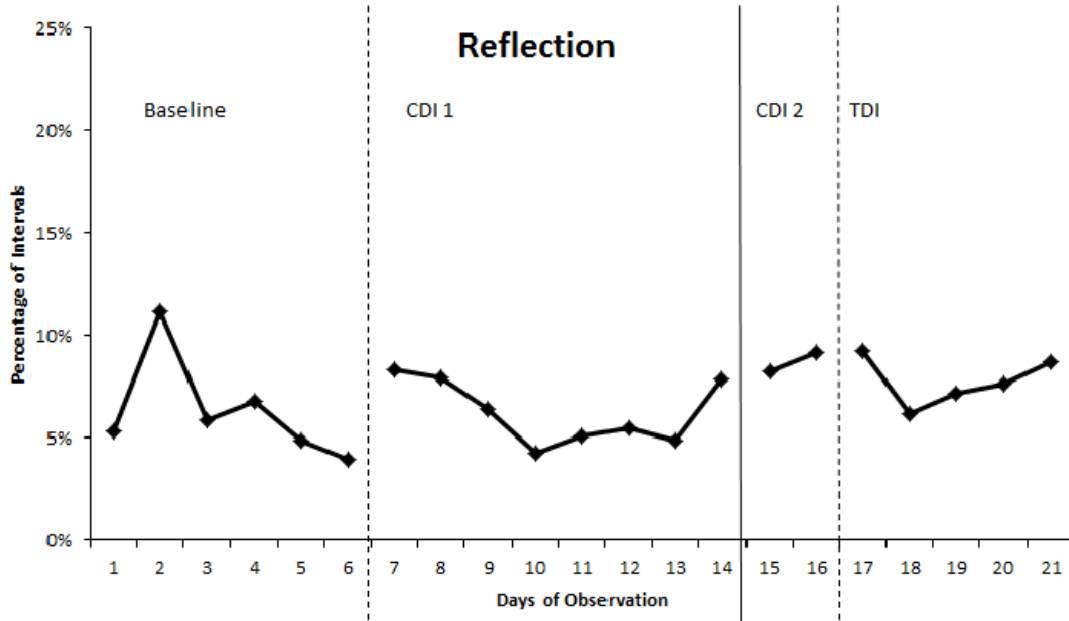


Figure 8. Reflection Figure

Table 12.
Reflection Per Condition

Baseline	6.32%
CDI 1	6.28%
CDI 2	8.72%
TDI	7.79%

Questions in the baseline phase of the study occurred at a high rate (Figure 9). In the baseline condition, use of Questions occurred in an average of 18.92% of intervals. During CDI 1, Questions slightly decreased and occurred in an average 16.73% of intervals. During CDI 2, intervention, Questions decreased and occurred in an average of 11.15% of intervals. During TDI these levels decreased slightly and occurred in an average of 10.75% of intervals.

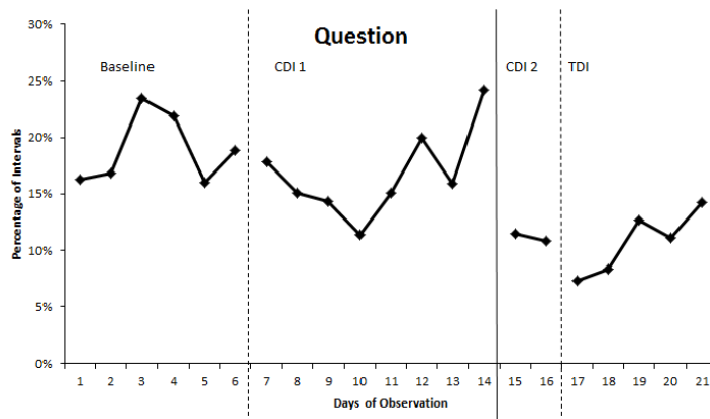


Figure 9. Question Figure

Table 13.
Question Per Condition

Baseline	18.92%
CDI 1	16.73%
CDI 2	11.15%
TDI	10.75%

Direct Commands in the baseline phase of the study occurred at a high rate (Figure 10). In the baseline condition, use of Direct Commands occurred in an average of 12.35% of intervals. During CDI 1, Direct Commands remained the same and occurred in an average 12.36% of intervals. During CDI 2, intervention, Direct Commands decreased and occurred in an average of 8.30% of intervals. During TDI these levels increased and occurred in an average of 12.22% of intervals.

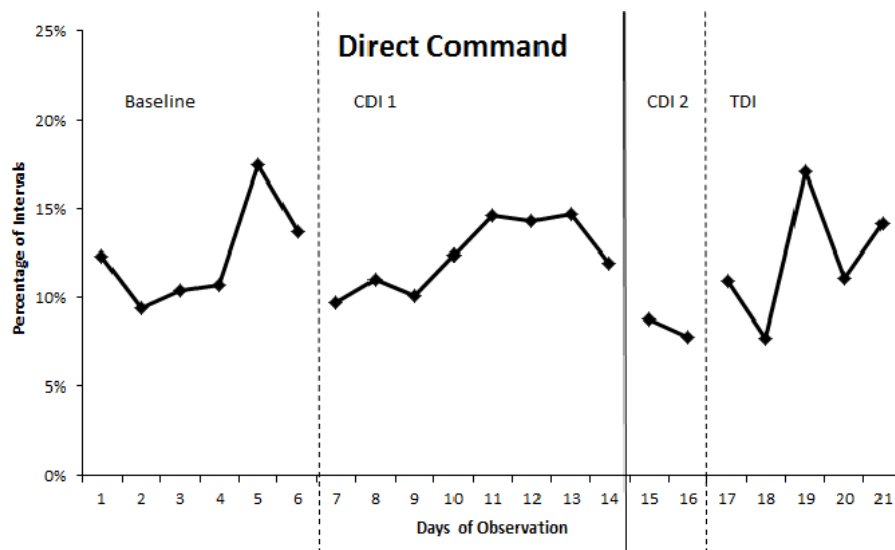


Figure 10. Direct Command Figure

Table 14.
Direct Command Per Condition

Baseline	12.35%
CDI 1	12.36%
CDI 2	8.30%
TDI	12.22%

Indirect Commands in the baseline phase of the study occurred at a moderate rate (Figure 11). In the baseline condition, use of Indirect Commands occurred in an average of 11.05% of intervals. During CDI 1, Indirect Commands decreased and occurred in an average 8.83% of intervals. During CDI 2, intervention, Indirect Commands decreased and occurred in an average of 4.51% of intervals. During TDI these levels increased slightly and occurred in an average of 5.86% of intervals.

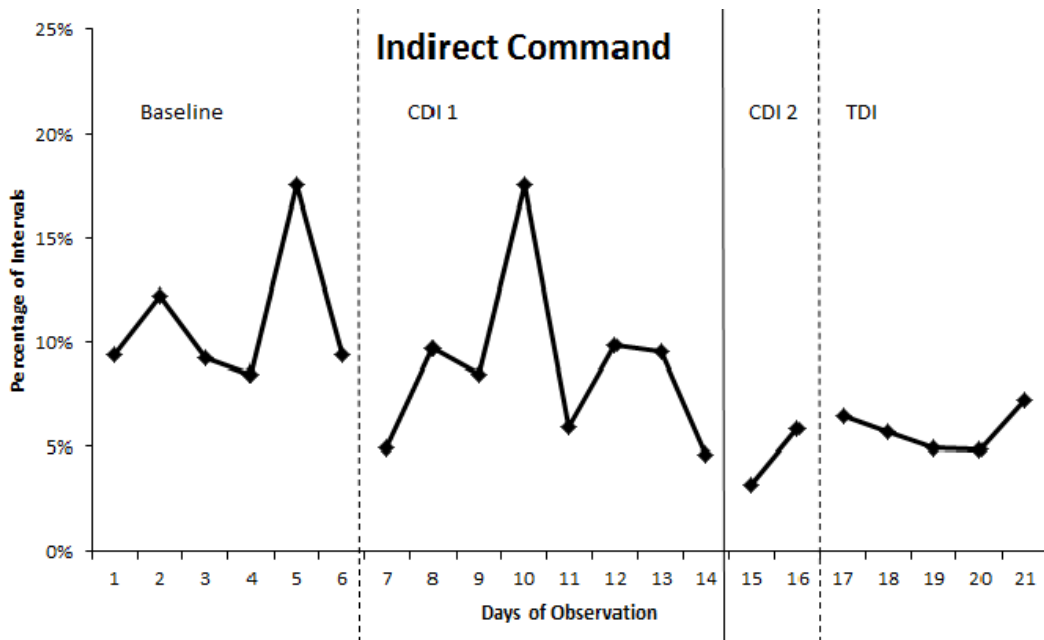


Figure 11. Indirect Command Figure

Table 15.
Indirect Command Per Condition

Baseline	11.05%
CDI 1	8.83%
CDI 2	4.51%
TDI	5.86%

Additionally, when comparing direct to indirect commands there was an increase in the percent of intervals direct commands occurred, with a decrease in the percent of intervals indirect commands occurred. During baseline rates of direct commands to all commands was 52.78%. During CDI 1 rates of direct commands to all commands was 58.33%. During CDI 2 rates of direct commands to all commands was 64.79%. During TDI rates of direct commands to all commands was 67.59%.

Table 16.
Rate of Direct Commands to All Commands Per Condition

Baseline	52.78%
CDI 1	58.33%
CDI 2	64.79%
TDI	67.59%

Devereux Early Childhood Assessment (DECA)

The DECA ratings of each child were analyzed through two-way repeated measure factorial ANOVA. This research design is used when a subject, the child, is measured two or more times on the dependent variable. The subjects are used as their own control (Vogt, 1999). Additionally, repeated measure t-test was ran to further understand the changes. Ratings for both head and assistant teachers were analyzed for Total Protective Factors (TPF) and Behavior Concerns (BC).

For the total protective factors, the results of the repeated measures factorial ANOVA indicated that there was a significant main effect of teacher type on TPF scores, $F(1, 34) = 9.086, p = .005, \text{partial } \eta^2 = .211$. This means that type of teacher (head or assistant) had a significant effect on TPF scores. There was no significant main effect of time (pretest to posttest) on TPF scores, $F(1, 34) = 0.965, p = .333, \text{partial } \eta^2 = .028$. There was a significant interaction effect between type of teacher and time on TPF scores, $F(1,34) = 11.362, p = .002, \text{partial } \eta^2 = .250$. Thus, we can say that the effect of type of teacher on TPF scores depends on the time spent in the intervention. Due to the interaction effect, these results indicate that the effect of time, on the scores depends primarily on the type of teacher filling out the forms.

To look further at the changes for head teacher and assistant teachers for total protective factors, repeated measures t-test was ran to compare head teacher pretest scores to head teacher posttest scores, as well as assistant teacher pretest scores to assistant teacher posttest scores. The head teachers' posttest scores ($M=52.63, SD=7.207$)

were significantly higher than pretest scores ($M=49.06$, $SD=9.165$), $t(34) = -3.571$, $p = .003$. The correlation coefficient, $r = .23$, represents a moderate effect size. The assistant teacher's pretest scores ($M=57.23$, $SD=10.866$) did not differ significantly from the posttest scores ($M=55.29$, $SD=10.159$), $t(34) = 1.943$, $p = .115$.

For behavior concerns, the results of the repeated measures factorial ANOVA indicated that there was not a significant main effect of teacher type (head or assistant) on BC scores, $F(1, 34) = 0.006$, $p = .938$, partial $\eta^2 = .000$. This means that type of teacher (head or assistant) did not have a significant effect on BC scores. There was also no significant main effect of time (pretest to posttest) on BC scores $F(1, 34) = 0.814$, $p = .373$, partial $\eta^2 = .023$. That is, if we collapse across teacher type there was not a significant difference. There was a significant interaction effect between type of teacher and time on BC scores, $F(1,34) = 5.21$, $p = .029$, partial $\eta^2 = .133$. Thus, we can say that the effect of type of teacher on BC scores depends on the time spent in the intervention. These results indicate that the effect of time, on the scores depends primarily on the type of teacher filling out the forms.

To look further at the changes for head teacher and assistant teachers for behavior concerns, repeated measures t-test was ran to compare head teacher pretest scores to head teacher posttest scores, as well as assistant teacher pretest scores to assistant teacher posttest scores. The head teacher's pretest scores ($M=49.86$, $SD=9.696$) did not differ significantly from the posttest scores ($M=47.46$, $SD=9.124$), $t(34) = 2.171$, $p = .037$. The assistant teacher's pretest scores ($M=48.37$, $SD=13.831$) did not differ significantly from the posttest scores ($M=49.34$, $SD=14.322$), $t(34) = -.917$, $p = .366$.

Head Teacher Data on Children At Risk by Classroom

In the first classroom pre- and post-data were collected for 18 students. Data reported includes those children who are considered in the below average range for total protective factors, or in the above average range for behavior concerns. On each graph there is a line indicating where these points begin.

Total Protective Factors

Three individual children’s data are presented below (figure x), at the pretest point all of the scores were in the below average range. After intervention scores of two children were in the average range, while one stayed in the below average range. Before intervention 16.67% of children in the classroom scored in the below average range, after intervention only 5.56% of children in the classroom scored in the below average range.

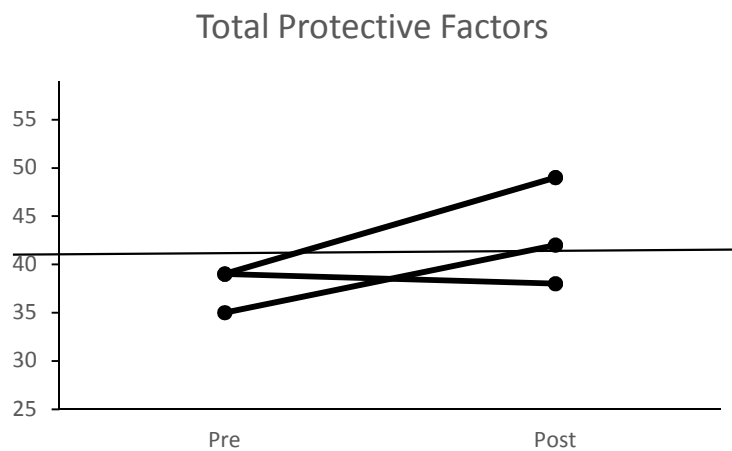


Figure 12. Total Protective Factors by Child

Behavior Concerns

Six individual children’s data is presented below, at the pretest point all of the scores were in the above average range. After intervention scores of one child were in the average range, while five remained in the above average range. Before intervention 33.33% of children in the classroom scored in the above average range, after intervention 27.78% of children in the classroom scored in the above average range.

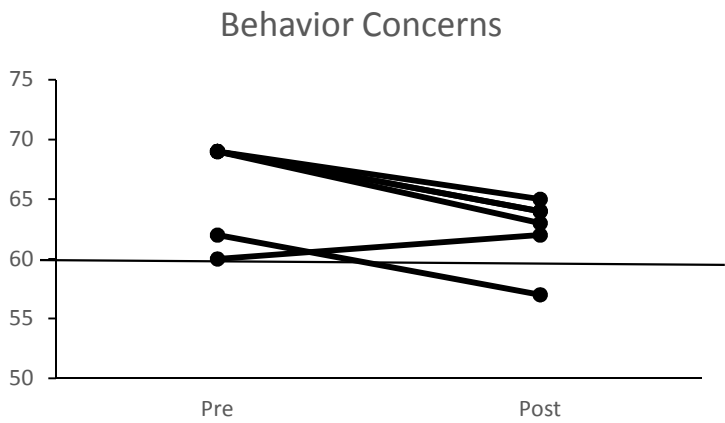


Figure 13. Behavior Concerns by Child

In the second classroom pre and post data were collected for 17 students. Data reported includes those children who are considered in the below average range for total protective factors, or in the above average range for behavior concerns. On each graph there is a line indicating where these points begin.

Total Protective Factors

Two individual children's data are presented below, at the pretest point both scores were in the below average range. After intervention scores of both children were in the average range. Before intervention 11.76% of children in the classroom scored in the below average range, after intervention 0% of children in the classroom scored in the below average range.

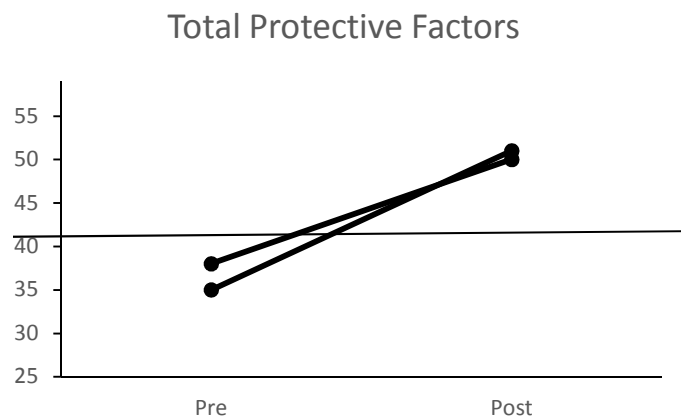


Figure 14. Total Protective Factors by Child

Behavior Concerns

One child's data is presented below, at the pretest point this was the only child in the above average range. After intervention scores of this child's were in the average range. Before intervention 5.88% of children in the classroom scored in the above average range, after intervention 0% of children in the classroom scored in the above average range.

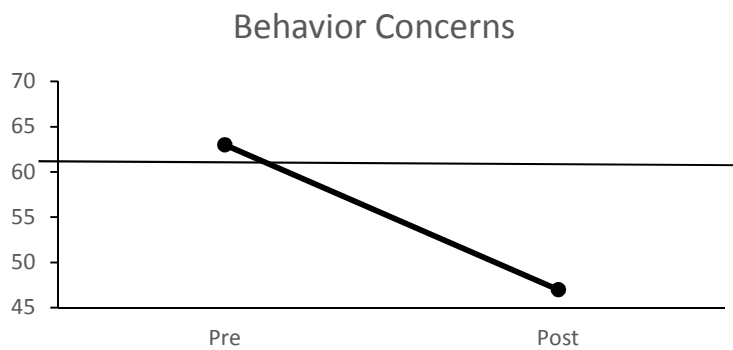


Figure 15. Behavior Concerns by Child

Study 2

Interobserver agreement Interobserver agreement was obtained for all teacher behaviors and child behaviors across the length of the study. Approximately 20% of all data collected included interobserver reliability. Cohen's kappa was calculated for each of the nine teacher behaviors (listed below in Table 17) and each of the seven child behaviors (listed below is Table 18). For the teacher behaviors overall rates of kappa are considered substantial. Direct commands and behavior descriptions are the only categories with moderate kappas. For the child behaviors overall the kappas are considered substantial. Although for commands-compliance and question-answer these

Teacher Behavior	Kappa
Pride Skills (LP, UP,BD, RF)	0.739
Labeled Praise (LP)	0.713
Unlabeled Praise (UP)	0.699
Behavior Description (BD)	0.451
Reflection (RF)	0.685

rates are in the moderate range. One item that should be viewed cautiously is the command-noncompliance due to only being in the fair range.

Positive Touch (PTO)	0.567	Table 17. <i>Interobserver Reliability for Teacher Behaviors</i>
Direct Command (DC)	0.499	
Indirect Command (IC)	0.647	
Negative Talk (NTA)	1.00	
Question (QU)	0.738	
Mean (Does not include PRIDE Skills)	0.666	

Child Behavior	Kappa	Table 18. <i>Interobserver Reliability for Child Behaviors</i>
Command-Compliance (CO-CO)	0.490	
Command-Noncompliance(CO-NC)	0.360	
Question-Answer (Q-A)	0.658	
Question-No Answer (Q-NA)	0.547	
Destructive (Y)	1.00	
Aggressive (A)	1.00	
Yelling (Y)	1.00	
Mean	0.722	

Visual Analysis

For each teacher and child behavior there is a corresponding graph showing the observational data. The data were calculated by percentage of 10-second intervals within which the behavior was coded. Results showed a multiple baseline design across classrooms. This section includes figures that focus on the teachers' acquisition and reduction of certain behaviors, as well as observational child data. Teachers were observed on nine behaviors throughout the duration of the study. All nine behaviors had at least moderate kappa levels, indicating all behaviors can be observed through visual analysis. Children were observed on seven behaviors throughout the duration of the study. Five behaviors had at least moderate kappa levels, indicating these behaviors can be observed through visual analysis. For command noncompliance these rates were in the fair range and should be interpreted with caution.

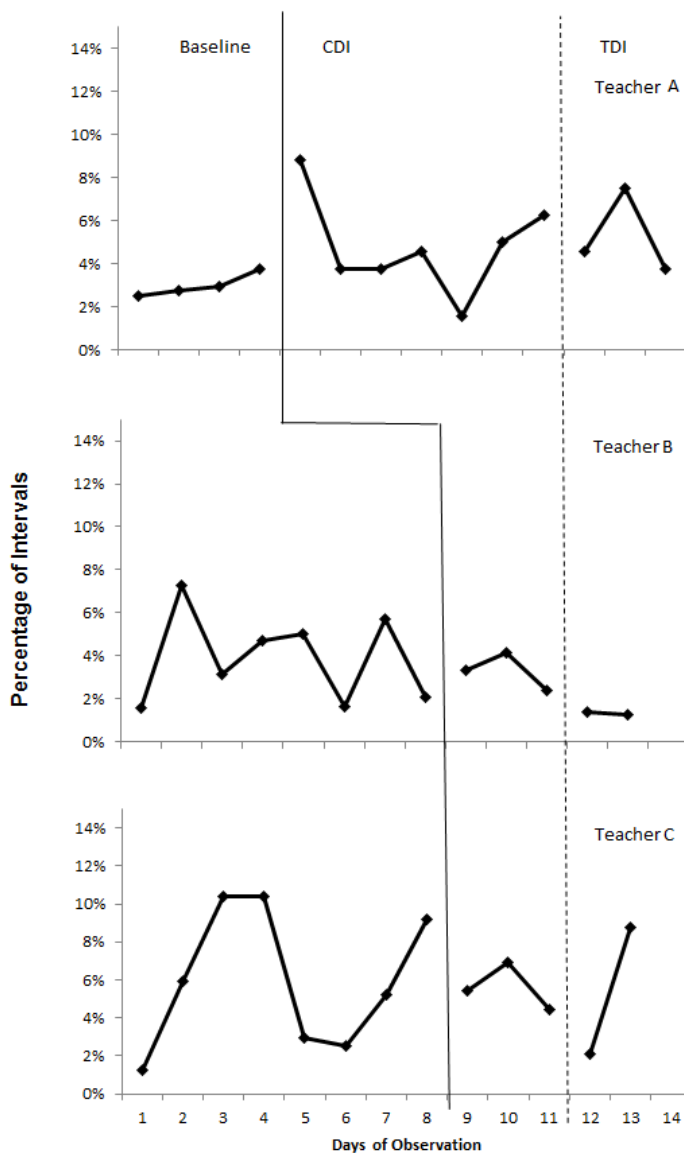
CDI Intervention

Each teacher's data is shown individually. In the Kindergarten classroom there was one teacher, Teacher A. In the Preschool classroom there were two teachers. The assistant teacher is Teacher B and the head teacher is Teacher C. The CDI Intervention occurred at different times for each classroom. All direct intervention occurred after the introduction of CDI.

Pride Skills

The average data across the three teachers indicated there was already a degree of positive attention skills being demonstrated by the teachers during the baseline phases of

the study (Figure 16). For teacher A in the baseline condition, use of PRIDE Skills occurred in an average of 2.99% of intervals. There were increased rates of positive attention skills across each intervention phases. During CDI the PRIDE Skills occurred in an average of 4.58% of intervals. During TDI these levels increased and occurred an average of 6.11% of intervals. For teacher B in the baseline condition, use of PRIDE Skills occurred in an average of 3.89% of intervals. There was a slight decrease in rates of positive attention skills across each intervention phases. During CDI the PRIDE Skills occurred in an average of 3.29% of intervals. During TDI these levels decreased and occurred an average of 1.32% of intervals. For teacher C in the baseline condition, use of



PRIDE Skills occurred an average of 5.97% of intervals. During CDI the PRIDE Skills occurred in an average of 5.61% of intervals. During TDI rates stayed relatively the same and occurred in an average of 5.42% of intervals.

*Figure 16. PRIDE Skills Figure*Table 19.
Pride Skills Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	2.99%	3.89%	5.97%
CDI	4.58%	3.29%	5.61%
TDI	6.11%	1.32%	5.42%

Overall average rates for Negative Talk were already at low levels for all three teachers (Figure 17). For Teacher A during baseline her average rates were 1.25% of intervals, during CDI her average rates decreased to 0.28% of intervals, during TDI rates remained low at 0.83% of intervals. For Teachers B and C there were overall decreasing

*Figure 17. Negative Talk Figure*Table 20.
Negative Talk Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	1.25%	0.00%	0.26%
CDI	0.28%	1.59%	0.00%
TDI	0.83%	0.00%	0.00%

Direct Commands occurred at moderate rates for Teacher A and B, and low rates for Teacher C (Figure 18). For Teacher A during baseline her average rates were 12.92% of intervals, during CDI her average rates decreased to 10.49% of intervals, during TDI rates increased to higher than baseline rates to 15.83% of intervals. For Teacher B during baseline her average rates were 11.08% of intervals, during CDI her average rates decreased to 4.66% of intervals, during TDI rates increased but still remained lower than baseline rates to 7.50% of intervals. For Teacher C during baseline her average rates were 3.65% of intervals, during CDI her average rates decreased to 0.95% of intervals, during TDI her rates increased to 3.61% of intervals, similar to her baseline rates.

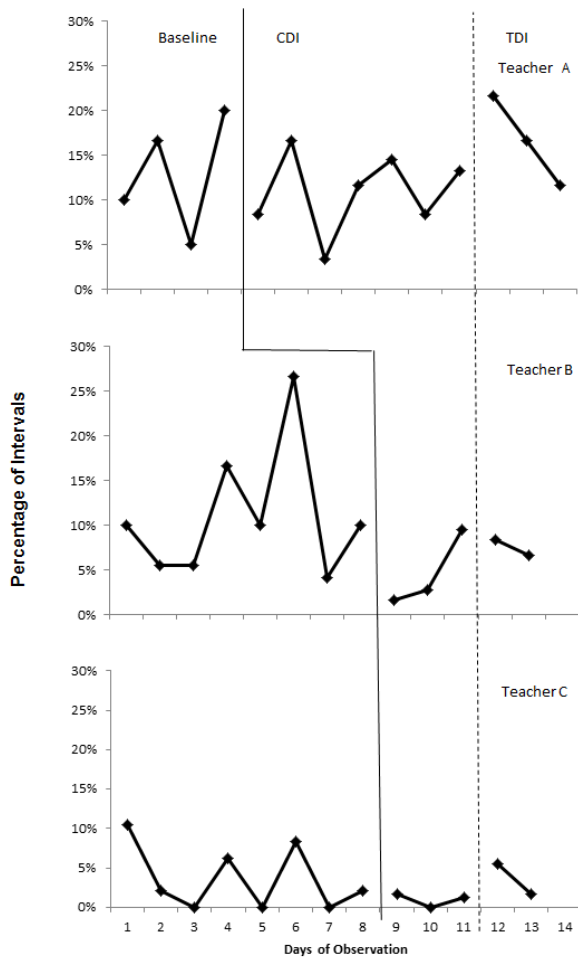


Figure 18. Direct Command

Table 21.
Direct Command Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	12.92%	11.08%	3.65%
CDI	10.49%	4.66%	0.95%
TDI	15.83%	7.50%	3.61%

Indirect Commands occurred at moderate rates for Teacher A and B, and low rates for Teacher C (Figure 19). For Teacher A during baseline her average rates were 16.11% of intervals, during CDI her average rates decreased to 11.04% of intervals, during TDI rates increased but remained lower than baseline rates to 15.42% of intervals. For Teacher B during baseline her average rates were 12.10% of intervals, during CDI her average rates decreased to 10.19% of intervals, during TDI rates increased above baseline rates to 15.28% of intervals. For Teacher C, during baseline her average rates were 6.93% of intervals, during CDI her average rates decreased to 1.90% of intervals, during TDI her rates increased to higher than baseline rates to 9.61% of interval.

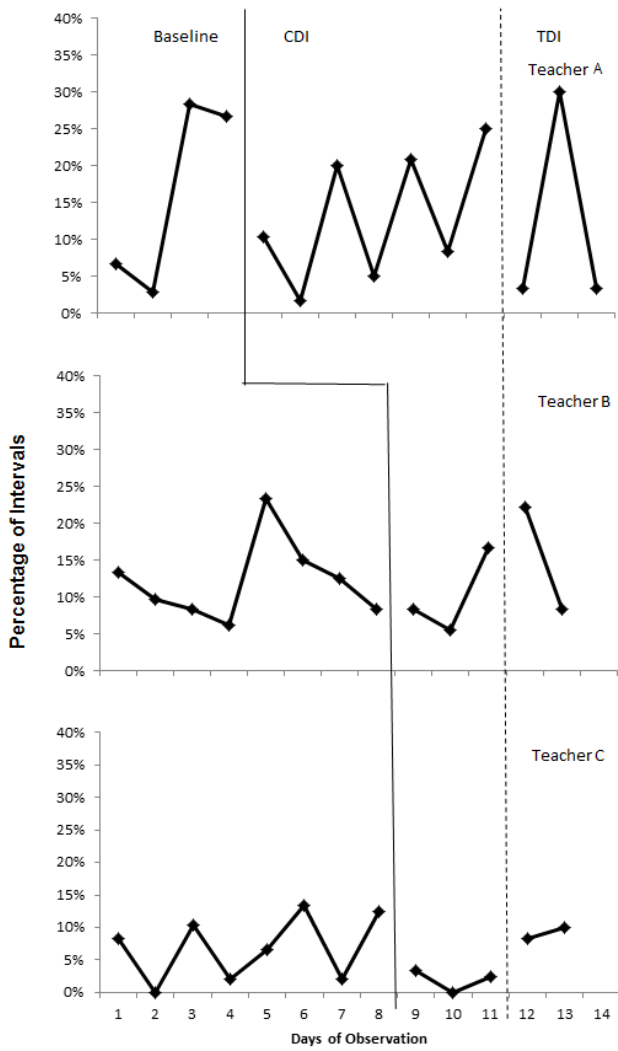


Figure 19. Indirect Command

Table 22. Indirect Command Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	16.11%	12.10 %	6.93%
CDI	11.04%	10.19%	1.90%
TDI	15.42%	15.28%	9.17%

When comparing direct to indirect commands there was an increase in the percent of intervals direct commands occurred, with a decrease in the percent of intervals indirect commands occurred for teacher A, the opposite trend occurred for teacher B and C. For teacher A, during baseline rates of direct commands to all commands was 44.50%. During CDI rates of direct commands to all commands was 48.72%. During TDI rates of direct commands to all commands was 50.66%. For teacher B, during baseline rates of direct commands to all commands was 47.80%. During CDI rates of direct commands to all commands was 31.38%. During TDI rates of direct commands to all commands was 32.92%. For teacher C, during baseline rates of direct commands to all commands was 34.50%. During CDI rates of direct commands to all commands was 33.33%. During TDI rates of direct commands to all commands was 28.25%.

Table 23.
Rate of Direct Commands to All Commands Per Condition

Phase	Teacher A	Teacher B	Teacher C
--------------	------------------	------------------	------------------

Baseline	44.50%	47.80%	34.50%
CDI	48.72%	31.38%	33.33%
TDI	50.66%	32.92%	28.25%

Labeled Praise occurred at varying rates for Teacher A, B and C (Figure 20). For Teacher A during baseline her average rates were 3.75% of intervals, during CDI her average rates increased to 6.46% of intervals, during TDI rates further increased to 7.92% of intervals. For Teacher B during baseline her average rates were 6.32% of intervals, during CDI her average rates slightly decreased to 6.22% of intervals, during TDI rates increased above baseline rates to 7.50% of intervals. For Teacher C, during baseline her average rates were 2.29% of intervals, during CDI her average rates decreased to 2.06% of intervals, during TDI her rates decreased to 0.83% of intervals.

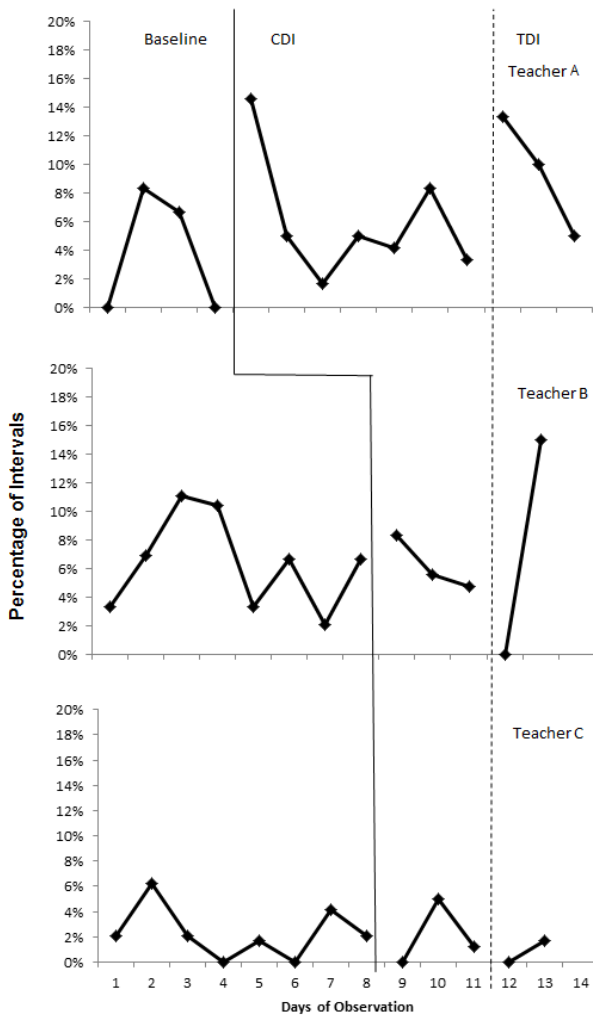


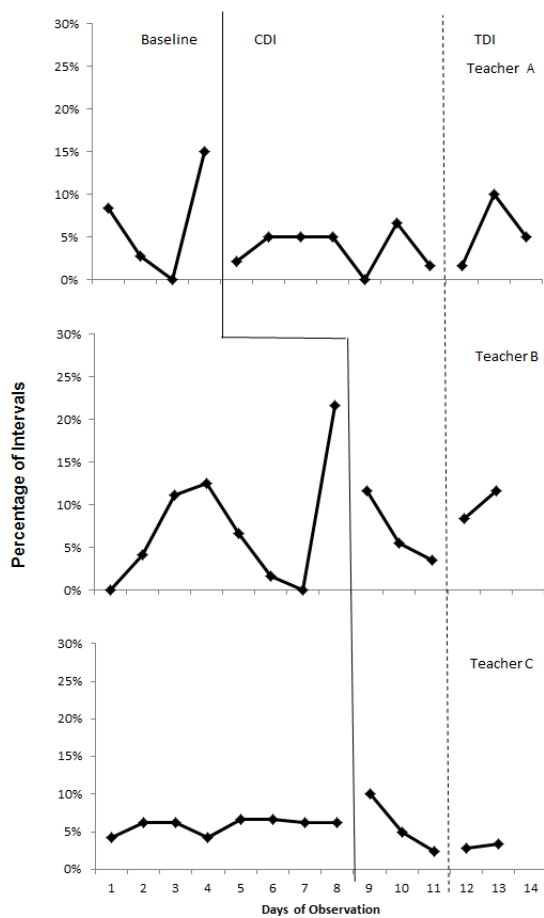
Figure 20. Labeled Praise Figure

Table 24.

Labeled Praise Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	3.75%	6.32 %	2.29%
CDI	6.46%	6.22%	2.06%
TDI	7.92%	7.50%	0.83%

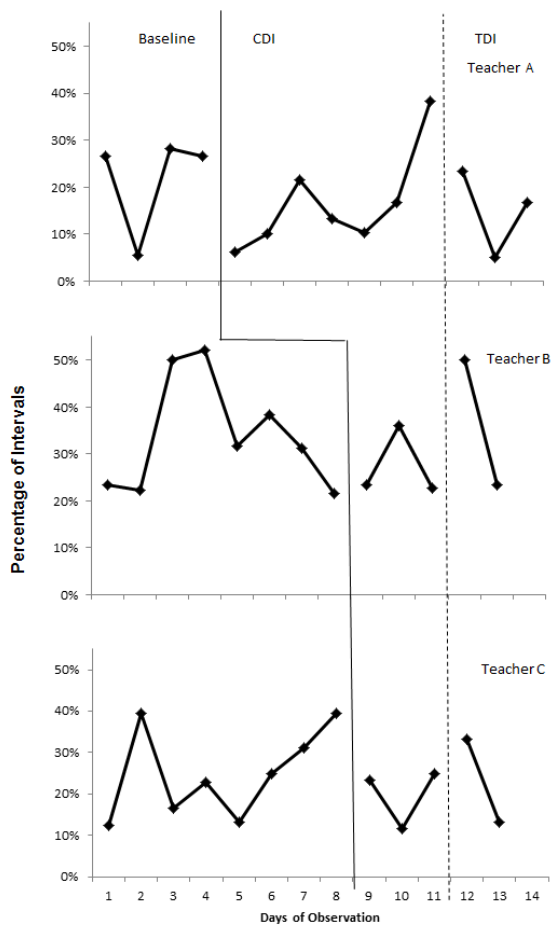
Unlabeled Praise occurred at varying rates for Teacher A, B and C (Figure 21). For Teacher A during baseline her average rates were 6.53% of intervals, during CDI her average rates decreased to 3.96% of intervals, during TDI rates increased slightly to 4.58% of intervals. For Teacher B during baseline her average rates were 7.22% of intervals, during CDI her average rates slightly decreased to 6.93% of intervals, during TDI rates increased above baseline rates to 10.00% of intervals. For Teacher C, during baseline her average rates were 5.83% of intervals, during CDI her average rates remained the about the same to 5.79% of intervals, during TDI her rates decreased to 3.06% of intervals.



*Figure 21. Unlabeled Praise Figure*Table 25.
Unlabeled Praise Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	6.53%	7.22 %	5.83%
CDI	3.96%	6.93%	5.79%
TDI	4.58%	10.00%	3.06%

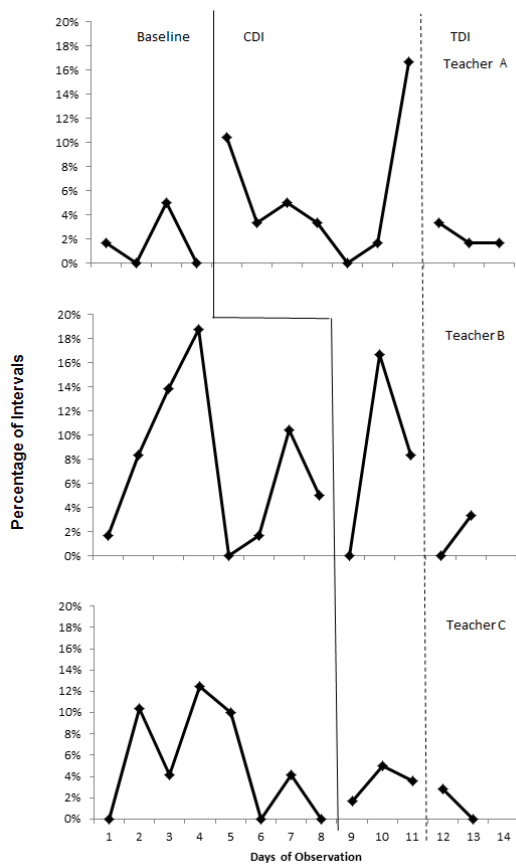
Questions occurred at high rates for Teacher A, B and C (Figure 22). For Teacher A during baseline her average rates were 21.81% of intervals, during CDI her average rates decreased to 13.06% of intervals, during TDI rates increased, but still remained below baseline rates to 20.83% of intervals. For Teacher B during baseline her average rates were 33.82% of intervals, during CDI her average rates decreased to 27.35% of intervals, during TDI rates increased above baseline rates to 36.67% of intervals. For Teacher C, during baseline her average rates were 25.10% of intervals, during CDI her average rates decreased to 20.00% of intervals, during TDI her rates increased but remained lower than baseline rates to 23.33% of intervals.



*Figure 22. Questions Figure*Table 26.
Questions Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	21.81%	33.82%	25.10%
CDI	13.06%	27.35%	20.00%
TDI	20.83%	36.67%	23.33%

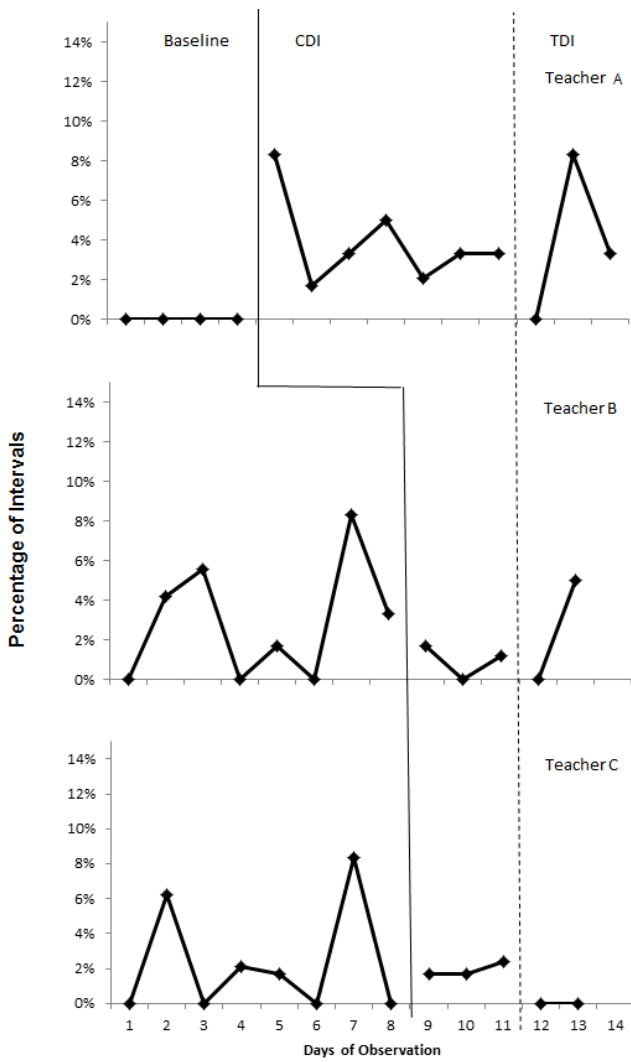
Reflections occurred at low rates for Teacher A and moderate rates for teachers B and C during baseline (Figure 23). For Teacher A during baseline her average rates were 1.67% of intervals, during CDI her average rates increased to 3.96% of intervals, during TDI rates increased again to 5.83% of intervals. For Teacher B during baseline her average rates were 7.47% of intervals, during CDI her average rates increased to 8.33% of intervals, during TDI rates decreased to 1.67% of intervals. For Teacher C, during baseline her average rates were 5.16% of intervals, during CDI her average rates decreased to 3.41% of intervals, during TDI her rates further decreased to 1.39% of intervals.



*Figure 23. Reflections Figure*Table 27.
Reflections Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	1.67%	7.47 %	5.16%
CDI	3.96%	8.33%	3.41%
TDI	5.83%	1.67%	1.39%

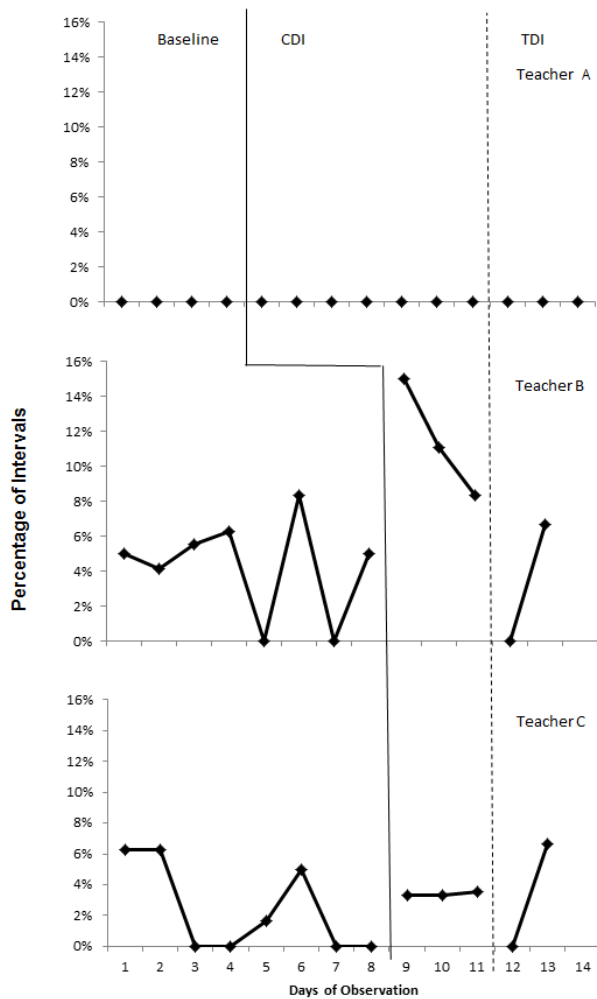
Behavior Descriptions did not occur for Teacher A during baseline, while for Teachers B and C there were low rates (Figure 24). For Teacher A during baseline her average rates were 0.00% of intervals, during CDI her average rates increased to 3.96% of intervals, during TDI rates decreased slightly but remained well above baseline rates to 3.75% of intervals. For Teacher B during baseline her average rates were 2.88% of intervals, during CDI her average rates decreased to 0.95% of intervals, during TDI rates increased to similar rates of baseline to 2.50% of intervals. For Teacher C, during baseline her average rates were 2.29% of intervals, during CDI her rates decreased to 1.90% of intervals, during TDI her rates further decreased to 0.00% of intervals.



*Figure 24. Behavior Descriptions Figure*Table 28.
Behavior Descriptions Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	0.00%	2.88%	2.29%
CDI	3.96%	0.95%	1.90%
TDI	3.75%	2.50%	0.00%

Positive Touch occurred at varying rates for Teacher A, B and C, Teacher A did not use Positive Touch throughout intervention (Figure 25). For Teacher A during baseline overall rates were 0.00% per interval. For Teacher B during baseline her average rates were 4.29 of intervals, during CDI her average rates increased to 11.48% of intervals, during TDI rates decreased to below baseline rates to 3.33% of intervals. For Teacher C, during baseline her average rates were 2.40% of intervals, during CDI her average rates increased to 3.41% of intervals, during TDI her rates stayed similar to CDI rates 3.33% of intervals.



*Figure 25. Positive Touch Figure*Table 29.
Positive Touch Per Condition

Phase	Teacher A	Teacher B	Teacher C
Baseline	0.00%	4.29%	2.40%
CDI	0.00%	11.48%	3.41%
TDI	0.00%	3.33%	3.33%

Child Behaviors

All seven child behaviors were observed throughout the duration of the study.

Rates of compliance to commands and answers to questions, per opportunity, are shown below. Additionally, rates of destructive, aggressive and yelling behavior, by percentage of intervals, on average are shown below, as disruptive behavior. Data for each classroom

is show below, using aggregate data of all the children in the classroom due to the nature of the universal prevention program.

Children in Teacher A’s Classroom (Kindergarten)

Compliance to commands stayed at relatively high rates throughout. Due to compliance to commands being calculated per opportunity there were relatively low rates of commands observed. During baseline rates averaged to 96%. During CDI rates remained similar at 98%. During TDI there was a slight decrease with rates at 82%.

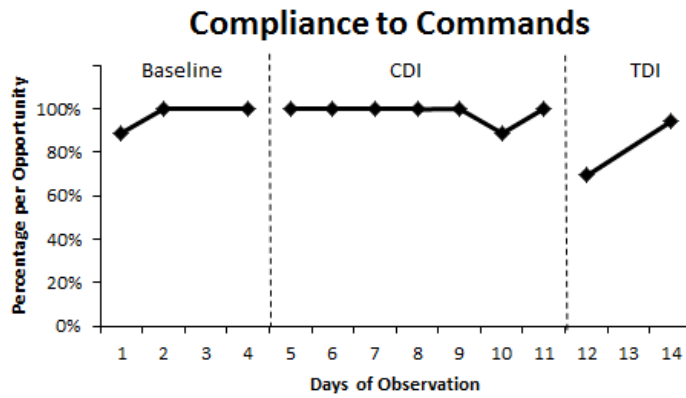


Figure 26. Compliance to Commands Figure

Table 30.

Compliance to Commands Per Condition

Phase	Compliance Rates
Baseline	96%

CDI	98%
TDI	82%

Answers to questions was variable but rates remained high throughout. Due to answers to questions being calculated per opportunity there were relatively low rates of questions observed. On day seven there were only two questions asked and they were not answered. During baseline rates averaged to 100%. During CDI rates decreased to 76% and were variable. During TDI there was a slight increase in rates to 85%, although it was still below baseline rates.

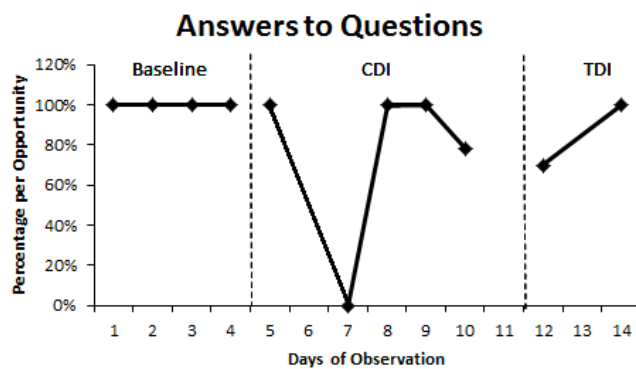


Figure 27. Answers to Questions Figure

Phase	Answer Rates

Baseline	100%
CDI	76%
TDI	85%

Table 31.
Answers to Questions Per Condition

Disruptive behavior includes yelling, aggressive and destructive behavior. Overall no disruptive behaviors were observed.

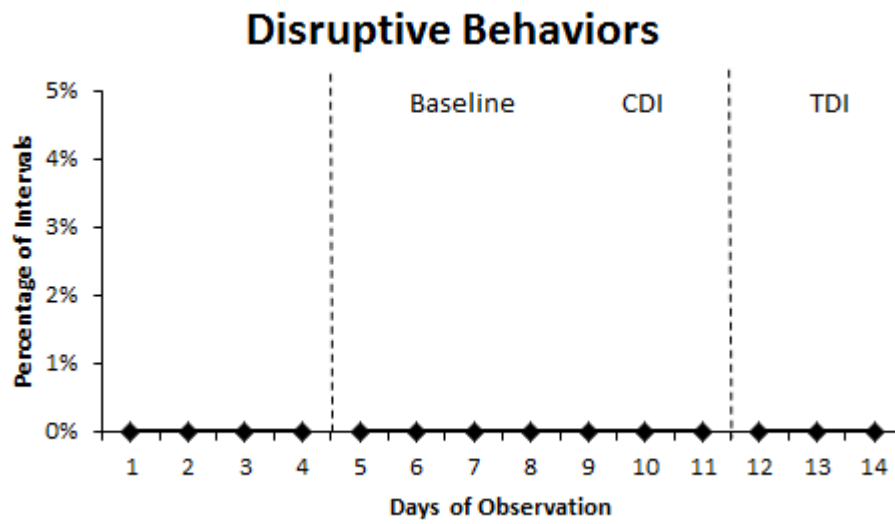


Figure 28. Disruptive Behavior Figure

Table 32.
Disruptive Behavior Per Condition

Phase	Disruptive Behavior Rates
Baseline	0%
CDI	0%
TDI	0%

Children in Teacher B and C’s Classroom (Preschool)

Compliance to commands was variable but rates remained high throughout. Due to compliance to commands being calculated per opportunity there were relatively low rates of commands observed. For day eight only one command was observed being given to a child and that child did not comply thus resulting in 0% compliance. During baseline rates averaged out to 71%. During CDI rates remained similar at 71%. During TDI there was a slight increase with rates at 83%.

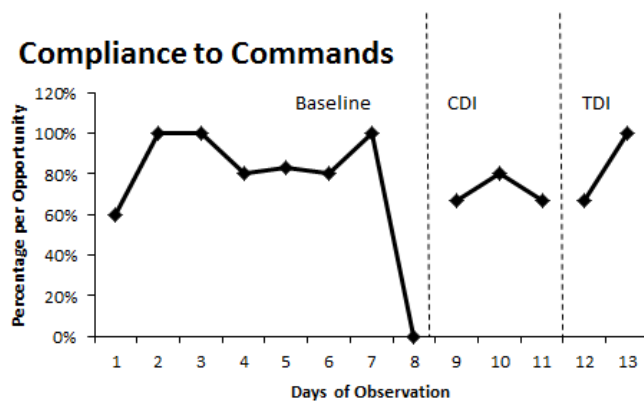


Figure 29. Compliance to Commands Figure

Table 33.

Compliance to Commands Per Condition

Phase	Compliance Rates
Baseline	75%
CDI	71%
TDI	83%

Answers to questions was variable but rates remained high throughout. Due to answers to questions being calculated per opportunity there were relatively low rates of questions observed. During baseline rates averaged out to 88% with a decreasing trend. During CDI rates remained similar at 87%. During TDI there was an increase in rates to 100%, although there were only two days of data collection during TDI.

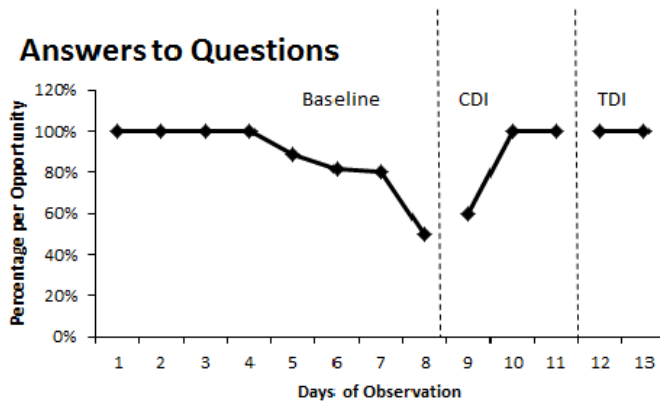


Figure 30. Answers to Questions Figure

Table 34.

Answers to Questions Per Condition

Phase	Answer Rates
Baseline	88%
CDI	87%
TDI	100%

Disruptive behavior includes yelling, aggressive and destructive behavior. Overall rates were very low throughout the study. Rates remained below 1% of intervals observed. During baseline rates averaged out to 0.17%. During CDI rates remained similar at 0.20%. During TDI rates remained low at 0.11%.

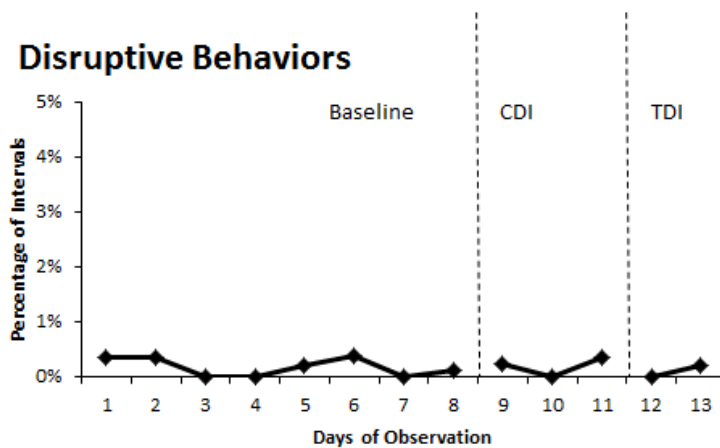


Figure 31. Disruptive Behavior Figure

Table 35.
Disruptive Behavior Per Condition

Phase	Disruptive Behavior Rates
Baseline	0.17%
CDI	0.20%
TDI	0.11%

Devereux Early Childhood Assessment (DECA) and Devereux Student Strengths Assessment (DESSA) Data

The DECA ratings of each child were analyzed through two way repeated measure ANOVA as well as repeated measures t-tests. The DESSA data was analyzed through repeated measures t-tests. Using ANOVAs is essential when a subject, the child, is measured two or more times on the dependent variable. The subjects are used as their own control (Vogt, 1999). Repeated measures t-tests were used to further understand the DECA data as well as interpret the DESSA data due to the small sample size.

DECA

For Total Protective Factors, there was a significant main effect of teacher type (head or assistant) on TPF scores, $F(1, 14) = 18.506, p = .001, \text{partial } \eta^2 = .569$. This means that type of teacher (head or assistant) had a significant effect on TPF scores. There was no significant main effect of time (pretest to posttest) on TPF scores, $F(1, 14) = 0.161, p = .695, \text{partial } \eta^2 = .011$. There was no significant interaction effect between type of teacher and time on TPF scores, $F(1,14) = 0.140, p = .714, \text{partial } \eta^2 = .010$. That is the effect of type of teacher on TPF scores did not depend on time in intervention.

To look further at the changes for head teacher and assistant teachers for total protective factors, repeated measures t-test was ran to compare head teacher pretest scores to head teacher posttest scores, as well as assistant teacher pretest scores to assistant teacher posttest scores. The head teacher's pretest scores ($M=51.467, SD=7.981$) did not differ significantly from the posttest scores ($M=51.200, SD=1.9351$), $t(14) =$

.303, $p = .767$. The assistant teacher's pretest scores ($M=58.000$, $SD=13.406$) did not differ significantly from the posttest scores ($M=57.267$, $SD=11.424$), $t(14) = .415$, $p = .684$.

For Behavior Concerns, there was a significant main effect of teacher type (head or assistant) on BC scores, $F(1, 14) = 6.301$, $p = .025$, partial $\eta^2 = .310$, $r = .557$. There was no significant main effect of time on BC scores $F(1, 14) = 2.434$, $p = .141$, partial $\eta^2 = .148$, $r = .385$. There was a significant interaction effect between type of teacher and time on BC scores, $F(1,14) = 10.422$, $p = .006$, partial $\eta^2 = .427$. Due to the interaction effect, these results indicate that the effect of time, on the scores depends primarily on the type of teacher filling out the forms.

To look further at the changes for head teacher and assistant teachers for behavior concerns, repeated measures t-test was ran to compare head teacher pretest scores to head teacher posttest scores, as well as assistant teacher pretest scores to assistant teacher posttest scores. The head teachers' posttest scores ($M=43.867$, $SD=13.695$) were significantly lower than pretest scores ($M=50.400$, $SD=12.258$), $t(14) = -2.685$, $p = .018$. The correlation coefficient, $r = .74$, represents a large effect size. The assistant teacher's pretest scores ($M=37.800$, $SD=12.9184$) did not differ significantly from the posttest scores ($M=39.600$, $SD=12.772$), $t(14) = -1.269$, $p = .225$.

DESSA

Due to the small sample size repeated measures t-tests were conducted. All eight subscales as well as the composite scale were analyzed. The alpha level was adjusted to account for family-wise error inflation. Given 9 t-tests were conducted, the traditional

alpha level of .05 was divided by 9, yielding an adjusted alpha level of .006. This alpha level was compared to the p -values provided by SPSS to determine which t-tests yielded statistically significant results.

For the Personal Responsibility subscale, the average pretest PR scores ($M = 49.86$, $SD = 11.24$) and posttest PR scores ($M = 56.00$, $SD = 9.93$) did not significantly differ, $t(13) = -2.162$, $p = .05$.

For the Optimistic Thinking subscale, the average posttest OT scores ($M = 57.57$, $SD = 7.54$) were statistically significantly higher than the pretest OT scores ($M = 46.71$, $SD = 8.47$), $t(13) = -4.25$, $p = .001$, $r = .76$. The 95% confidence interval for the mean difference between pretest and posttest OT scores was -16.38 to -5.34. The standardized effect size, Cohen's d , was 1.14 which means that posttest scores were a little over one standard deviation higher than pretest scores, on average. Our effect size, which in this case we computed a correlation coefficient, $r = .76$, represents a large effect size.

For the Goal Directed Behavior subscale, the average pretest GR scores ($M = 46.36$, $SD = 11.23$) and posttest GR scores ($M = 55.07$, $SD = 11.13$) did not significantly differ, $t(13) = -2.547$, $p = .024$.

For the Social Awareness subscale, the average posttest SO scores ($M = 57.64$, $SD = 7.59$) were statistically significantly higher than the pretest SO scores ($M = 49.86$, $SD = 10.09$), $t(13) = -3.736$, $p = .002$, $r = .72$. The 95% confidence interval for the mean difference between pretest and posttest SO scores was -12.29 to -3.28. The standardized effect size, Cohen's d , was 1.0. This means that posttest scores were approximately one

standard deviation higher than pretest scores, on average. Our effect size, which in this case we computed a correlation coefficient, $r = .72$, represents a large effect size.

For the Decision Making subscale, the average posttest DM scores ($M = 58.07$, $SD = 10.76$) were statistically significantly higher than the pretest DM scores ($M = 49.57$, $SD = 8.15$), $t(13) = -3.653$, $p = .003$, $r = .71$. The 95% confidence interval for the mean difference between pretest and posttest DM scores was -13.53 to -3.47. The standardized effect size, Cohen's d , was 0.98. This means that posttest scores were almost one standard deviation higher than pretest scores, on average. Our effect size, which in this case we computed a correlation coefficient, $r = .71$, represents a large effect size.

For the Relationship Skills subscale, the average pretest RS scores ($M = 52.50$, $SD = 9.83$) and posttest RS scores ($M = 57.00$, $SD = 9.24$) did not significantly differ, $t(13) = -1.823$, $p = .091$.

For the Self-Awareness subscale, the average posttest SA scores ($M = 58.57$, $SD = 10.88$) were statistically significantly higher than the pretest SA scores ($M = 47.57$, $SD = 10.45$), $t(13) = -3.892$, $p = .002$, $r = .73$. The 95% confidence interval for the mean difference between pretest and posttest SA scores was -17.11 to -4.89. The standardized effect size, Cohen's d , was 1.04. This means that posttest scores were a little over one standard deviation higher than pretest scores, on average. Our effect size, which in this case we computed a correlation coefficient, $r = .71$, represents a large effect size.

For the Self-Management subscale, the average pretest SM scores ($M = 51.29$, $SD = 10.03$) and posttest SM scores ($M = 56.07$, $SD = 10.21$) did not significantly differ, $t(13) = -1.735$, $p = .106$.

For the Social Emotional Composite score (all eight subscales added together), the average pretest SEC scores ($M = 48.93$, $SD = 9.52$) and posttest SEC scores ($M = 57.29$, $SD = 9.44$) did not significantly differ, $t(13) = -3.256$, $p = .006$, $r = .67$, according to our adjusted alpha level of .006. The 95% confidence interval for the mean difference between pretest and posttest SEC scores was -13.903 to -2.812. The standardized effect size, Cohen's d , was 0.87. Thus, the posttest scores were 0.87 standard deviation units higher than pretest scores, on average. Our effect size, which in this case we computed a correlation coefficient, $r = .67$, represents a large effect size. Our statistical significance tests for the SEC scores was technically not significant, (our p -value was not less than our alpha level of .006), although due to large effect sizes, the case could be made for having practically significant results.

Head Teacher Data on Children At Risk by Classroom

In the preschool classroom pre and post data were collected for 15 students. Data reported includes those children who are considered in the below average range for total protective factors, or in the above average range for behavior concerns. On each graph there is a line indicating where these points begin.

Total Protective Factors

One child's data is presented below, at the pretest point the score was in the below average range. After intervention scores for this child remained the same in the below average range. Before intervention 6.67% of children in the classroom scored in the

below average range, after intervention the same 6.67% of children in the classroom scored in the below average range.

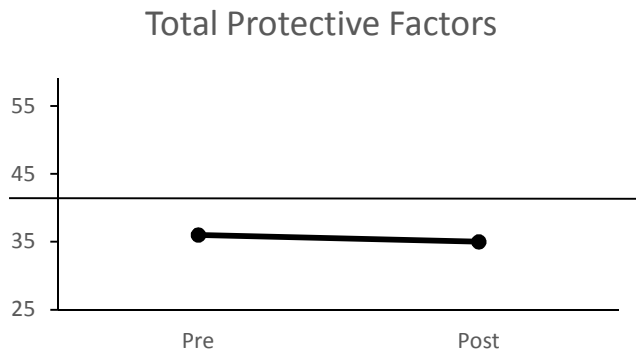


Figure 32. Total Protective Factors Preschool

Behavior Concerns

Six individual children's data is presented below, at the pretest point five of the scores were in the above average range, while one score was in the below average range. After intervention scores of four children were in the average range, while two were in the above average range. Before intervention 33.33% of children in the classroom scored in the above average range, after intervention 13.33% of children in the classroom scored in the above average range.

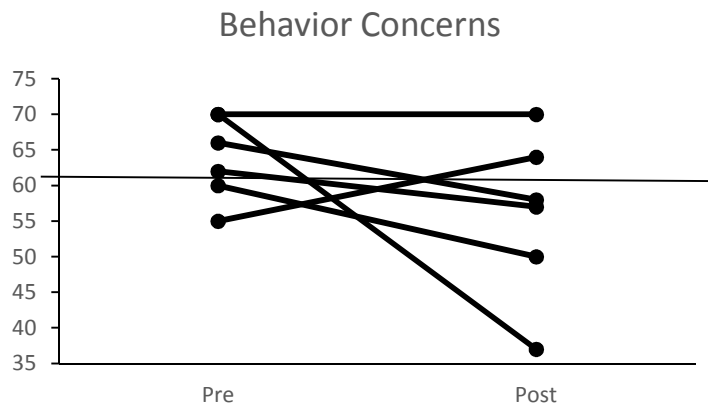


Figure 33. Behavior Concerns Preschool

Head Teacher Data on Children At Risk by Classroom

In the kindergarten classroom pre and post data were collected for 14 students. Data reported includes those children who are considered in the need for instruction range. On each graph there is a line indicating where these points begin.

Social-Emotional Composite

Four children’s data are presented below, at the pretest point the scores were in the need for instruction range. After intervention scores for all four children were in the typical range. Before intervention 28.57% of children in the classroom scored in the need for instruction range, after intervention the 0% of children in the classroom scored in the need for instruction range.



Figure 34. Social-Emotional Composite Kindergarten

Discussion

School-based prevention programs have had great success. Universal intervention in the classroom effects 80 to 90 percent of the students, if the program is well implemented (Sugai, Horner & Gresham, 2002). Universal programs target a large proportion of the school population. Additionally, universal prevention programs for children with aggressive and disruptive behavior show that there are large effects for younger students and children with lower socioeconomic status (Wilson & Lipsey, 2007). These programs are cost effective, and do not target specific children. Having school-based prevention programs may be promising for those less likely to seek traditional mental health services (Atkins et al., 2006; Breitenstein et al., 2007). By having a school

based prevention program, in a school that serves a wide range of students, this will help target a population that will benefit greatly.

One promising intervention for behavior challenges in the classroom is Teacher Child Interaction Training (TCIT). TCIT has been effective in multiple settings and implementations. Research has shown that TCIT has been effective for an individual child with disruptive behaviors (McIntosh, Rizza & Bliss, 2000). TCIT when compared to a class-wide token economy was more effective in reducing negative talk of teachers and better student compliance. Using PCIT skills in the classroom showed increases in labeled praise (Tiano and McNeil, 2006). The current study was a replication and expansion of research evaluating the DePaul model of TCIT, a universal prevention program for behavior problems in preschool children (Lyon, et.al.,2009 ;Gershenson, et al.,2010). Additionally, there was a more recent replication of the DePaul model of TCIT in preschool classroom in the mideast (Devers, Rainear, Stokes and Budd, 2012).

The most recent replication used two preschool classrooms, using a multiple baseline design across classrooms. Consistent with previous research, there were observed increases in Do Skills, decreases in Don't skills, as well as reductions in behavior challenges in children (Devers, Rainear, Stokes and Budd, 2012).

The current study consisted of two studies. The first study consisted of a multiple baseline design across behavior sets. Baseline data was collected, the Child Directed Interaction phase was split into two trainings, with the Teacher Directed Interaction phase kept as one training. The interobserver agreement for this study was considered in the

moderate range. This study included three teachers in two preschool classrooms. This study was a replication of the previous study the year before.

Overall PRIDE Skills aggregate data indicates positive teacher changes. There were consistent levels of increase throughout the intervention. As in previous research, teachers increased their use of PRIDE skills in accordance with the experimental design. For behaviors targeted in CDI 1, negative talk remained at low levels throughout, after the intervention negative talk decreased until TDI was introduced. When focusing on reducing negative talk, teachers were able to reduce their negative talk, although when switching to another skill set there was a slight increase. Labeled Praise showed a positive increase after intervention, even when learning a new skill set, rates still remained higher than baseline rates. Unlabeled praise was already at a high level during baseline, unlabeled praise was variable, and increased most significantly after TDI. The focus is primarily on changing unlabeled to labeled praise, yet unlabeled praise is still important. During TDI while there was a decrease in labeled praise, there was a significant increase in unlabeled praise, which may be due to the change in skill set. Behavior descriptions showed a slow increase across interventions, although only increased significantly after TDI. Behavior Descriptions are not as natural as praise and this skill may take longer to fully acquire. Positive touch remained at low rates, but decreased across the intervention. While positive touch is not a significant part of intervention, it did decrease. Particularly, in both of these classrooms there was already a lower rate. As well, it may be possible that overtime with increases in other skills, observers may not have been as focused on positive touch and missed incidents.

For behaviors targeted in CDI 2, reflections showed increases after intervention and remained at a high rate during TDI. For questions there was a decrease after baseline, possibly related to increases in other skills, as well after being targeted there was a significant decrease which remained low during TDI. For direct commands, when targeted there was a decrease, although when switching to TDI there were rates similar to baseline. During TDI the focus is on getting children to comply with commands, thus an increase in rate was not problematic. For indirect commands there was a steady decline which remained low during TDI. Results indicated that when teachers used commands they were more likely overtime to use direct commands.

For the teacher ratings of the child behavior, DECA, there were positive changes. Results indicated significant effects for the head teacher ratings for increases in total protective factors. Data for the behavior concerns were not significant. Thus, for both classrooms there were significant increases in total protective factors by head teacher ratings. This indicated the head teachers see the children as having more protective factors.

Looking individually at the data for children who are at risk, results look promising. For total protective factors, there were fewer children in the below average range after intervention. For behavior concerns, there were fewer children in the above average range after intervention.

The second study consisted of a multiple baseline design across classrooms. Data were collected during baseline, CDI and TDI. The interobserver agreement for this study was considered in the substantial range. This study included three teachers, two teachers

in a preschool classroom and one teacher in a kindergarten classroom, in order to replicate previous studies as well as expand to kindergarten.

Overall PRIDE Skills showed increasing trends for teacher A, while trends for teacher B and C were slightly decreasing. For negative talk, there were already low rates, which remained low across interventions. For direct commands there were decreases after intervention, with increases during TDI. The same pattern emerged for indirect commands, thus after intervention there were decreases in commands, although they increased during TDI. For teacher A the same pattern emerged that when using a command this teacher was more likely overtime to use direct commands. Although for teachers B and C this did not hold true. For labeled praise there were increases for teacher A across time, for teachers B and C there were relatively stable rates. For unlabeled praise, for teachers A and B there were slight decreases, which increased again during TDI, for teacher C there was a slight decrease across time. For questions after intervention there was a decrease, although during TDI when focusing on questions and answers there was increases in questions. For reflections teacher A started at low rates and increased across time. For teachers B there was an increase after invention with a decrease during TDI, for teacher C there was a decline throughout intervention. Behavior descriptions were most variable. For teacher A behavior descriptions were never used until intervention. For teachers B and C the rates were low and did not increase after intervention. For positive touch, this did not occur for teacher A, although for teachers B and C there were increases after intervention. The increases in positive touch occurred in the preschool classroom, where positive touch may be seen as more acceptable in comparison to a kindergarten classroom.

For child behaviors, children were observed for two to four minutes per day. Child data was separated by classroom. For the kindergarten classroom compliance to commands was at high rates and decreased slightly during TDI. Rates still remained above 80%. Due to data collection only occurring for two days during TDI, the teacher skills may not have been fully effective. For answers to questions, rates remained relatively high, on one day there was 0% of questions answered, this day only two questions were observed being asked to children. For disruptive behaviors, none were observed. Thus our data collection system did not accurately capture disruptive behaviors in kindergarten classrooms.

For the preschool classroom, rates were high, but variable. Although during TDI rates were the highest at 83% indicated that this intervention produced increased rates in compliance. For answers to questions there were overall high rates, although they stabilized during TDI. For disruptive behaviors, rates were extremely low and stayed low throughout.

For the teacher ratings of the preschool child behavior, DECA, there were positive changes. Results indicated significant effects for the head teacher ratings for decreases in behavior concerns. Data for the total protective factors were not significant. Thus, there were significant increases in behavior concerns by head teacher ratings. This indicates the teachers see the children as having less behavior concerns.

For teacher ratings of kindergarten child behavior, DESSA, there were positive changes. There were significant increases in optimistic thinking, social awareness, decision making and self-awareness. For the overall social-emotional composite there

were not significant results, although due to the large effect size there are practically significant results. This indicated the teacher sees the children as having increases in several areas.

Looking individually at the data for children who are at risk for preschool, results look promising. For total protective factors only one child was in the below average range after intervention. For behavior concerns there were fewer children in the above average range after intervention.

Looking individually at the data for children who are at risk for kindergarten, results look promising. For the social-emotional composite after intervention there were no children in the need for instruction range.

Overall results are consistent, to some degree, with our expected outcomes. In looking at both studies and the results, the details are summarized below. For negative talk, these rates were already low and remained low throughout intervention. For labeled praise there were increases for four teachers and relatively stable rates for two teachers. For unlabeled praise there was a trend of decrease after intervention and then an increase after TDI. This may be due to the change in skills required. With labeled praise being preferred over unlabeled praise the decrease in unlabeled makes sense. Although, during TDI when there are new skills to learn, it appears unlabeled praise increased. Across both interventions behavior descriptions were variable. Behavior descriptions are usually a new skill for teachers and it appears this is especially challenging for teachers to learn. Positive touch was variable across both interventions; positive touch is not a main target. Additionally, there was no positive touch in kindergarten indicating that this behavior

may not be as acceptable, or possible in a more structured environment. For reflections, results primarily indicated there were increases after intervention. For questions, there was a decrease after intervention. For one study the rates remained low, although for the second, shorter study, there were increases in questions when it was not being targeted. For direct commands there were decreases after intervention and increases after TDI. This seems to make sense, as during TDI the teachers focused on the follow through after commands. For indirect commands there were decreases after intervention, although in one study the rates remained low during TDI, for the second shorter study the rates of indirect commands increased during TDI.

For observed child behavior, disruptive behaviors were already low and did not decrease. For increases in adaptive classroom behaviors, results were variable although rates remained above 80% for answers to questions and compliance to commands.

For the teachers' assessments of student behavior there were positive changes. For the first study there were significant positive changes in total protective factors. For the second study there were significant decreases in behavior concerns. Additionally, for the kindergarten classroom there were significant increases across multiple domains. Interestingly, results for the assistant teacher data was never significant. While the only requirements for the DECA are that the teacher must have substantial exposure to the child in the past four weeks, and be qualified, it would be interesting to know what exact qualifications a teacher must have. For assistant teachers their education and background varied. Overall results were not significant for assistant teachers. It would be interesting to further understand this dynamic as well as address these concerns.

In order to best capture the training during TDI future studies must address effective sequences. If data are collected on teachers effective sequences this will give a better picture of the intervention, as well as give more experimental control.

Looking overall at the data collection, during the first longer study results were more stable and thus seemed to be more durable, lasting even past the intervention. This may also be due to the multiple interventions, allowing each session to only focus on a few skills. For the second study, the results were more variable, especially in the preschool classroom. This second study started later in the school year and did not last as long, almost half as long. Starting earlier in the school year and maintaining intervention longer may lead to more stable and enduring results.

Internal Validity

There are several factors which could be considered threats to the internal validity of this study. The classrooms included in the study were selected by convenience, the principal of the school, as well, previous teacher participants indicated which classrooms would be willing to participate and benefit from the study. The teachers were suggested, and not nominated based on poor performance. These factors could have led to teachers being more accepting of the intervention, which could limit the generalizability of the study. If teachers were to be nominated, or not voluntarily agreeing to the intervention, this could affect the effectiveness of the intervention.

The change in the children's behaviors could be attributed to maturation. As children age there are decreases in more disruptive behavior. Although due to the changes

corresponding with the introduction of different phases, and that the interventions only lasted for several months at the end of the school year, this explanation is unlikely.

Findings from these two studies could be strengthened by changing some of the observations processes. In the first study several observers were aware of the trainings, and having blinded observers would be ideal to reduce the possibility of bias. During the second study all observers did not participate in the trainings, although even though they were blinded to the training procedures, observers were aware of the changes in teacher behavior and could not be fully blinded. While data were only taken during the morning times, it would be important to consider collecting data at different times of the day, especially times where teachers have problem behaviors.

In the first study kappa values were moderate, and should be interpreted with some caution. It would be important to address the reliability by tracking interobserver reliability during the course of the study. In the second study kappa values were substantial, although one category was in the fair range. The DECA and DESSA ratings pre- and post- may be of concern due to the teachers' time commitment and involvement in the trainings and expectation biases. While observational data for the children was collected for the second study, relying only on teacher ratings is of concern.

External Validity

Only using one school for the first study, and only one kindergarten class for the second study would suggest limited generalizability. Although there is evidence of TCIT being successful with diverse populations, Lyon, et al. (2009) looked at urban, low SES populations. Additionally Devers, et al. (2012), replicated this study and used primarily

ESL children in both regular and Head Start classrooms in a rural area. The current study draws upon the findings with these diverse population to replicate, as well as expand the sample to kindergarten students.

Results could also be effected by the amount of time children are observed. Each child is typically observed for two to four minutes each day. Thus, even if a child is disruptive we may not be able to catch this behavior due to the random schedule of observation. In order to better understand child behavior, it is recommended that a better observational system be used.

Limitations

One limitation of the current studies is the timing of the intervention. Universal prevention programs can start at any time during the school year, yet the earlier the interventions start the better. With these two studies the intervention for the teachers began in the second half of the school year. At this point during the school year there were already expectations and classroom interaction styles which have been in effect for most of the school year. It would be important to study teacher implementation at the beginning of the school year, as well as continued programming across multiple school years.

With this study there were many participants and research assistants involved. Due to the multiple moving parts there were constraints on the days trainings could occur, days observations could occur and the school schedule. Running multiple baseline designs without the flexibility to train immediately, limits the opportunity to fully demonstrate how the trainings effected the teacher's behaviors.

Recommendations for Future Research

Based on the successful implementation and positive feedback with encouraging results, this body of research could be furthered with larger studies, as well as randomized controlled trial studies. Comparisons with other treatment models, as well as no treatment, would be helpful in identifying the success of TCIT as a universal prevention program. There are many areas within TCIT which need further exploration. Within this study, a mastery criterion was not identified. Identifying mastery criterion for teachers, similar to PCIT mastery criterion for parents, would be essential.

While these two studies have similar models of training and coaching, identifying the time required for each would be important to further manualize TCIT, as well as understand the amount of time needed to be put in by both the teachers and coaches. Coaching is a variable which is important to the maintenance of skills, yet it is virtually unstudied. Coaching can vary considerably in the types and amount of feedback provided by the coaches.

Anecdotally teachers reported increases in language production of students, particularly in preschool classrooms. With many ESL students in the classroom, the effect TCIT has on language production and academic outcomes would be interesting to evaluate. As a universal prevention program, understanding the long term effects of TCIT on students' behavior would be important to evaluate to determine the longevity of this early intervention.

Data collection using the DPICS and REDSOCS, as well as the teacher reports using the DECA and DESSA was helpful in identifying change. Although it would be

important to consider other alternative measures. Specifically it was challenging to code child behaviors, and due to limited time observing each child each day it is hard to tell how well the data represent the children's behaviors.

One alternative to look at teacher's effectiveness, is the Classroom Assessment Scoring System (CLASS). CLASS is available for preschool to 12th grade and measures teacher's effectiveness, helps teachers understand how their interactions affect student learning and documents the changes in teachers' interactions with students (La Paro, Pianta & Stuhlman, 2004).

While the DECA did look at child attachment it would be important to assess this further, and possibly code these behaviors. One example that could be adapted is the Coding of Attachment-Related Parenting (CARP). This measure can assess sensitive responding, positive and negative affect and mutuality in parent-child dyads of school aged children (Matias, 2006). This measure is reliable observational method to measure attachment-related parenting. It would be important to adapt the measure to teacher needs, but would offer valuable information.

When thinking about the expansion to kindergarten it would be important to change the materials. Often the TCIT materials includes examples of children playing and coloring. While this occurs in kindergarten, there is also a lot more direct instruction, and structured group times. Materials should better reflect the content of teacher's courses. When measuring disruptive behaviors in kindergarten the disruptive behaviors are different than preschool. As well, academic engagement seems to be an important dimension. One quality program that measures academic engagement and disruptive

behaviors is the Direct Behavior Rating Single Item Scales (DBR-SIS). These scales are available for kindergarten through twelfth grade (Chafouleas, Sanetti, Kilgus & Maggin, 2012). There are many alternative measures which should be looked at before proceeding with data collection on children.

It would be important to address the specific needs of the teachers. While one teacher may think one behavior is disruptive, another teacher may not. It may be advisable to customize to a degree, the data collected on the children. While there are general behaviors, teachers may have different degrees of tolerance.

Implications for Practice

There is a strong need for positive behavior interventions and supports in schools. The Individuals with Disabilities Education and Improvement Act (IDEA, 2004), asks for schools to have positive interventions. Positive interventions are seen as a promising alternative to more punitive, discipline focused programs. TCIT is a strong evidence based program which addresses positive ways to improve behavior.

Additionally, there is a need for evidence based treatment for children with disruptive behavior disorders. With less than 10% of children getting treatment for disruptive behavior disorders (Kazdin & Kendall, 1998) and less than half of the children receiving empirically supported treatments (Chambless & Hollon, 1998), there is a need for TCIT. For children who are of lower SES they are less likely to receive any treatment. Thus, TCIT as a universal prevention program can target a large proportion of a class or school population. TCIT as a universal prevention program to improve student's behavior is quite promising.

Conclusion

Overall results of this research indicate that TCIT is an effective intervention to promote positive behavior in the classroom. TCIT is an intensive training program which focuses on the need for monitoring and feedback. TCIT allows for in-vivo coaching, consultation and feedback through the intervention. When teachers were successful in showing increases in positive attention skills, as well as participating in trainings, coaching and consultation, this lead to positive teacher ratings. The results of this study combined with past literature, supports TCIT as a universal prevention program for behavior concerns in both preschool and kindergarten classrooms.

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Appendix A

<i>Full Board or</i>	<i>James Madison University</i> HUMAN RESEARCH REVIEW REQUEST	<i>Expedited</i>
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Investigators: This form is required for Full Board or Expedited review for all JMU research involving human subjects. If you

FOR IRB USE ONLY:
Protocol Number: IRB- 11-0280

are eligible for an exemption request, please use the alternate form at:
<http://www.jmu.edu/sponsprog/irb/irbExemptionRequest.doc>

Received: 12/10/10 1st Review: _____
 2nd Review: _____ X
 3rd Review: _____

Reviewer: _____ **Approved** Date: _____

Reviewer: _____ **Disapproved** Date: _____

_____ **Exempt** Date: _____

External Funding: YES NO If YES, Sponsor(s): _____

Project Title: Teacher Child Interaction Training for Prevention of Behavior Problems in Preschool Settings

Project Dates: From: 11/8/12 To: 11/7/13 **Minimum Number of Participants** 100

Maximum Number of Participants 300

Responsible Researcher(s): Trevor Stokes, Ph.D **Department:** Baird Center/Grad Psychology

E-mail: stokestf@jmu.edu **Address and/or (MSC):** 225 Blue Ridge Hall 9013

Telephone: 568.8829

Please select: Visiting Faculty Faculty Adjunct Faculty Research Associate Staff Member Student Undergraduate Student Graduate Student

(if Applicable):

Research Advisor: _____ **Department:** _____

E-mail: _____ **Address and/or (MSC):** _____

Telephone: _____

Investigator: Please respond to the questions below. The IRB will utilize your responses to evaluate your protocol submission and/or to determine whether your project is qualified for exemption.

- YES NO Does the James Madison University Institutional Review Board define the project as *research*?

2. YES NO Are the human participants in your study *living* individuals?

3. YES NO Will you obtain data through *intervention* or *interaction* with these individuals?

4. YES NO Will you obtain *identifiable private information* about these individuals?

5. YES NO Does the study present *more than minimal risk* to the participants?

CERTIFICATIONS:

For James Madison University to obtain a Federal Wide Assurance (FWA) with the Office of Human Research Protection (OHRP), U.S. Department of Health & Human Services, **all** research staff working with human participants must sign this form and receive training in ethical guidelines and regulations. "Research staff" is defined as persons who have direct and substantive involvement in proposing, performing, reviewing, or reporting research and includes students fulfilling these roles as well as their faculty advisors. The Office of Sponsored Programs maintains a roster of all researchers who have completed training within the past three years.

By signing below, the Responsible Researcher(s), and the Faculty Advisor (if applicable), certifies that he/she is familiar with the ethical guidelines and regulations regarding the protection of human research participants from research risks. He/she further certifies that he/she has completed training regarding human participant research ethics within the last three years.

Name of Researcher(s)	Signature of Researcher(s) and Faculty Advisor (if applicable)	Date	Training Completed
Trevor Stokes, Ph.D., P-I James Madison University			☒
Karen Budd, Ph.D., Co P-I DePaul University			☒
Jessica Rossi			x

By signing below, the Responsible Researcher(s), and the Faculty Advisor (if applicable), certifies that he/she is familiar with the ethical guidelines and regulations regarding the protection of human research participants from research risks. In addition, he/she agrees to abide by all sponsor and university policies and procedures in conducting the research. He/she further certifies that he/she has completed training regarding human participant research ethics within the last three years.

Principal Investigator Signature Date

Co-Principal Investigator Signature Date

Submit an electronic version of your **ENTIRE** protocol to jmu_grants@jmu.edu.

Provide a **SIGNED** hard copy of the Research Review Request Form to:

Office of Sponsored Programs, MSC 5728, James Madison Administrative Complex, Bldg #6, Suite 26

Research Proposal Checklist

for Submission to the Institutional Review Board on the Use of Human Subjects in Research

Title of Study:	Teacher Child Interaction Training for Prevention of Behavior Problems in Preschool Settings		
Name of Investigator(s):	Trevor Stokes	Phone:	568.8829
Campus Address:	225 Blue Ridge Hall	MSC:	9013
Email Address:	stokestf@jmu.edu		
Research Advisor (if applicable):		Phone	:
Email Address:		MSC:	

(Investigator - Please Organize Material on the following page using the Topics Below)

PURPOSE OR OBJECTIVE(S)

x Limited to one page

PROCEDURES (Included are:)

x Research design and sampling

x Method of collecting data (emphasize possible risks, and protection of subjects)

x Time frame of study

DATA ANALYSIS

x Discussed how confidentiality of subjects and their responses will be maintained

Discussed how data will be stored to ensure confidentiality of subjects

REPORTING PROCEDURES

Identified audience to be reached in the report of the study

Identified the presentation method(s) to be used

Discussed how feedback will be provided to subjects

EXPERIENCE OF THE RESEARCHER

Prior relevant experience of the researcher, supervisor, and/or consultants

ADDITIONAL ATTACHMENTS (if applicable:)

Consent forms (in duplicate-one copy for the subject and one for the investigator)

Letters of permission

Cover letter(s)

Questionnaire

Tests

Additional attachments relevant to the study

NOTIFY OSP OF INTENT TO SUBMIT FOR EXTERNAL FUNDING

Project will be submitted for External Funding

If yes, submit proposal to Sponsored Programs: MSC 5728

Funding

Agency

Program

m

x ***SUBMIT PROPOSAL AND CHECKLIST ELECTRONICALLY TO:**
JMU_grants@jmu.edu

TRAINING, TESTING AND FORM COMPLETION REQUIREMENTS

x Completed IRB training on (12/8/2010) at <http://www.jmu.edu/sponsprog/irb.html>

*Note: Proposals cannot be reviewed by the IRB until all *required* checklist items are present. A sample form that reviewers will use to evaluate your proposal is available from the Sponsored Programs web site at:

(<http://www.jmu.edu/sponsprog/irb/ProtocalEvalForm.doc>)

Purpose and Objectives:

Early intervention has been shown to be successful in improving outcomes for children who are at risk for developing behavior problems or who are already displaying these externalizing behavior challenges in education settings. Further, preventive interventions in preschool and kindergarten classrooms have the potential to enhance positive outcomes for a broader group of children than can be served in one-to-one therapy before future problems occur. Teacher-Child Interaction Training (TCIT) is a universal prevention program that focuses on training teachers as a means of supporting optimal early social-emotional development in children. TCIT is adapted from Eyberg's Parent-Child Interaction Therapy (PCIT), an evidence-based practice for children with disruptive behavior disorders ages two through seven. Despite evidence that negative teacher-child relationships are related to children's later behavior problems, few school-based programs target these relationships as a central focus of the intervention. TCIT offers an approach to universal prevention that emphasizes in-vivo coaching in skills designed to strengthen teacher-child relationships. TCIT's goals are (1) to equip teachers with skills in positive attention and consistent discipline, such that they can confidently handle child behavior challenges in their classrooms, and (2) to increase children's social-emotional adjustment through positive teacher-child interactions, thereby enhancing children's behavioral and academic success in school.

Initially, TCIT was developed by Dr. Karen Budd, Professor of Psychology at DePaul University in Chicago, and offered through a grant from the Kraft Employee Fund of Chicago in 2006-09. The target population was young children (ages 2 years up to 5 years) attending an urban daycare in Chicago serving predominantly low income, ethnic minority children. Thirty-six teachers participated in small groups of six, with both teachers and aides trained together as teams. Training consisted of two phases: Child Directed Interaction (CDI), designed to teach positive attention skills, and Teacher Directed Interaction (TDI), designed to teach discipline strategies that are practical for use in the classroom. Skills were introduced through workshop sessions, followed by several coaching sessions with individual teachers in the classroom to ensure application of the skills in everyday classroom routines. Observational data demonstrated that most of the teachers acquired the skills and used them effectively, and teacher evaluations indicated that they found TCIT valuable for skill development.

In the fall of 2009, in collaboration with School District 206 in Alexandria, MN, a replication of TCIT was delivered to a group of eight preschool and kindergarten teachers, aides, and resource staff. Teacher training involved 24 hours of contact time over 3 months, for which teachers earned continuing

education credits. Data from classroom observations and teacher evaluations indicated that TCIT was well received and resulted in substantial changes in teachers' skills. To assess the effects of TCIT on the children, teachers rated individual children's behavior on the Devereux Early Childhood Assessment (DECA) at three points (before training, after CDI, and at graduation). Using the DECA assessment, aspects of child resiliency (Initiative, Self-Control, and Attachment, which make up the Total Protective Factors scale) and a scale labeled Behavioral Concerns were measured. Teachers' ratings improved significantly from before to after TCIT for Initiative, Self-Control, and Attachment as well for Total Protective Factors. The Behavioral Concerns scale, which was in the normal range for the overall group before training, did not show significant change after TCIT for the whole group. However, an at-risk subgroup of children with clinically elevated ratings on the behavioral concerns scale before training did show a significant decrease in behavioral concerns after TCIT. Overall, these findings provide promising support of TCIT's potential to increase teachers' skill set for enhancing children's social-emotional adjustment and decreasing problem behaviors in the classroom.

In the current project, we will replicate these procedures and complete follow-up assessments in three preschool and five kindergarten classrooms in Harrisonburg City Public Schools. The goal is to improve the educational practices of preschool teachers to enhance children's social and emotional development. Consistent with previous research findings, we expect that results may show teachers' increased positive interactions with students, decreased negative interactions with students and students' decreased behavior concerns.

Data analysis of the research in the spring of 2011 and 2012 has shown that the teachers learned the positive interaction and discipline management styles and were able to implement the program effectively. Increases in positive interactions directed by the teachers toward the young children in their classrooms were clearly noted. Furthermore, teacher negative talk decreased, and their frequency of questions and commands decreased in a productive manner. In addition the children showed positive changes, most importantly in engagement dimensions of answering questions and following commands in the classroom, as well as showing decreased disruptive behaviors of yelling, aggression and destruction. Teachers rated the program very highly and have asked for continuation of the program and evaluation in their classrooms. The Principal of the school has asked us to conduct an additional evaluation of the same protocol implemented in kindergarten classrooms. The request to extend and expand the evaluation to all preschools (3) and the kindergarten classrooms at Spotswood Elementary is the basis of this IRB protocol revision request.

Methods:

Participants

Eight primary teachers and four instructional assistants from eight preschool and kindergarten classrooms at Spotswood Elementary School and Stone Spring Elementary in Harrisonburg will participate in TCIT during the Spring of 2011, the Fall of 2011 and the Spring of 2012, and the Spring and fall of 2013. Each classroom has 18-20 students, ages 3-7. The eight classrooms have been nominated by the Principals at Spotswood Elementary School and Stone Spring Elementary and the teachers in each classroom have expressed their interest to participate in the study. The program aims to improve the interaction strategies and techniques used by the teachers and instructional assistants in their usual activities, and as such are the primary focus of the study. It is expected that there may be some changes in the behaviors of the children and in the teacher's and instructional assistants ratings of the children during the training. Therefore, the children in the classroom are also a focus of the study.

Procedures

A team of fourteen JMU graduate (3) and undergraduate (11) student researchers were trained to mastery criteria on the classroom behavior scoring codes during the Fall semester of 2012, with continuing training through the Fall of 2013. This training occurred in simulated conditions in research space at the Baird Center. Only research team members named in this proposal supervise these training activities. During the current study, this team will observe interactions between the teachers, instructional assistants and the students in the classrooms, by taking observational samples of the teachers', instructional assistants' and the students' behavior during a 180minute period between 8.30 a.m. and 11.30 a.m. Observations will be conducted one to four days per week. Observers will rotate observations across classroom participants in two-minute samples on predetermined randomized schedules. The behavior scoring codes are attached to this proposal.

The teacher will have a master list in the classroom which links student names to their number. This list will not be allowed to leave the classroom. No names will be on any data record. It is expected that the observers will learn the numbers and be able to identify children only by number. They will not be allowed to write down a child's name on any data sheet and will only be allowed to review the matched names and numbers while in the classroom.

For each classroom, the teacher and the one or two instructional assistants will participate in 3- 5 workshop sessions, on school-district designated "First Friday's" teacher training days or other days nominated by the school. The first two workshops session will focus on Child Directed Interaction skills, the subsequent two will focus on Teacher Directed Interaction skills, and the fifth on a graduation/celebration. These workshops will occur across different Fridays designated by the school district throughout the Fall of 2011 and Spring of 2012, and the Spring and Fall of 2013.

Workshops may occur with each classroom at different times, with the beginning of coaching also introduced sequentially across classrooms, or across behavior skill sets. As part of the collaborative assessment, teachers and instructional assistants will be asked to evaluate children's behavior using the Devereux Early Childhood Assessment (DECA) or Devereux Student Strength Assessment (DESSA) up to six times over the course of the study and follow-up. Student academic achievement scores and teacher referrals will also be reviewed. Teachers will also be asked to complete brief classroom practice assignments, a teacher information form and provide consumer satisfaction evaluations of the program. Teachers will receive continuing education credits for participating in the workshops, coaching and evaluations. They will also be paid an honorarium of \$250 for their participation, which will be paid after the graduation session.

If the teachers and instructional assistants were not part of this training, they would be involved in other training activities on "First Fridays" or teacher training and development days. The school district has approved this project as appropriate for training days and continuing education activity.

Dr. Trevor Stokes, Alvin V. Baird Centennial Chair in Psychology at JMU, and Dr. Karen Budd, founder of TCIT and Professor of Psychology at DePaul University in Chicago, will serve as coaches, conducting the workshops and offering feedback in the classroom. Coaches will use didactic instruction, discussion, modeling, role-plays, and handouts as teaching techniques. Interspersed with workshop sessions, teachers and instructional assistants will receive individualized coaching on their skills 1-2 times per week during in-class practice sessions when coaches observe and provide prompt, supportive feedback to refine teachers' skills. Twenty minute sessions of observation and coaching will be conducted in the classroom with each teacher, in a manner allowing brief feedback while not interfering with the flow of classroom activities and teacher interaction with children. Teachers who have been in the program and mastered the skills may also participate in the coaching of peers, as will a doctoral student in clinical/school psychology (Rossi) who has received special training in the procedures. These coaches may observe and record behavior for five minutes prior to coaching. Dr Stokes will supervise all coaches and evaluation activities.

Observers will sit in the classroom during activities to obtain an observational sample of the behaviors of the teachers, instructional assistants and children according to a randomized schedule. Teachers and students in the classroom are accustomed to having extra people in the classroom during the morning time which is the focus of the study. The feedback given to teachers will only be by the coaches who are not observers. The observers will not interact with

the teachers or children except in minimal ways such as initial greeting. The coaches will provide feedback within the flow of activities, at transition times, and in writing. TCIT is developed specifically to respect the teaching activities and not be disruptive. Between them, Dr Stokes and Budd have many decades of experience providing such coaching in classrooms and they have been received positively in their classroom coaching activities. All classroom guests are required to follow any teacher request immediately.

Teacher-Child Interaction Training (TCIT) is a structured curriculum that builds positive teacher-child relationships. In TCIT, teachers participate in workshops and in-class coaching sessions to learn skills in providing positive, responsive attention to children as well as behavior management techniques. The intervention incorporates well established evidence-based methods for enhancing children's positive behavior- content and timing are emphasized in workshops and in-classroom coaching. These involve praise for occurrences of positive behavior, description of appropriate behavior, reflection back of the content of children's verbalization to show teachers are listening, giving clear unambiguous commands and instructions when not giving a choice, sitting and watching (instead of removal from classroom) following aggression, destruction and non compliance behaviors, and attention to positive behavior after return to regular activities. Discipline means teachers reactions to aggression, destruction and non compliance. That is, adjusting from strategies of lecturing, commenting extensively on negative behavior, and removing the child from the classroom, to reacting in a more consistent non-emotional way to negative behavior, explaining briefly why the child will sit and watch an activity for a few minutes, and responding positively to a child's re-engagement in classroom activities.

Outcome measures include: (a) observations of teachers' and instructional assistants' behavior in the classroom; (b) observations of children's behavior in the classroom; (c) and teachers' and instructional assistants' ratings of children's behavior on the DECA or DESSA at baseline, at the beginning of each coaching phase, at the end of coaching, and at a 3-6 month follow-up. To protect confidentiality, teachers, instructional assistants and children will be identified only by randomized code numbers. No data sheets will have any names of participants on them. No information that could identify individuals will be included in any reports or discussions related to this research, including any discussion at the school approved by the Principal.

The TCIT program is a universal prevention program that focuses on a classroom-wide positive climate and the use of teacher management strategies which are consistent, clear and positive, while establishing better communication and reactions to misbehavior which include less intrusive removal from the classroom activities while maintaining a positive reaction to re-

engagement after briefly sitting and watching. Teachers do report they have their “challenge children” but understand the program is for general purposes not specifically targeted at individual children. There is likely to be more focus by teachers on the behavior of some of the children rather than others even while the training focus is on general strategies for maintaining a productive classroom environment. Coaching feedback will likely use examples of behaviors raised in discussion by the teachers and observed by the coach.

Data will be aggregated and presented primarily in time series graphs depicting the repeated observational measures and changes in the dependent variables across time. Individual student data will also be graphed to examine whether there are particular levels and trends in the data related to child behavior. Statistical comparison of DECA scores will be related primarily to mean changes within classrooms regarding the repeated measures and pre- to post- assessments.

Design and time frame of study

The design of the study is a multiple baseline across classrooms and/or skill sets, where the training intervention is introduced sequentially in a manner allowing the effects of the intervention to be assessed in the first classroom (or first skill set) while no changes are implemented in the second classroom (or second skill set). Subsequent delayed intervention in the second classroom (or first skill set) replicates the effects of changes in the first classroom (or first skill set), but with the delayed introduction of procedures this allows control 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 allows each classroom or skill set to be its own control with comparisons of change from baseline to TCIT on multiple variable dimensions and also shows that threats to the internal validity of the intervention effects are reduced by the sequential introduction of the independent variable across time. This design includes options to begin training on different skills sets at different times.

Data collection for baselines will begin in January 2011, November of 2011, and January of 2013). For each classroom, the teacher and one or two instructional assistants will participate in 3-5 workshop sessions, on designated “First Friday’s” teacher training days or other days designated by schools. For each team of classroom personnel, Child Directed Interaction (CDI) procedures will be introduced ~~at one~~ across two training days, Teacher Directed Interaction (TDI) training will be introduced at the subsequent two teacher training days about a month later, and there will be a graduation session to review the program, to receive feedback, and to congratulate participation on the third training day a month later. Training workshops will be conducted in about ~~a half day~~ two hours. There may be brief follow up sessions with the teachers and teacher assistants to answer questions subsequent to the training workshops.

Coaching sessions after training days are usually 20 minutes in length, and will occur about 12 times per teacher and instructional assistant. As part of the collaborative assessment,

teachers and instructional assistants will be asked to evaluate children's behavior using the Devereux Early Childhood Assessment (DECA) or the or Devereux Student Strength Assessment (DESSA) for older children up to six times over the course of the study and follow-up. Time involvement for the completion of evaluations and forms will vary from 10 to 20 hours total over the course of the study, which will run from ~~January to June~~ through November 2013. They will also be asked to complete brief classroom "homework" practice exercises designed to take 5 minutes each and occur daily over the course of TCIT, which totals a maximum of 25 minutes per week over eight to twelve weeks, a teacher information form and provide consumer satisfaction evaluations of the program.

In summary, time involvement is a total of 27 to 38 hours for the staff of each classroom.

Workshops: Total of 10 hours.

4 training workshops. 8 hours

1 graduation workshop. 2 hours.

Instructional class time: Total of 7 to 8 hours.

Coaching, 20 minutes by 12, totaling 3 hours

"Homework" 5 minutes per day, totaling 25 minutes per week for 12 weeks,

Totaling 4-5 hours.

Out of instruction time: Total of 10-21 hours.

Assessments 10-20 hours.

Information/evaluations. Less than 1 hour

Peer coaching involvement by teachers will involve no more than 10 hours

Consent:

The teachers and instructional assistants will give informed consent to participate in the workshops and to receive in-vivo coaching in their classrooms. They will also consent to completing evaluations of students and the program. For participating in the study and for assisting with the students' evaluations, the teachers and instructional assistants in each classroom will receive continuing education credits and an honorarium of \$250. Teachers and instructional assistants involved in follow-up evaluations and peer coaching will also receive an honorarium-of \$250.

Full parental consent will not be obtained in this study. Consent is by parent opt-out after being provided information about the study. Parent information letters (appropriately in English and Spanish) will be sent home attached to the school information sent home regularly by the teachers. In addition, during personal contacts with parents at drop-off and pick up times and during formal parent-teacher conference times, the teachers will ask the parents if they have any questions about the project.

The principal and classroom teachers reported that they usually provide a letter of information about classroom activities and recommended that we inform parents of the teacher training classroom coaching and assessment in this way. The Principal noted that if a reply is needed then there will be inconsistent and poor return and responsiveness, which would reduce our

understanding of the effectiveness of the intervention. This is the same procedure as has been implemented in Illinois and Minnesota TCIT programs. We are asking that parents allow information to be generated about the effects of the classroom changes; we are not asking for consent to make adjustments in the teachers' classroom interactions with the children. These classroom changes will be made as part of refinement of teacher skills approved by the school and the school district for skill development in continuing education.

Parents will receive a notification of their child's participation in the classroom teaching strategies and will receive information about those changes. They will be asked to consider the teaching strategies and be given an opportunity to request an opt out for their child's participation so that their child will not be assessed in any way related to this study.

Consent is not regarding the content of teacher training. Teacher training is related to well-established procedures. The opt-out consent is that if parents do not want their child observed and assessed during this program of teacher training, that will be honored. The teachers will not complete the DECA or DESSA assessments on these children, and the observers will not code the children's behavior. No classroom reassignment will occur and the children will all experience the refinement of the teachers' interaction and management skills.

Consent to participation may be withdrawn at any time.

Consent procedures were strictly followed in the Spring of 2011 and 2012. Teachers talked to parents to seek confirmation of approval. Only one family expressed reservations about the project. These related to possible transportation to JMU for evaluation. Once teacher discussion with parent clarified the nature of activity – all being based at the school – consent was quickly given.

Confidentiality:

Observations of teachers, instructional assistants and children in their classrooms will be collected 1 to 4 days a week for the duration of the study. Two or three trained graduate and undergraduate student research assistants from JMU will be present in each of the two classrooms without participating in ongoing activities. These personnel will be supervised by Dr. Stokes and will adhere to all school and classroom rules, including sign-in and sign-out, as well as following IRB and HIPAA rules.

When sharing results with the school, we will not report on the results of any specific teacher, instructional assistant or child, but rather aggregated across the group.

The information from the Teacher and Instructional Assistant Information Form will be aggregated across the participants. There is no personal identifying information on the form.

In order to protect confidentiality, teachers, instructional assistants and children will be identified only by randomized code numbers. No data sheets will ever show any names of the participants. No information that could identify individuals will be included in any reports or discussions related to this research, including any discussion at the school approved by the Principal.

Data sheets and their summary information will be transported to the Baird Center at JMU for storage in Center computers protected by password access. Original data sheets will be secured in locked filing cabinets in locked rooms at the Baird Center. Only members of the research team will have access to the data.

There will be no data sheets or computer records anywhere which will have any identifying information. The data will always be coded by number. The teachers will maintain a list of names cross-linked to the randomized numbers. This teacher record will never leave the classroom and will be destroyed at the end of the study.

Individual classrooms, teachers and instructional assistants will not be identified in any report. Any presentation or report of a particular classroom will aggregate all observations so that an individual teacher or instructional assistant's data will not be presented separate from the total classroom data. The principal and the teachers have been involved in the development of these teacher training plans and therefore it is reasonable that they will communicate about progress with one another.

Risks and Benefits:

The project is designed to provide coaching to teachers and instructional assistants which are well established and usual teaching procedures utilized in the classrooms. The in-classroom

prompt feedback and guidance is different from typical and usual practice but has previously been shown as effective and well received by teachers. The potential benefit from participation in this study includes improved teacher-student interactions and decreased behavior problems in the classroom. However, it is possible that these procedures may not be more effective than current usual practices. It is also possible that the teachers will feel uncomfortable with direct observation in the classroom, although previous work has shown that such discomforts are usually temporary. In fact in previous TCIT trainings teachers have reported that after being observed and receiving coaching in the classroom, the feedback received during coaching was the most valuable part of the training program. It is also possible that despite our efforts to provide support, training, continuing education and compensation for participation in the study, participants may find the time commitment longer and more demanding than anticipated. However previous experience has shown there is a high probability of teacher and instructional assistant engagement with the procedures and a positive outcome in classroom climate.

There were no adverse events to be noted from the present conduct of the study.

Reporting Procedures:

A primary objective of this project is to offer a universal prevention program for behavior problems. We expect to provide the school district with the results of the intervention and if the results are positive to consider expansion of the program to other preschool and kindergarten classrooms in the school district.

At the conclusion of the study, Dr. Stokes will also meet with the teachers and instructional assistants who participate in the research to present a summary of the research and answer any questions they may have at that time. In sharing the results with school personnel, we will not report results for any specific teacher or child, but rather across the groups, in order to protect the confidentiality of the participants. Dr. Stokes will also meet with the school Principal and report results to her, without any discussion of the results of individual teachers or classroom assistants.

The results of this research will be submitted for presentation at professional meetings and for publication and distribution for educational purposes. This may include sharing outcome

data in published research and program articles, conference presentations, and presentations with schools and consumer groups. The results of this project will be coded in such a way that participants' identities will never be revealed in any presentation or publication.

Data obtained from this study may also be reported in grant applications to local, state, and federal programs.

Experience of the researchers:

The Principal Investigator, Dr. Stokes, and the Co Principal-Investigator, Dr. Budd each have over thirty years experience as university professors and as consultants in clinical psychology and in the schools. Dr. Budd is the developer of TCIT and has extensive experience in its implementation in urban and rural settings. Dr. Budd is the Director of the Clinical Psychology Doctoral Training Program at De Paul University. Over the past 20 years, Dr. Stokes has engaged in professional activities involving two days a week providing consultation to teachers and principals in schools. Dr. Stokes is the Director of the Alvin V. Baird Attention and Learning Disabilities Center in the Institute for Innovation in Health and Human Services at JMU. Drs. Stokes and Budd have a 35 year history as collaborators conducting professional, academic and research projects. The ~~eight~~ fourteen students who will participate in the research have been working with Dr. Stokes and Jessica Rossi (JMU doctoral student) in the Fall of 2012, meeting at least 3 hours per week to develop the research and observation protocols for this study.

Additional Attachments as applicable:

Teacher consent form

Teacher and instructional assistant information form

Parent information letter

DECA

DESSA (to be submitted)

Teacher training evaluation form

Teacher and Child Behavior observation definitions

Letter of Permission from School District (to be submitted)



Consent to Participate in Research

Teacher Child Interaction Training for Prevention of Behavior Problems in Preschool and Kindergarten Settings

Principal Investigator: Trevor Stokes, Ph.D.

225 Blue Ridge Hall, James Madison University

Harrisonburg, VA 22807

(540) 568 – 8829

stokestf@jmu.edu

Purpose of Study

The purpose of this study is to implement Teacher Child Interaction Training in preschool and kindergarten classrooms, by using in-vivo coaching of skills (1) to equip teachers and instructional assistants with skills in positive attention and consistent discipline, such that they can confidently handle child behavior challenges in their classrooms, and (2) to increase children's social-emotional adjustment through positive teacher-child interactions, thereby enhancing children's behavioral and academic success in school.

Should you decide to participate in this research study, you will be asked to sign this consent form once all your questions have been answered to your satisfaction.

Research Procedures

In the proposed study, ~~two~~ teachers and ~~three~~ instructional assistants from preschool and kindergarten classrooms and their students will participate in the TCIT program during 2013. Teacher-Child Interaction Training (TCIT) is a structured curriculum that builds positive teacher-child relationships. In TCIT, teachers and instructional assistants participate in workshops and in-class coaching sessions to learn skills in providing positive, responsive attention to children as well as behavior management techniques. The skills taught are well-

established methods of enhancing children's behavior. Specifically, teachers and instructional assistants are taught 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 to evaluate the effectiveness of intervention.

For each classroom, the primary teacher and ~~one or two~~ instructional assistants will participate in 35 workshop sessions, on designated teacher training days. As part of the collaborative assessment, teachers and instructional assistants will be asked to evaluate children's behavior using the Devereux assessments up to six times over the course of the study and follow-up. They will also be asked to complete brief classroom practice assignments, a teacher information form and provide consumer satisfaction evaluations of the program. Teachers and instructional assistants will receive continuing education credits for participating in the workshops and coaching and will be paid a small honorarium (\$250) for their participation and assistance in evaluation. There will be a celebratory graduation session at the end of training.

Dr. Trevor Stokes, of JMU, and Dr. Karen Budd, of DePaul University in Chicago, will serve as coaches, conducting the workshops and offering feedback in the classroom. Coaching may also be provided by peer teachers and an advanced doctoral student from JMU. Coaches will use didactic instruction, discussion, modeling, role-plays, and handouts as teaching techniques. Interspersed with workshop sessions, teachers and instructional assistants will receive individualized coaching on their skills 1-2 times per week during in-class practice sessions when coaches observe and provide prompt, supportive feedback to refine teaching skills. Twenty minute sessions of observation and coaching will be conducted in the classroom with each teacher and instructional assistant, in a manner allowing brief feedback while not interfering with the flow of classroom activities and interactions with children.

Observations of teachers, instructional assistants and children in their classrooms will be collected 1 to 4 days a week for the duration of the study. Two or three trained graduate and undergraduate student research assistants from JMU will be present in the ~~two~~ classrooms without participating in ongoing activities. These personnel will be supervised by Dr. Stokes and will adhere to all school and classroom rules. Outcome measures include: (a) observations of teachers' and instructional assistants' behavior in the classroom; (b) observations of children's behavior in the classroom; (c) and teachers' and instructional assistants ratings of children's behavior on the Devereux Assessments at baseline, at the beginning of each coaching phase, at the end of coaching, and at a 3-6 month follow-up. To protect confidentiality, teachers,

instructional assistants and children will be identified only by randomized code numbers and no data sheets will have any names of participants. No information that could identify individuals will be included in any reports or discussions related to this research, including any discussion at the school approved by the Principal.

The training intervention will be introduced sequentially in the first classroom or skill set while no changes are implemented in the second classroom or skill set. Subsequent delayed intervention in the second classroom or skill set replicates the effects of changes in the first classroom or first skill set.

Time Required

Data collection for baselines will begin in January, 2013. For each classroom, the teacher and instructional assistant(s) will participate in 3-5 workshop sessions, on designated teacher training days. For each team of classroom personnel, Child Directed Interaction (CDI) procedures will be introduced ~~at one~~ during two training days, Teacher Directed Interaction (TDI) training will be introduced ~~at the~~ during two subsequent teacher training days a month or two later, and there will be a graduation session to review the program, to receive feedback, and to congratulate participation on the fifth training day a few months later. Training workshops will be conducted in about two hours. There may be brief follow up sessions with the teachers and teacher assistants to answer questions subsequent to the training workshops.

Coaching sessions after training days are usually 20 minutes in length, and will occur about 12 times per teacher and instructional assistant. As part of the collaborative assessment, teachers and instructional assistants will be asked to evaluate children's behavior using the Devereux Assessments up to six times over the course of the study and follow-up. They will also complete a teacher information form and provide consumer satisfaction evaluations of the program. Time involvement for the completion of evaluations and forms will vary from 10 to 20 hours total over the course of the study, which will run from January to ~~June~~ November. Teachers and instructional assistants will also be asked to complete brief classroom "homework" practice exercises designed to take 5 minutes each and occur daily over the course of TCIT, which totals a maximum of 25 minutes per week over eight weeks.

For participating in the study and for assisting with the students' evaluations, the teachers and instructional assistants in each classroom will receive continuing education credits and an honorarium of \$250. In June of 2013

Risks and Benefits

The investigator does not perceive more than minimal risks from your involvement in this study. We expect that results may show teachers' increased positive interactions with students, decreased negative interactions with students and students' decreased behavior concerns.

The project is designed to provide supplemental coaching to teachers and instructional assistants which is additive to the standard teaching procedures utilized in the classrooms. The potential benefit from participation in this study includes improved teacher-student interactions and decreased behavior problems in the classroom. However, it is possible that these procedures may not be more effective than current usual practices. It is also possible that despite our efforts to provide support, training, continuing education and compensation for participation in the study, participants may find the time commitment longer and more demanding than anticipated.

Confidentiality

In order to protect confidentiality, teachers, instructional assistants and children will be identified only by randomized code numbers. No data sheets will ever show any names of the participants. No information that could identify individuals will be included in any reports or discussions related to this research, including any discussion at the school approved by the Principal. Data sheets and their summary information will be transported to the Baird Center at JMU for storage in Center computers secured with passwords. Original data sheets will be secured in locked filing cabinets in locked rooms at the Baird. Only members of the research team will have access to the data.

There will be no data sheets or computer records anywhere which will have any identifying information. The data will always be coded by number only. The teachers will maintain a list of names cross-linked to the randomized numbers. This teacher record will never leave the classroom and will be destroyed at the end of the study.

The information from the Teacher and Instructional Assistant Information Form will be aggregated across the participants. There is no personal identifying information on the form.

A primary objective of this project is to offer a universal prevention program for behavior problems. We expect to provide the school district with the results of the intervention and if the

results are positive to consider expansion of the program to other preschool classrooms in the school district.

At the conclusion of the study, Dr. Stokes will also meet with the teachers and instructional assistants who participate in the research to present a summary of the research and answer any questions they may have at that time. In sharing the results with school personnel, we will not report results for any specific teacher or child, but rather across the groups, in order to protect the confidentiality of the participants.

The results of this research will be submitted for presentation at professional meetings and for publication and distribution for educational purposes. This may include sharing outcome data in published research and program articles, conference presentations, and presentations with schools and consumer groups. The results of this project will be coded in such a way that participants' identities will never be revealed in any presentation or publication.

Data obtained from this study may also be reported in grant applications to local, state, and federal programs.

Participation & Withdrawal

Participation in this research study is entirely voluntary; you are free to choose to participate or not to participate. Should you choose to participate, you can withdraw at any time.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Trevor Stokes, Ph.D.

225 Blue Ridge Hall

James Madison University

Harrisonburg, VA 22807

(540) 568 – 8829

stokestf@jmu.edu

Questions about Your Rights as a Research Participant

Dr. David Cockley

Chair, Institutional Review Board

James Madison University

(540) 568-2834

cocklede@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator has offered me a copy of this form.

Name of Participant (Printed)

Name of Participant (Signed)

Date

Name of Researcher (Signed)

Date

Teacher number _____
Date _____

Teacher and Instructional Assistant Information Form
Teacher Child Interaction Training (TCIT)

We ask you to provide some basic demographic information about yourself as a teacher. This information will be kept confidential. No data that can be identified with a specific teacher will be shared with the Harrisonburg schools or in any reports on the project.

1. How many total years of experience do you have working as a teacher or assistant for children between 0 and 5 years of age? Count the current year as 1 year, and add any prior years to the total. _____ years
2. How many years of experience do you have working as a teacher or assistant at this school? Count the current year as 1 year, and add any prior years to the total. _____ years
3. What is the highest level of education you have completed? Check (✓) one choice below.
 - a. Some high school _____
 - b. High school graduate or GED _____
 - c. Some college _____
 - d. Associate's degree _____
 - e. Bachelor's degree (BA or BS) _____
 - f. Some graduate courses _____
 - g. Master's degree (MA, MS, MEd, etc) _____
4. How old are you? _____ years old
5. What is your gender? Female _____ Male _____
6. What is your ethnicity? Check (✓) one choice below.
 - a. Asian or Asian American, including Chinese, Japanese, and others _____
 - b. Black or African American _____
 - c. Hispanic or Latino, including Mexican American, Central American,

and others _____

- d. White, Caucasian, Anglo, European American; not Hispanic _____
- e. American Indian/Native American _____
- f. Mixed; parents are from two different groups (see next question) _____
- g. Other (see next question) _____

7. If you chose "Mixed" or "Other" for the question above, please write in your ethnicity here.

Thank you!

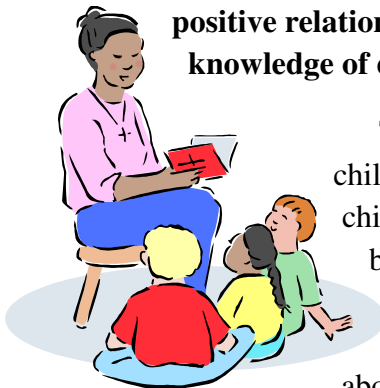


January 2013

Dear Parent,

James Madison University has invited your child's classroom teacher and instructional assistants at Spotswood Elementary School (or Stone Spring Elementary) to participate in a specialized training series over the ~~Fall and Spring~~ and Fall semesters of 2013 (~~November to June~~) 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 Spotswood Elementary School (or 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.

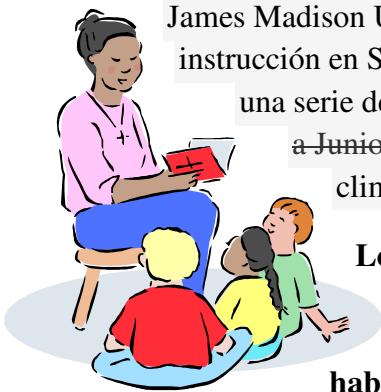
Signature of parent/guardian

Date



Estimado padre:

Enero, 2013)



James Madison University (JMU) ha invitado al maestro de su hijo y a los ayudantes de instrucción en Spotswood Elementary School (or Stone Spring Elementary) a participar en una serie de cursos especializados durante de otoño y primavera Semestre (Noviembre a Junio) la primavera y el otoño semestre , (2013) 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 evalúan 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 Spotswood Elementary (or 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

Questions from the rating scales of

The Devereux Early Childhood Assessment

(for children ages 2 through 5 years)

Paul A. LeBuffe Jack A. Naglieri

Item # 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 her/him?

2 do things for himself/herself ?

3 choose to do a task that was challenging for her/him?

4 listen to or respect others?

5 control her/his anger?

6 respond positively to adult comforting when upset?

7 participate actively in make-believe play with others (dress-up, etc.)?

8 fail to show joy or gladness at a happy occasion?

9 touch children/adults inappropriately?

10 show affection for familiar adults?

11 have temper tantrums?

12 keep trying when unsuccessful (act persistent)?

13 handle frustration well?

14 have no reaction to children/adults?

15 use obscene gestures or offensive language?

16 try different ways to solve a problem?

17 act happy or excited when parent/guardian returned?

18 destroy or damage property?

19 try or ask to try new things or activities?

- 20** start or organize play with other children?
- 21** show patience?
- 22** ask adults to play with or read to him/her?
- 23** have a short attention span (difficulty concentrating)?
- 24** focus his/her attention or concentrate on a task or activity?
- 25** share with other children?
- 26** fight with other children?
- 27** become upset or cry easily?
- 28** say positive things about the future (act optimistic)?
- 29** trust familiar adults and believe what they say?
- 30** accept another choice when her/his first choice was unavailable?
- 31** seek help from children/adults when necessary?
- 32** ask other children to play with him/her?
- 33** cooperate with others?
- 34** calm herself/himself down when upset?
- 35** get easily distracted?
- 36** make decisions for himself/herself ?
- 37** show an interest in what children/adults are doing

A copy of the Devereux Student Strength Assessment (DESSA) will be forwarded to the IRB.

Teacher-Child Interaction Training Evaluation Form
Harrisonburg

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

Date: _____

Training Phase: **CDI Workshop** **CDI Coach**
 TDI Workshon **TDI Coach**

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. These sessions made me feel better able to communicate with the children in my room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. These sessions made me feel better able to control and discipline the children in my room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The activities helped me learn the material presented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The trainers were knowledgeable and experienced in the topic covered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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:

TCIT Behavior Definitions (adapted from DPICS)**TEACHER BEHAVIORS**

NEGATIVE TALK (NTA) is 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.

DIRECT COMMAND (DC) is a declarative statements that contain an order or direction for a vocal or motor behavior to be performed and indicate that the child is to perform this behavior.

INDIRECT COMMAND (IC) is a suggestion for a vocal or motor behavior to be performed that is implied or stated in question form.

LABELED PRAISE (LP) provides a positive evaluation of a specific behavior, activity, or product of the child.

UNLABELED PRAISE (UP) provides a positive evaluation of the child, an attribute of the child, or a nonspecific activity, behavior, or product of the child.

QUESTION (QU) is a verbal inquiry that is distinguishable from a declarative statements 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. There are two types of questions in the DPICS, but in TCIT, Information Questions are combined with Descriptive Questions to create a composite Question Category (QU).

In the research continuation, there will be a distinction made between unnecessary questions and questions which are academically and procedurally relevant and important because the intervention targets a decrease in unnecessary questions yet the coding system has not yet made these distinctions in the data. This would be a useful addition to the procedures and outcome monitoring.

REFLECTIVE STATEMENT (RF) is 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.

BEHAVIORAL DESCRIPTION (BD) is a non-evaluative, declarative sentences or phrases 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.

POSITIVE TOUCH (PTO) is any intentional positive physical contact between teacher and child.

CHILD BEHAVIORS

YELLING (Y) is 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 (D) is 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 (A) includes fighting, kicking, slapping, hitting, grabbing an object roughly from another person, or threatening (verbally) to do any of the preceding.

COMPLIANCE (CO) occurs when the child performs, begins to perform, or attempts to perform a behavior requested by the teacher within the 5-second interval following the command.

NONCOMPLIANCE (NC) is coded following a Direct or Indirect Command given the teacher when the child does not perform, attempt to perform, or stops attempting to perform the requested behavior within the 5-second interval following the command.

NO OPPORTUNITY FOR COMPLIANCE (NOC) is coded when the child is not given an adequate chance to comply with a command.

ANSWER TO QUESTIONS (AN) is a verbal or nonverbal response to an Information Question that provides or attempts to provide the information requested in the question.

NO ANSWER TO QUESTION (NA) occurs when the child does not attempt to provide the information requested in the question

NO OPPORTUNITY TO ANSWER (NOA) is coded when the child does not have an adequate chance to provide the information requested by a teacher in an Information Question

Site Coordinator Letter of Permission

November, 2012

Institutional Review Board

James Madison University

MSC 5728

JMAC-6, Suite 26

Harrisonburg, VA 22807

Dear Institutional Review Board,

I hereby agree to allow Dr. Trevor Stokes, from James Madison University to conduct his research at Spotswood Elementary School, Harrisonburg. I understand that the purpose of the study is to engage in a collaborative assessment of a program to provide training and in-classroom coaching of teachers to equip teachers with skills in positive attention and consistent discipline and to increase children's social-emotional adjustment through positive teacher-child interactions, thereby enhancing children's behavioral and academic success in school.

By signing this letter of permission, I am agreeing to the following:

JMU researcher(s) have permission to be on Spotswood Elementary School premises.

JMU researcher(s) have unrestricted access to the data collected to perform the data analysis both for presentation to Harrisonburg City Public Schools and/or for publication purposes.

Sincerely,

Name of Authorized Individual, Title

Name of Off-site Location

A new letter will be completed by the Harrisonburg City Schools representative

Appendix B

	Approximate Time	Observer A	Observer B
1	8:55-8:57	241 640	241 640
2	8:58-9:00	134 245	134 245
3	9:01-9:03	791 121	791 121
4	9:04-9:06	133 623	133 623
5	9:07-9:09	143 925	143 925
6	9:10--9:12	031 975	031 975
7	9:13-9:15	041 937	041 937
8	9:16-9:18	791 121	791 121
9	9:19-9:21	081 333	
10	9:22-9:24	012 224	122 496
11	9:25-9:27		791 121
12	9:28-9:30	241 640	
13	9:31-9:33	134 245	131 902
14	9:34-9:36		
15	9:37-9:39	121 517	021 846
16	9:40-9:42	791 121	
17	9:43-9:45	122 496	133 623
18	9:46-9:48	131 902	143 925
19	9:49-9:51	031 975	011 896
20	9:52-9:54	012 224	012 224
21	9:55-9:57	141 748	141 748
22	9:58-10:00	021 846	021 846

23	10:01-10:03	041 937	041 937
24	10:04-10:06	121 517	121 517
25	10:07-10:09	791 121	791 121
26	10:10-10:12	081 333	081 333
27	10:13-10:15	011 896	011 896

Appendix C

TEACHER-CHILD INTERACTION TRAINING

Child Directed Interaction Overview

PRIDE RULES	REASON	EXAMPLES
<p>PRAISE appropriate behavior</p> <p style="text-align: center;">P</p>	<ul style="list-style-type: none"> • 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. 	<p>Good job putting the toys away!</p> <p>I like the way you're playing so gently with the toys.</p> <p>Great idea to make a fence for the horses.</p> <p>Thank you for sharing with me.</p>
<p>REFLECT appropriate talk</p> <p style="text-align: center;">R</p>	<ul style="list-style-type: none"> • 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. 	<p>Child: I drew a tree.</p> <p>Teacher: Yes, you made a tree.</p> <p>Child: The doggy has a black nose.</p> <p>Teacher: The dog's nose is black.</p> <p>Child: I like to play with the blocks.</p> <p>Teacher: These blocks are fun.</p>

<p>IMITATE appropriate play</p> <p style="text-align: center;">I</p>	<ul style="list-style-type: none"> • 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. 	<p>Child: I put a nose on the potato head.</p> <p>Teacher: I'm putting a nose on Mr. Potato Head too.</p> <p>Child: (drawing circles on a piece of paper).</p> <p>Teacher: I'm going to draw circles on my paper just like you.</p>
<p>DESCRIBE appropriate behavior</p> <p style="text-align: center;">D</p>	<ul style="list-style-type: none"> • 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. 	<p>You're making a tower.</p> <p>You drew a square.</p> <p>You are putting together Mr. Potato Head.</p> <p>You put the girl inside the fire truck.</p>
<p>ENJOY</p> <p style="text-align: center;">E</p>	<ul style="list-style-type: none"> • Lets child know that you are enjoying the interaction. • Increases the warmth of the play. • Keeps the child interested. 	<p>Child: (carefully placing a blue Lego on a tower).</p> <p>Teacher: (gently touching the child's back) You are REALLY being gentle with the toys.</p>

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TEACHER-CHILD INTERACTION TRAINING

Child Directed Interaction Overview

MORE RULES	REASON	EXAMPLES
<p>Reduce unnecessary COMMANDS</p>	<ul style="list-style-type: none"> • Takes the lead away from child. • Can cause unpleasantness. 	<p><u>Indirect Commands:</u></p> <p>Let's play with the farm next.</p> <p>Could you tell me what animal this is?</p> <p><u>Direct Commands:</u></p> <p>Give me the pigs.</p> <p>Settle down.</p> <p>Look at this.</p>
<p>Reduce unnecessary and "rapid-fire" QUESTIONS</p>	<ul style="list-style-type: none"> • 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. 	<p>We're building a tall tower, aren't we?</p> <p>What's this? What's this?</p> <p>What are you building?</p>

		<p>Do you want to play with the train?</p> <p>You're putting the girl in the red car? How come?</p>
<p>Avoid NEGATIVE TALK and sarcasm, and reduce corrections</p>	<ul style="list-style-type: none"> • Often increases the criticized behavior. • May lower child's self-esteem. • Creates an unpleasant interaction. 	<p>That wasn't nice.</p> <p>I don't like it when you make that face.</p> <p>Do not play like that.</p> <p>No, sweetie, you shouldn't do that.</p> <p>The animal doesn't go there.</p> <p>Now that was smart! (said when child drops toy)</p> <p>No, not the yellow one.</p>

TEACHER-CHILD INTERACTION TRAINING

Child Directed Interaction Overview

BEHAVIOR MANAGEMENT	REASON	EXAMPLES
<p>IGNORE negative behavior (unless it is dangerous, destructive, or negatively impacting other children)</p> <p>a. Avoid looking at the child, smiling, frowning, etc.</p> <p>b. Be silent.</p> <p>c. Ignore <u>every time</u>.</p> <p>d. Expect the ignored behavior to increase at first.</p> <p>e. Continue ignoring until child is doing something appropriate.</p> <p>f. Praise child immediately for behavior that is opposite the annoying behavior.</p>	<ul style="list-style-type: none"> • 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. 	<p>Child: (talks back to teacher and picks up toy).</p> <p>Teacher: (ignores talking back) Thank you for picking up the toy.</p> <p>Child: (pushing too hard on a crayon)</p> <p>Teacher: (ignores behavior until it stops and then praises child) Good job using the crayon carefully.</p> <p>Child: Look Ms. Vikki! Look Ms. Vikki! Look Ms. Vikki! (continues)</p> <p>Teacher: (looks away as if nothing happened)</p> <p>Child: (finally stops)</p> <p>Teacher: I like it that you are being quiet now.</p> <p>Child: (Whining)</p> <p>Teacher: (ignores whining and talks to self or other child until</p>

		<p>whining stops) I can see that you have your paper and crayons on the table and are ready to color!</p> <p>Child: (Jumping around in line)</p> <p>Teacher: (ignores jumping and says to child who is <u>not</u> moving) Wow, I really like how you are standing still in line.</p>
<p>STOP THE PLAY for aggressive and destructive behavior.</p>	<ul style="list-style-type: none"> • Teaches the child that good behavior is required in order to be able to play with you. • Shows child that you are setting limits. 	<p>Child: (hits teacher).</p> <p>Teacher: (This can't be ignored.) Our playtime is stopping because you hit me.</p> <p>Child: Oh, oh, oh teacher I'm sorry. Please, I'll be good.</p> <p>Teacher: Our playtime is over now.</p> <p>Maybe next time you will be able to play nicely.</p>

How to Create Great Labeled Praises

WAYS TO PRAISE IT . . .

That's a great way to . . .

You're doing a nice job of . . .

I like it when you . . .

It's neat that you remembered to . . .

What a wonderful idea to . . .

Thank you for . . .

Nice job of . . .

How sweet of you to . . .

You should be proud of yourself for . . .

I'm so happy with you for . . .

You are so polite to . . .

Good . . .

I like it when you . . .

It's nice that you are . . .

It's so cool that you're . . .

PRAISABLE BEHAVIORS . . .

Play gently with the toys

Using your indoor voice

Share

Draw a picture for friend/family

Say please, thank you (manners)

Sitting still

Following directions right away

Make one for me too

Working on task

Keeping on trying

Help a friend

Listening

Use your walking feet

Sitting at the table with me

Putting the toys away all by yourself

Practice on Discriminating Labeled and Unlabeled Praise

Are the following statements unlabeled praise (UP) or labeled praise (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 unlabeled praises into labeled praises?

Nice job! _____

I am proud of you. _____

You make me happy. _____

Correct! _____

You deserve a gold star. _____

Descriptions

A **behavioral description** is a statement saying exactly what the child is doing. It is giving a play-by-play 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 before 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.
	Strengthens the behavior described.	You are drawing carefully.

Practice on Descriptions

Which of the following statements are behavioral descriptions?

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 descriptions 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. _____

Reflections

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

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

Extension:

Child: I drew a house.

Teacher: You drew a house on your paper.

Shortening:

Child: I drew a house.

Teacher: A house.

Elaboration:

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.	Child: I spelled my name. Teacher: Yes, you wrote John.
	Shows child you're listening.	Child: The camel got bumps on top. Teacher: It has two humps on its back.
	Demonstrates acceptance and understanding.	Child: I like to play with this castle. Teacher: This is a fun castle to play with.
	Improves child's speech and vocabulary.	
	Reinforces and increases verbal communication.	

Practice on Reflections

Of the following, which are reflections?

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 reflections?

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: _____

Thoughtful Questions

We use Questions in many different ways with children. Some Questions are useful, 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.

- ◆ Questions that ask for information -- who, what, where, when, how?

Examples:	“What color is this?”	“Where are you supposed to be now?”	“How many sticks am I holding up?”
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- ◆ Unintentional Questions -- 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?"
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◆ Questions that are really hidden commands.

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.

◆ Questions that help teach a concept or check for understanding.

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?"
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◆ Questions to obtain information.

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?"
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Drawbacks of some types of Questions:

- ◆ Some Questions suggest disapproval.

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?”
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- ◆ Some Questions suggest that you are not really listening 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?"
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- ◆ 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?"
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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.
Why did the girl start crying? (during a story)	I wonder why the girl is crying.

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 Thoughtful Questions

How could you turn the following Questions into statements?

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

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

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

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

-
10. Child: I like ice cream.
Teacher: You like ice cream?
-

Questions can be valuable for obtaining information, helping to teach a concept, or checking for understanding. (For example, "Would you like juice or milk?", "Who can find the bird in this picture?") These questions are fine, but keep in mind that there are also other ways teachers can accomplish these goals.

11. How else can you inquire about what the child thinks will happen next in a story without asking a question?
-

12. How might you find out if a child to complete a worksheet he has started without asking him a question?

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.

Eight Components of Effective Commands

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	Use your quiet voice inside.	Settle down.

vague	Turn on the water slowly. Please look at me.	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	<ul style="list-style-type: none"> • Allows the child to establish a connection between his/her actions and the praise • Increases the likelihood of compliance with future commands 	<p>Thank you for listening!</p> <p>I like it that you did what I asked so quickly.</p>
Repeat the command <u>one</u> time if needed (after 5 seconds)	<ul style="list-style-type: none"> • 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 	<p>Please put your plate in the garbage.</p> <p>(after 5 seconds:)</p> <p>Please put your plate in the garbage.</p>
Provide gentle physical guidance as a prompt (after 5 seconds)	<ul style="list-style-type: none"> • Provides the child a cue to begin the requested behavior • Helps direct the child to what is expected • Particularly useful for children with attentional 	<p>Put the crayons in the box.</p> <p>(after 5 seconds, hand the child the crayon box)</p>

	difficulties or those still learning how to comply	Get your boots from your cubbie. (after 5 seconds, point to the child's cubbie)
Provide logical consequences	<ul style="list-style-type: none"> • 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.

**Teacher-Child Interaction Training -- JMU/DePaul
CDI Homework Week #1**

Please practice using the PRIDE skills during one, 5-minute activity each day in your classroom. For this week, try to focus your attention during this 5 minutes on an individual child if possible. Make notes of how the practice went in the table below.

Teacher's Initial: _____ Date: _____

Day and Time	Activity	PRIDE Skills	Ignoring	Problems or Questions
Did you spend 5 minutes doing practice today? List times below.	List classroom activity and number of children involved	Provide 2-3 examples of how you used the skills (e.g. words you used)	Child behavior(s) for which ignoring used	

Appendix D

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)
 - 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”)
 - Give labeled praises for ignoring inappropriate behaviors
 - Second Coaching Session
 - 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”)
 - Focus on decreasing questions and increasing reflections
 - Praise every reflection the teacher gives
 - 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
 - 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”)
 - Focus on increasing teachers’ labeled praise
 - 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.