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Teacher Child Interaction Training (TCIT) creates a positive classroom environment: Improving attachment and management of child behavior problems

Kara Devers
James Madison University

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Teacher Child Interaction Training (TCIT) Creates a Positive Classroom Environment:
Improving Attachment and Management of Child Behavior Problems

Kara Devers

A dissertation submitted to the Graduate Faculty of
JAMES MADISON UNIVERSITY

In
Partial Fulfillment of the Requirements
for the degree of
Doctor of Psychology

Combined-Integrative Program

August 2014
Acknowledgements

I would like to thank the teachers and administrators of the elementary school in Virginia, who dedicated their time and commitment to this project. Although they are not named because of confidentiality guidelines, it is important to note that their enthusiasm and support facilitated the successful conclusion of this research.

I would like to recognize my advisor and chair, Dr. Trevor Stokes, without whose gentle guidance, generosity, and expertise I would never have realized what I could accomplish. Thanks to my committee members, Drs. Debi Kipps-Vaughan and Elena Savina. This project could not have been completed without their recommendations, support, and patience. Special thanks to Dr. Karen Budd for her development of the prevention model of TCIT, as well as for her consultation throughout the continuation of our study. Thanks also to Lauren Legato for sharing her expertise on DECA analysis.

This research could not have been completed without the participation of several research assistants who committed their time and dedication. These individuals include Kristin Maroletti, Maegan Pisman, Kristen Rollman, Sarah Vasquez, and Heather White. Special thanks to Chelsea Rainear, who assisted with many of the administrative details of the project.

I would like to thank my parents for supporting me in pursuing higher education, as well as the other professors, mentors, and supervisors, whose guidance and support has brought me to this point in my academic career. Finally, I never would have succeeded in this project without the consistent encouragement, support, and breakfast burritos from Ryan Fawley, whose name should also be on my degree when I graduate.
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Abstract

By improving the quality of early teacher-child relationships, a child may improve his socio-emotional competence and decrease problem behaviors. Teacher Child Interaction Training (TCIT), adapted from Parent Child Interaction Therapy (PCIT), is a school-based prevention program in which teachers are taught to use the principles of learning and behavior management in the classroom to enhance positive interactions and attachment, and to prevent and reduce problem behaviors in young children. In the present study, changes in teacher and child behavior were experimentally analyzed within a multiple-baseline design across two classrooms with five teachers and thirty nine preschool children. Teacher and child behavior were measured through behavioral observations and clinical rating scales. Systematic visual analyses of the graphs of the repeated measures in time series demonstrated that the teachers increased their positive attention skills and the children decreased disruptive behavior. Results of repeated-measures ANOVAs indicated significant positive changes in children’s behavior as rated by the teachers. Furthermore, teachers’ ratings correlated significantly with behavioral observations, supporting the validity of the clinical ratings measure. This study supports TCIT’s use as a method to increase positive interactions between teachers and students, and as a universal prevention program for behavior problems in preschool classrooms.
Teacher Child Interaction Training (TCIT) Creates a Positive Classroom Environment: Improving Attachment and Management of Child Behavior Problems

The adage states that it takes a village to raise a child. Certainly, positive relationships with important figures in a child’s life have lasting effects on the child’s social and emotional well-being (Noam & Fiore, 2004). Whereas parents are central figures in their children’s lives, positive interactions with other adults can also serve as protective factors in a child’s development. Namely, supportive teacher relationships can have a positive impact on a child’s school experience and promote improved social and academic outcomes. By improving the quality of teacher relationships in a child’s academic life, a child may well improve his socio-emotional competence and decrease problem behaviors. This study sought to replicate earlier findings (Lyon, Gershenson, Farahmand, Thaxter, Behling, & Budd, 2009) that teachers could be successfully coached in promoting a more positive classroom environment. Additionally, the current study attempted to capture any adjustment in the children’s behavior as a result of the teacher behavior changes.

The Importance of Positive Adult-child Interactions

Developmental psychopathology research, in conjunction with literature on attachment and resiliency, repeatedly attests to the impact of a child’s relationships with important adults in their lives (Noam & Fiore, 2004). A nurturing parent-child relationship is one of the strongest protective factors associated with children’s resilience (Gardner, 1987; Webster-Stratton, 1985; Webster-Stratton & Fjone, 1989), capable of building children’s emotional regulation, ability to manage conflict, and school readiness (Webster-Stratton & Reid, 2006) and mediating change in children’s conduct problems (Gardner, Burton, & Klimes, 2006). According to the National Institute of Child Health
and Human Development’s longitudinal study of more than 1000 children entering school, positive mother-child relationships are the most common and strongest predictor of social and academic outcomes in the early school period (NICHD, 2002).

Whereas positive adult-child relationships can positively impact multiple facets of child development, the opposite is also true: negative relationships are highly correlated with undesirable child outcomes, such as low social and emotional competence, poor academic functioning and behavior problems. Poor quality parent-child relationships, such as those impacted by parent stress or psychopathology, for example, is associated with future child educational, behavioral, social, and legal difficulties (Barbarin, Bryant, McCandies, Burchinal, Early, Clifford, Pianta, & Howes, 2006; Mowbray, Bybee, Oyserman, MacFarlane, & Bowersox, 2006; Graham-Bermann, & Levendosky, 1997). A lower quality of parent-child attachment predicted higher levels of parent-rated aggression, social stress and lower levels of self-esteem in young boys (Ooi, Ang, Fung, Wong, & Cai, 2006). Furthermore, poor relationships, most strongly with the mother, are a strong predictor of later child social and academic difficulties (Pianta & Stuhlman, 2004). Harsh, punitive, and inconsistent parenting styles are repeatedly associated with increased behavioral difficulties, including oppositional and aggressive behaviors (Cummings, 1994; Webster-Stratton & Hammond, 1999; Stormshak, Bierman, McMahon, & Lengua, 2000). Specifically, parents of children with behavior problems tend to show more negative verbal and nonverbal behaviors (Webster-Stratton & Fjone, 1989), and give more commands (Webster-Stratton, 1985). In general, it is well-accepted that a child’s social emotional competence within the context of the early parent
relationship has strong implications for the child’s later mental health and academic achievement.

Theories on attachment styles, relational schemas, and internal working models suggest that the behaviors present within the parent-child relationship tend to emerge within other relational contexts (Pianta, Nimetz, & Bennett, 1997). Increasingly, evidence indicates that supportive non-parental adult relationships promote children’s psychological health and improve academic outcomes (as described in Spencer, Jordan, & Sanzama, 2002; Noam & Fiore, 2004). Children exposed to risk factors as diverse as parent mental illness, low socioeconomic status, and maltreatment have been shown to benefit from a relationship with a caring adult (Rhodes, Grossman, & Resch, 2000; Hughes, Cavell, & Jackson, 1999; Noam & Fiore, 2004).

When children are young, a vast majority of their time is spent with parents and teachers. Perhaps it is not surprising that supportive teacher-child relationships also have ties to positive social outcomes and higher levels of academic engagement (Denham & Burton, 1996; Birch & Ladd, 1997). As with parents, negative teacher-child relationships can impact behavioral and academic functioning in children (Birch & Ladd, 1998). More specifically, conflict with teachers can decrease children’s prosocial behavior, increase school avoidance, and interfere with academic performance (Birch & Ladd, 1997). Pianta and his colleagues have observed that the relational quality of early teacher-child interactions can have long-term implications for children’s school attachment and success (Pianta, Hamre, & Stuhlman, 2003). For example, the quality of teacher-child relationship (especially conflict therein) was associated with childrens’ levels of social and academic skills (Pianta & Stuhlman, 2004). Negative early relationships with
teachers have been linked to academic and behavioral outcomes through 8th grade, particularly for boys and children with high levels of behavior problems (Hamre & Pianta, 2001).

A child’s early years (birth through five years of age) represent a pivotal stage of development when adult-child relationships can have a significant impact on emerging social, behavioral, and school readiness skills. Improving the relational abilities of key figures in a child’s life is an important target for decreasing behavior problems and improving child outcomes. Therefore, prevention and early intervention programs that target the teacher-child relationship may improve a child’s social, behavioral and academic development (Driscoll & Pianta, 2010).

**Interventions for Social-Emotional Competence and Behavior Problems**

Social competence can be described as a child’s ability to successfully navigate interpersonal relationships to achieve goals and to get along well with adults and peers (McCabe & Altamura, 2011). Social competence is associated with emotional competence because there are often emotional reactions in social relationships. A child’s abilities to recognize and regulate emotions in themselves as well as determine the causes of and respond prosocially to emotions in others, often determines their success in interpersonal relationships (McCabe & Altamura, 2011). In an academic setting, social competence may be reflected in a child’s level of classroom engagement. A preschooler’s social-emotional competence may be demonstrated by compliance with commands, ability to give and receive affection, and demonstrating a level of initiative by not being dependent on or avoidant of others (Waters & Sroufe, 1983). Lack of these early competencies will likely interfere with social opportunities, such as participation in
games and developing friendships. Further, social skills deficits and poor emotion regulation are contributing factors to later emotional and behavior problems (McCabe & Altamura, 2011).

As many as one in five preschool children experience a mental health problem; however, less than 10% of those children are referred for services (Egger & Angold, 2006). Whereas some children identified with poor social and behavioral skills will “grow out” of their difficulties, many continue to demonstrate emotional and behavior problems for years to follow (Campbell, 1995; Lavigne, et al., 1998; Shaw, Gilliom, & Giovannelli, 2000; Hamre & Pianta, 2001). Moreland and Dumas (2008) suggest that early disruptive behavior can have a chronic trajectory, with negative outcomes extending into adulthood. Thus, many prevention and early intervention programs target preschool children to offset some of these developing difficulties and promote more adaptive living skills.

In planning interventions with children, those that are offered as early as possible and target multiple areas of the child’s life tend to be the most effective. Many intervention programs consider multiple systems of influence in a child’s life, including family, school and community. Educational institutions are increasingly being included in prevention and early intervention efforts, given the schools’ capacity to access a large number of children, thus increasing cost-effectiveness. A school component within a multi-systemic intervention can therefore increase access to children who are not otherwise receiving services, while also increasing cost-effectiveness.

In general, there are several empirically-supported interventions designed to improve social and emotional competence in preschool children (McCabe & Altamura,
2011), and treat disruptive behavior problems (Eyberg, Nelson, & Boggs, 2008; Shriver & Allen, 2008). McCabe and Altamura (2011) determined intervention programs to be “empirically valid” based on evidence of effectiveness (e.g. moderate effect size).

Eyberg and colleagues designated a “well-established” or “probably efficacious” status based on criteria set forth by the APA’s task force (Eyberg, et al., 2008). Two programs emerged across reviews as evidence based treatments to both increase social emotional competence and decrease behavior problems: The Incredible Years (Webster-Stratton & Reid, 2003) and Parent-Child Interaction Therapy (PCIT; Brinkmeyer & Eyberg, 2003). The two programs have much in common: both utilize a two-phase treatment model (Hanf, 1969; Reitman & McMahon, 2013), include parent behavioral training (e.g. positive attention skills), measure change through a combination of observation coding and clinical scales, and report similar outcomes (e.g. more positive parenting, less child noncompliance and aggression) which are maintained at 1- and 2- year follow-ups (e.g. Reid, Webster-Stratton, & Hammond, 2003; Boggs, et al., 2004).

The Incredible Years consists of programs for children, parents, and teachers, all of which have been tested separately as well as in various combinations (see Webster-Stratton & Reid, 2001, for an overview). Webster-Stratton and her colleagues have developed an extensive research program, documenting success across a wide range of ages, settings, and caregivers (Webster-Stratton & Reid, 2010). However, no two independent investigators have demonstrated efficacy in separate studies (Eyberg, et al., 2008), suggesting that the findings may not be easily replicated. The teacher training component was considered “possibly efficacious” in combination with parent and child programs, but was not empirically supported as a stand-alone intervention (Eyberg, et al.,
This finding suggests that, against expectations, the additional teacher component does not serve to enhance the existing child and parent programs. Campbell (2011) highlighted several limitations to implementing the teacher program, including: high cost, large-group format for educator training (preventing individualized instruction and in-vivo coaching), and infrequent trainings.

On the other hand, Parent-Child Interaction Therapy has received consistently positive reviews (Shriver & Allen, 2008; Eyberg, et al., 2008). Integrating attachment theory with social learning and resilience theories, and blending behavioral and play therapy approaches, Parent-Child Interaction Therapy (PCIT) strives to promote an authoritative parenting style (Baumrind, 1967), including parental warmth and reflection of child’s feelings and needs, as well as clear directives with follow through. The two phases of PCIT include Child-Directed Interaction (CDI), followed by Parent-directed Interaction (PDI). The focus of CDI is to strengthen the parent-child relationship through child-directed play. Coaches assist parents in building specific skills, called PRIDE skills (see Table 1), and reducing directives, such as commands and questions. Using the Dyadic Parent-child Interactional Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2009), interactions are coded for five minutes and parents are expected to reach

<table>
<thead>
<tr>
<th>PRIDE skills in Parent-Child Interaction Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Praise</td>
</tr>
<tr>
<td>Encouraging prosocial behavior by verbally recognizing child’s actions</td>
</tr>
<tr>
<td>Reflection</td>
</tr>
<tr>
<td>Increasing engagement by actively listening and reflecting content of what child says</td>
</tr>
<tr>
<td>Imitation</td>
</tr>
<tr>
<td>Perpetuating behaviors and promoting cooperation by performing same action as child</td>
</tr>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Demonstrating interest in child’s activities by labeling his behaviors</td>
</tr>
<tr>
<td>Enthusiasm</td>
</tr>
<tr>
<td>Communicating enjoyment and child interest by smiling frequently and using vocal inflections</td>
</tr>
</tbody>
</table>
mastery level in these skills before moving onto PDI. PDI focuses on parents providing clear commands and improving child compliance. Designed for intervention with children between 2 and 7 years of age, PCIT has been adapted for a number of childhood disorders based on its extensive empirical support for childhood behavior problems (Zisser & Eyberg, 2010), and has more recently been adapted for the classroom.

**Teacher-Child Interaction Training**

Given the success of PCIT in promoting parental competence and decreasing child problem behaviors, a school-based model, Teacher-child Interaction Training (TCIT), has been developed. Early models utilizing single-case designs (McIntosh, Rizza, & Bliss, 2000; Floress & Gibson, 2007) and sequential treatment comparisons (Filcheck, McNeil, Greco, & Bernard, 2004) offered preliminary support for TCIT’s efficacy. In addition, several dissertations document TCIT prototypes (Bahl, 2000; Colbett, 2002; McIntosh, 2000). Currently, four research laboratories have been developing parallel models of TCIT: Child Mind Institute, DePaul University, University of Nebraska – Lincoln, and West Virginia University. For a comparison of the four TCIT models, see Table 2.

In many ways these models are similar, incorporating many of the classic treatment components of PCIT. Each TCIT program was implemented in preschool classrooms. As with PCIT, each model incorporated CDI and “TDI” (Teacher-Directed Interaction) phases of training and coaching. The DPICS was utilized for behavioral coding in order to capture teacher behavior changes in all of the studies (although Campbell, 2011 also used the BOPS). Lastly, in contrast to PCIT’s demonstrated efficacy with one child, all four TCIT models sought to assist teachers with changing the
<table>
<thead>
<tr>
<th>Affiliation</th>
<th>West Virginia University</th>
<th>Child Mind Institute</th>
<th>University of Nebraska-Lincoln</th>
<th>DePaul University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research design</strong></td>
<td>Randomized Control Trial</td>
<td>Concurrent Multiple Probe</td>
<td>Multiple Baseline</td>
<td>Multiple Baseline</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Intervention; “To decrease disruptive behaviors in the classroom and increase teachers’ skills in managing these classroom behaviors” (p.222).</td>
<td>Intervention; “To expand on prior studies by evaluating the efficacy of TCIT with increased fidelity to the PCIT protocol” (p. 45).</td>
<td>Intervention; “To improve social and behavioral competence for preschool children, and increase efficacy and satisfaction for preschool teachers” (Abstract).</td>
<td>Prevention; “Promoting a positive classroom environment, preventing future behavior problems and addressing current externalizing issues, and decreasing teacher burnout” (Gershenson, 2009, p. 281).</td>
</tr>
<tr>
<td><strong>Type and number of Classrooms</strong></td>
<td>Eight Head Start classrooms in Southwestern Pennsylvania (Four TCIT classrooms and three control classrooms utilized in data analysis)</td>
<td>Five day treatment classrooms in an urban, ethnically diverse, and socioeconomically disadvantaged sample</td>
<td>Six Head Start Classrooms in two counties in the Midwest</td>
<td>Four classrooms in urban, religiously-affiliated day care center in Chicago, low-SES, ethnic minority children</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td>Eight (seven for data analysis); Teachers, teacher’s assistants, and classroom volunteers participated in training and coaching activities but only primary teachers were coded</td>
<td>Five; divided into three groups (two teachers each in Groups 1 and 2, one teacher for Group 3)</td>
<td>Six; all primary teachers</td>
<td>Twelve; three teachers/aides in four classrooms</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>32; four from each classroom (25 used for data analysis, 13 treatment and 12 control)</td>
<td>Unreported</td>
<td>101</td>
<td>78 Children; with 19-21 children per classroom</td>
</tr>
<tr>
<td>Affiliation</td>
<td>West Virginia University</td>
<td>Child Mind Institute</td>
<td>University of Nebraska-Lincoln</td>
<td>DePaul University</td>
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</tr>
<tr>
<td><strong>Clinical Measures</strong></td>
<td>DPICS, REDSOCS, Teacher Rating of Class Manageability (2 time points), Time-out Log (daily)</td>
<td>DPICS, REDSOCS, Sutter-Eyberg Student Behavior Inventory (SESBI-R; Eyberg &amp; Pincus, 1999)</td>
<td>DPICS, Behavioral Observation of Preschoolers System (BOPS; Campbell, et al., 2011), Child-Behavior Checklist – Caregiver and Teacher Rating Forms (CBCL, CBCL-TRF; Achenbach &amp; Rescorla, 2000), Sutter-Eyberg Student Behavior Inventory (SESBI-R; Eyberg &amp; Pincus, 1999), Social Competence and Behavior Evaluation, Preschool Edition (SCBE; LaFreniere &amp; Dumas, 1995), The Eyberg Child Behavior Inventory (ECBI; Eyberg &amp; Pincus, 1999)</td>
<td>DPICS, Training attendance and completed homework assignments, Teacher Satisfaction Survey at the end of each training phase</td>
</tr>
<tr>
<td><strong>Behaviors observed – Teacher</strong></td>
<td>Labeled Praise, Unlabeled Praise, Reflections, Behavior Descriptions, Direct Commands, Indirect Commands, Questions, Criticism, and Effective Command Sequences</td>
<td>Labeled Praise, Unlabeled Praise, Reflections, Behavior Descriptions, Direct Commands, Indirect Commands, Questions, Criticism, and Effective Command Sequences</td>
<td>Negative Talk, Direct and Indirect Commands (Followed by Compliance, Followed by Noncompliance, Followed by No Opportunity to Comply), Information Question, Descriptive Question, Labeled Praise, Unlabeled Praise, Reflections, Behavior Descriptions, Neutral Talk</td>
<td>Labeled Praise, Unlabeled Praise, Reflections, Behavior Descriptions, Direct Commands, Indirect Commands, Questions, Criticism, and Only Talk</td>
</tr>
<tr>
<td><strong>Behaviors observed – Child</strong></td>
<td>Inappropriate Behavior or Appropriate Behavior</td>
<td>Compliance to Commands, Appropriate Behavior, Inappropriate Behavior, Off-task, On-task, Aggressive, and Disruptive Behaviors</td>
<td>35 prosocial and disruptive behaviors grouped into five categories: Cooperation with Adults, Peer Interactions, Independent and Self-Regulating Behaviors, Challenging Behaviors, and Atypical Behaviors</td>
<td>None</td>
</tr>
<tr>
<td>Affiliation</td>
<td>West Virginia University</td>
<td>Child Mind Institute</td>
<td>University of Nebraska-Lincoln</td>
<td>DePaul University</td>
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</tr>
<tr>
<td>Observations (how long, how many?)</td>
<td>2 40-minute observations pre- and post-treatment for each teacher and child.</td>
<td>3 5-minute baseline tasks; 5 2-minute classroom observations; and 5-minute coding at the onset of each treatment session for each teacher.</td>
<td>10 minute observations twice a week for each teacher in 5-minute segments, 15 minute observations twice a week, in which each child was observed for 25 second intervals with 5 seconds for recording</td>
<td>8-10 minute observations of each teacher performed once or twice a week in 2-minute segments</td>
</tr>
<tr>
<td>Note: All observations coded in 10-second intervals unless otherwise specified.</td>
<td>1-minute observations for 5-6 randomly selected children, conducted weekly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of Training</td>
<td>2 hour CDI workshop, 2 hour TDI workshop, 4 hours total</td>
<td>30 minutes per individual at onset of CDI and TDI phases, 1 hour total</td>
<td>per individual CDI: 3 2-hour sessions TDI: 2 2-hour sessions 10 hours total Twice weekly</td>
<td>Group format CDI: 4 90-minute workshops TDI: 4 90-minute workshops 1 graduation session Weekly 13.5 hours total</td>
</tr>
<tr>
<td>Amount of Coaching (per teacher)</td>
<td>7 hours average</td>
<td>CDI: 3-5 30 minute sessions TDI: 3-9 30 minute sessions 4.5 hours average</td>
<td>CDI: 5 1-hour sessions TDI: 4 1-hour sessions 9 hours average</td>
<td>Between 4-9 20 minute sessions 1.37 average CDI hours .80 average TDI hours</td>
</tr>
<tr>
<td>Mastery or Time-dependent</td>
<td>Mastery – “Teacher mastery for CDI included 10 labeled praises, 10 behavioral descriptions, 10 reflective statements and no more than three total questions, commands, or criticisms during a five-minute observation period. Mastery criteria for PDI included giving at least 4 commands, 75% of which must be direct and followed by the correct behavior” (p. 225)</td>
<td>Mastery – “Teachers were required to provide a minimum of 10 of each of the three CDI “Do” skills, and three or fewer CDI “Don’t” behaviors” (p. 28).</td>
<td>Mastery – “CDI mastery criteria in the TCIT-PRE program required teachers to exhibit at least 10 labeled praises, 10 behavioral descriptions, 10 reflective statements (and no more than a total of 3 questions, commands, or criticisms) with an individual or small group of children during a five-minute observation period” (p. 33).</td>
<td>Time-limited – Mastery criteria deemed “unclear” and “impractical” (Gershenson, p.273-4); therefore skill level assessed through coding in first 5 minutes of coaching</td>
</tr>
<tr>
<td>Coaching elements</td>
<td>Group behavior modification, in-vivo, in classroom feedback progressive stages of increasing numbers of children until mastery criteria achieved</td>
<td>Pull-out sessions with trainer, teacher, and an individual student in training room, in-vivo feedback</td>
<td>Group behavior modification, Progressive stages of 1 to 3 children in training room with in-vivo feedback. Teachers had to reach mastery criteria to advance to TDI and graduate.</td>
<td>Group behavior modification, in-vivo, bug-in-the-ear</td>
</tr>
<tr>
<td>Affiliation</td>
<td>West Virginia University</td>
<td>Child Mind Institute</td>
<td>University of Nebraska-Lincoln</td>
<td>DePaul University</td>
</tr>
<tr>
<td>--------------------------</td>
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<td>-------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Time-out procedure</td>
<td>“Thinking Chair”</td>
<td>“Contextually relevant consequences” (e.g. “If you don’t color on the paper, coloring is finished”)</td>
<td>“Pause and Replay”</td>
<td>“Sit and Watch”</td>
</tr>
<tr>
<td>Total Length of Intervention</td>
<td>One school year</td>
<td>Unreported</td>
<td>7-8 weeks (2 sessions/week)</td>
<td>Between 11 and 13 weeks</td>
</tr>
<tr>
<td>Results</td>
<td>Treatment teachers utilized more praise than control; Treatment classrooms reported less time-outs than control; No group differences in teacher-reported classroom manageability; No group differences in observed teacher criticisms; No group differences in observed child behavior</td>
<td>“Do” Skills increased; “Don’t” Skills decreased during CDI; Effective Command Sequences increased during TDI; Skills inconsistently generalized to classroom; Child in-classroom behaviors were inconclusive</td>
<td>Teachers mastered TCIT skills with individual and small groups, with skills generalizing to the classroom; Children’s social and behavioral competence improved in classroom and at home; Many of the teachers reported increased efficacy and satisfaction after program’s completion</td>
<td>Moderate increases in PRIDE Skills; High teacher satisfaction ratings</td>
</tr>
<tr>
<td>Limitations</td>
<td>Small sample size; Possibility of cross contamination between treatment &amp; control classrooms; Rural, Caucasian sample limits generalizability; No demographic information; Limited behavioral data; Floor effects of child maladaptive behaviors.</td>
<td>Group format possibly insensitive to change; Urban, ethnically-diverse, and clinically-referred sample limits generalizability; Extensive resources required for program implementation; Use of training room may have limited skill generalization to classroom.</td>
<td>Resource demands; Ratings collected from primary teacher only; Limited pre- and post-caregiver ratings.</td>
<td>Lack of demographic information about students; Ranges of coaching times; Time intensive; Staffing and attendance difficulties. No child observations.</td>
</tr>
</tbody>
</table>

behavior of a group of students through training in behavior modification skills. In contrast, these classroom-based adaptations of PCIT differ considerably in regard to “number of children and teachers targeted, structure and extent of teacher training, [and] skills measured” (Lyon, et al., 2009, p. 27). The amount of training ranged considerably, with teachers receiving anywhere from 1 to 13.5 total hours of didactics. Coaching times also varied between programs and, in some cases, between teachers. Teachers in Madigan’s program were coached with one child, while other programs had teachers first
master positive behavior skills with one child and then with successively larger groups of children (Madigan, 2011; Campbell, 2011; Tiano & McNeil, 2006). Most of the programs used mastery criteria, which then guaranteed positive results in skill sets achieved. However, results from Madigan’s program indicated that when coaching was performed in a training room only, skills did not generalize to the classroom (2011). Conversely, coaching in the classroom environment appeared to allow application of new skills in the natural setting. Results from Campbell’s program showed the strongest effects, but also demanded the most time and human resources. DePaul’s program differed from the other TCIT programs in several ways, the first being that the DePaul model alone was designed as a universal prevention program, with the others used more targeted interventions with problem children. Moreover, DePaul’s program did not have a training room for coaching due to the limitations of the natural setting; as such, teachers practiced their new skills with the entire class. More aligned with the PCIT protocol, coaches provided feedback in-vivo via a bug-in-the-ear communication system. Adapting mastery criteria that were realistic for the teacher to achieve with an entire classroom proved difficult; therefore it was not used. Instead, the coach coded a teacher’s behavior for the first five minutes of coaching in order to identify areas to highlight in the session. Lastly, DePaul did not collect observational data on children in order to associate the changes in teacher behavior with improvements in child behavior.

**Purpose of the Present Study**

The primary objective of this study was to assess the effectiveness of Teacher-Child Interaction Training (TCIT) in a public preschool setting in a rural area. TCIT is designed to increase teacher behavior management skills in an effort to improve
children’s social and behavioral competence. The current study employed the DePaul model of TCIT to replicate and expand on the procedures outlined in Gershenson, et al. (2010) and Lyon, et al. (2009). Previous implementations of the DePaul program utilized teacher’s ratings of child behavior on clinical scales in order to document child behavior change (e.g. Budd, Legato, & Watkin, 2012). In the present study teacher ratings as well as direct observation of child behavior were employed to examine if children reduced behavior problems and increased classroom engagement as a result of teachers’ increased use of behavior management skills. A randomized schedule of observations was implemented to capture a representative sample of both teacher and child behaviors.

By demonstrating TCIT’s effectiveness for increasing social and behavioral competence in preschool children, the current study builds on previous empirical support for the DePaul model of TCIT. It also offers support for a school-based model of PCIT that can be used in conjunction with traditional PCIT in order to provide a multi-systemic approach to increase effectiveness with children.

**Hypotheses.** This study examined data collected from the Spring semester, 2011, in order to evaluate the effects of a TCIT program in two preschool classrooms. Upon implementation of the DePaul model of TCIT, the following outcomes are expected:

1. *Teacher behavior will change as a result of the intervention.* We expected that teachers would increase PRIDE skills, including Labeled Praise, Unlabeled Praise, Reflections and Behavior Descriptions, during the CDI phase and remain above baseline levels during TDI. We also expected that teachers would reduce “Avoid” behaviors, including criticisms (Negative Talk), commands, and questions. We expected all “Avoid” behaviors to decrease during CDI, that
criticisms and questions would remain low during TDI, and that commands would increase slightly during TDI, as a result of the focus on effective command sequences during that phase.

2. *Child behavior would change as a result of the intervention.* Children would decrease Disruptive Behavior during both CDI and TDI, including destructive, aggressive, and yelling behaviors. We expected that children would increase classroom engagement, defined as Answers to Questions and Compliance to Commands. We anticipated that children’s rate of answering questions would increase during both CDI and TDI, and that children’s observed compliance would increase during TDI, as a result of focus on effective command sequences.

3. *Teachers will report child behavior change on a clinical rating measure.* Using the Devereux Early Childhood Assessment (DECA), we expected teachers’ ratings of child behavior would change over the course of the intervention in two ways. Teachers’ ratings on Initiative, Self-Control and Attachment subscales would reflect an increase in children’s initiative, self-control, and attachment over the three phases of the intervention. Teachers’ ratings of Total Protective Factors, essentially a sum of these subscales, would also increase significantly. Teachers’ ratings on the Behavioral Concerns scale would decrease significantly from baseline to post-intervention.

4. *Teachers’ ratings of child behavior will correlate with observational data.* We expected teachers’ ratings of Behavioral Concerns on the DECA would positively correlate with combined behavioral observations of child disruptive behavior (i.e. destructive, aggressive, and yelling behaviors). Conversely, we expected
teachers’ ratings of Total Protective Factors on the DECA would positively correlate with measures of engagement (compliance to commands and answers to questions).
Section 2: Method

Participants

This research was conducted in a public elementary school in rural Virginia from January to May of 2011. Seventy-seven percent of children enrolled in the elementary school qualified for free or reduced-cost lunch. Two preschool classrooms were selected by the school principal to participate in the intervention. “Class A” was a general education preschool classroom, and “Class B” was a HeadStart classroom. Five teachers and instructional assistants (three in Class A, two in Class B) participated in the intervention. All five teachers and assistants were Caucasian females. Each class had 18-20 students, ranging in age from three to five years old. In Class A there were 10 males and 9 females, with a mean age of 4.9. Class B consisted of 12 males and 8 females, with a mean age of 5.0.

A unique aspect of the study was the composition of ethnic backgrounds in the classroom. English was the second language for over 75% of the students, with Spanish being the primary language spoken. Fifteen of nineteen children in Class A and fifteen of twenty children in class B were raised with English as their second language. Class B had five different primary languages spoken by the children, including Spanish, English, Arabic, Eritrean, and a Kurdish dialect.

Consistent with the approved JMU IRB protocol for consent procedures, 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. The letter was also translated into Spanish. IRB submission materials as well as consents are included in Appendix A. In addition, the classroom teacher was required to make a
follow-up personal contact to confirm that the parent had reviewed the letter and agreed to the participation of the child. As appropriate, an interpreter assisted the teacher in this personal communication. In order to protect their confidentiality, both teachers and students were assigned random numbers for identification and data sheets noted only the randomized descriptor.

**Nominated children.** At the onset of the study, teachers in each classroom identified five children who presented particular challenge within the classroom. Since the problem behaviors selected for observation tend to occur at a low frequency in the general classroom population (e.g. Tiano & McNeil, 2006), these children were targeted in particular to offer more clarity on the effectiveness of the intervention. That is, observers collected more frequent observations on nominated children.

The children’s scores on teacher-rated clinical scales (DECA) corroborated the identified children’s demonstration of more problem behaviors than other students in the class. In both classes, the five children who were nominated had the five highest scores on the Behavioral Concerns subscale of the DECA, based on averaged teachers’ ratings. However, one of the children in Class A moved away a week into the study and another child was nominated who was among the next highest by the teachers’ ratings. Generally speaking, averaged teacher ratings were utilized to take into account the opinions of all of the teachers in the classroom for identifying challenging children.

**Setting**

Each classroom was approximately 50 square meters in size, with six or seven “centers” sectioned off by small bookshelves housing 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 class schedule began with “Circle Group,” in which
the class settled, sang a song in greeting and the teacher read a book which corresponded
to the lesson of the day. Next was “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, or dress-up clothes. During this time it was also common for
teachers to offer a specific activity, such as an art project, or perform assessments with
individual children. Last was “Clean Up,” in which the children bustled around and
teachers gave commands to put everything back in order.

Dependent Variables

Behavioral Observations. Nine teacher behaviors and nine child behaviors were
selected from those listed in the Dyadic Parent-Child Interaction Coding System - Third
Observation Coding System (REDSOCS, Ginn, et al., 2009), based on their relevance to

<table>
<thead>
<tr>
<th>TEACHER BEHAVIORS</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Talk (NTA)</td>
<td>A verbal expression of disapproval of the child or the child's attributes,</td>
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<tr>
<td></td>
<td>activities, products, or choices. Negative talk also includes sassy,</td>
</tr>
<tr>
<td></td>
<td>sarcastic, rude, or impudent speech.</td>
</tr>
<tr>
<td>Direct Command (DC)</td>
<td>A declarative statement that contains an order or direction for a vocal or</td>
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<tr>
<td></td>
<td>motor behavior to be performed and indicates that the child is to perform</td>
</tr>
<tr>
<td></td>
<td>this behavior.</td>
</tr>
<tr>
<td>Indirect Command (IC)</td>
<td>A suggestion for a vocal or motor behavior to be performed that is implied</td>
</tr>
<tr>
<td></td>
<td>or stated in question form.</td>
</tr>
<tr>
<td>Labeled Praise (LP)</td>
<td>A positive evaluation of a specific behavior, activity, or product of the</td>
</tr>
<tr>
<td></td>
<td>child.</td>
</tr>
<tr>
<td>Unlabeled Praise (UP)</td>
<td>A positive evaluation of the child, an attribute of the child, or a</td>
</tr>
<tr>
<td></td>
<td>nonspecific activity, behavior, or product of the child.</td>
</tr>
<tr>
<td>Question (QU)</td>
<td>A verbal inquiry that is distinguishable from a declarative statement by</td>
</tr>
<tr>
<td></td>
<td>having a rising inflection at the end and/or by having the sentence</td>
</tr>
<tr>
<td></td>
<td>structure of a question. Questions request an answer but do not suggest</td>
</tr>
<tr>
<td></td>
<td>that a behavior is to be performed by the child.</td>
</tr>
<tr>
<td>Reflective Statement (RF)</td>
<td>A declarative phrase or statement that has the same meaning as a preceding</td>
</tr>
<tr>
<td></td>
<td>child verbalization. The reflection may paraphrase or elaborate on the</td>
</tr>
<tr>
<td></td>
<td>child’s verbalization but may not change the meaning of the child’s</td>
</tr>
<tr>
<td></td>
<td>statement or interpret unstated ideas.</td>
</tr>
<tr>
<td>Behavioral Description</td>
<td>A non-evaluative, declarative sentence or phrase in which the subject is</td>
</tr>
<tr>
<td>(BD)</td>
<td>the other person and the verb describes that person's ongoing or</td>
</tr>
<tr>
<td></td>
<td>immediately completed (&lt; 5 sec.) observable verbal or nonverbal behavior.</td>
</tr>
<tr>
<td>Positive Touch (PTO)</td>
<td>Any intentional positive physical contact between teacher and child.</td>
</tr>
</tbody>
</table>
the intervention and intended outcomes (i.e. behaviors intended to increase or decrease).

These behaviors are defined in Tables 3 and 4.

Table 4.
Child behaviors recorded

<table>
<thead>
<tr>
<th>CHILD BEHAVIORS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yelling (Y)</td>
<td>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.</td>
</tr>
<tr>
<td>Destructive Behavior (D)</td>
<td>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).</td>
</tr>
<tr>
<td>Aggressive Behavior (A)</td>
<td>Includes fighting, kicking, slapping, hitting, pushing, shoving, grabbing an object roughly from another person, or threatening (verbally) to do any of the preceding.</td>
</tr>
<tr>
<td>Compliance (CO)</td>
<td>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.</td>
</tr>
<tr>
<td>Noncompliance (NC)</td>
<td>Coded following a Direct or Indirect Command given by 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.</td>
</tr>
<tr>
<td>No Opportunity for Compliance (NOC)</td>
<td>Coded when the child is not given an adequate chance to comply with a command.</td>
</tr>
<tr>
<td>Answer to Questions (AN)</td>
<td>A verbal or nonverbal response to a question that provides or attempts to provide the information requested in the question.</td>
</tr>
<tr>
<td>No Answer to Questions (NA)</td>
<td>Occurs when the child does not attempt to provide the information requested in the question.</td>
</tr>
<tr>
<td>No Opportunity to Answer (NOA)</td>
<td>Coded when the child does not have an adequate chance to provide the information requested by a teacher in a question.</td>
</tr>
</tbody>
</table>

Teacher and child behaviors were observed and recorded by a team of eight undergraduate and graduate psychology students. The observers were trained in the DPICS (3rd Edition) and REDSOCS coding systems. Over the course of a semester, observers participated in weekly didactic meetings that consisted of reviewing the DPICS-III manual in detail, practicing coding from role-plays and videos, and completing weekly homework assignments and quizzes from the DPICS-III workbook.

Additionally, the observers visited the classroom several times prior to the onset of the study so that the children habituated to their presence. Once in the classroom, the observers did not interact with teachers or students, but rather recorded their observations while interfering as little as possible in classroom activities.
Observational data were collected on four mornings of the week from 9:50am to 11:10 am (Monday, Tuesday, Wednesday and Friday). Two observers in each classroom recorded two-minute samples of teacher and child behaviors in 10-second intervals. The intervals were signaled by a voice recording which played on observers’ iPods through ear buds. Teachers and challenged children were observed four times during the observation period each day. Observations of the remaining children were split over the course of two days and observed twice on the given day.

The schedule of observations was randomized and reconfigured into four schedules, which rotated daily. A sample of one of the four daily schedules is provided in Figure 1. One quarter of the observations collected were coordinated to provide inter-observer reliability. These observations are shaded in Figure 1. During observations collected for reliability purposes the observers utilized a splitter to plug their headsets into the same iPod, ensuring observations were recorded during the same interval. The length of the headsets cords allowed observers to stand at least one meter apart, unable to

<table>
<thead>
<tr>
<th>Observation #</th>
<th>Observer A Class A</th>
<th>Observer B Class A</th>
<th>Observer C Class B</th>
<th>Observer D Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>011 529*</td>
<td>031 981*</td>
<td>102 743*</td>
<td>141 681*</td>
</tr>
<tr>
<td>2</td>
<td>103 579*</td>
<td>011 529*</td>
<td>202 754*</td>
<td>102 743*</td>
</tr>
<tr>
<td>3</td>
<td>013 628</td>
<td>053 989*</td>
<td>031 248</td>
<td>182 653*</td>
</tr>
<tr>
<td>4</td>
<td>031 023</td>
<td>161 220*</td>
<td>013 294*</td>
<td>013 294*</td>
</tr>
<tr>
<td>5</td>
<td>052 782</td>
<td>052 782</td>
<td>081 764</td>
<td>081 764</td>
</tr>
<tr>
<td>6</td>
<td>031 981*</td>
<td>031 981*</td>
<td>141 681*</td>
<td>141 681*</td>
</tr>
<tr>
<td>7</td>
<td>102 525</td>
<td>102 525</td>
<td>270 177</td>
<td>270 177</td>
</tr>
<tr>
<td>8</td>
<td>031 023</td>
<td>031 023</td>
<td>013 294*</td>
<td>013 294*</td>
</tr>
<tr>
<td>9</td>
<td>101 181</td>
<td>031 023</td>
<td>181 141</td>
<td>202 754*</td>
</tr>
<tr>
<td>10</td>
<td>181 675</td>
<td>103 579*</td>
<td>201 948</td>
<td>201 948</td>
</tr>
<tr>
<td>11</td>
<td>053 989*</td>
<td>181 675</td>
<td>182 653*</td>
<td>270 177</td>
</tr>
<tr>
<td>12</td>
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<td>161 220*</td>
<td>013 628</td>
<td>051 856</td>
<td>202 754*</td>
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<td>051 095</td>
<td>103 579*</td>
<td>012 925</td>
<td>012 925</td>
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<tr>
<td>15</td>
<td>161 220*</td>
<td>161 220*</td>
<td>270 177</td>
<td>191 639</td>
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<tr>
<td>16</td>
<td>102 525</td>
<td>106 038</td>
<td>141 681*</td>
<td>181 141</td>
</tr>
<tr>
<td>17</td>
<td>031 981*</td>
<td>101 181</td>
<td>182 653*</td>
<td>182 653*</td>
</tr>
<tr>
<td>18</td>
<td>053 989*</td>
<td>053 989*</td>
<td>191 639</td>
<td>051 856</td>
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<tr>
<td>19</td>
<td>261 575</td>
<td>261 575</td>
<td>261 807</td>
<td>261 807</td>
</tr>
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<td>21</td>
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<td>181 141</td>
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<tr>
<td>22</td>
<td>106 038</td>
<td>051 095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.** Sample Randomized Observation Schedule. Notes: Shaded = reliability observations; * = nominated children.
view each other’s records. Observers collected data on specific days based on course schedule and rotated classrooms weekly, with each observer rotating from Observer A to B, then B to C, etc. A two-week schedule sample is provided in Figure 2. Observers arrived in the classroom 15 minutes early to prepare the coding sheets and put them in the order of the randomized schedule.

<table>
<thead>
<tr>
<th>March 14</th>
<th>Schedule 1</th>
<th>March 15</th>
<th>Schedule 2</th>
<th>March 16</th>
<th>Schedule 3</th>
<th>March 18</th>
<th>Schedule 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 081</td>
<td>A 031</td>
<td>A 112</td>
<td>A 112</td>
<td>A Field trip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B 031</td>
<td>B 131</td>
<td>B 081</td>
<td>B 081</td>
<td>B Field trip</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>C 112</td>
<td>C 113</td>
<td>C 191</td>
<td>C 112</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 131</td>
<td>D 112</td>
<td>D 111</td>
<td>D 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 21</td>
<td>Schedule 1</td>
<td>March 22</td>
<td>Schedule 2</td>
<td>March 23</td>
<td>Schedule 2</td>
<td>March 25</td>
<td>Schedule 3</td>
</tr>
<tr>
<td>A 131</td>
<td>OFF</td>
<td>A 191</td>
<td>A 081</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B 081</td>
<td></td>
<td>B 112</td>
<td>B 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C 031</td>
<td></td>
<td>C 081</td>
<td>C 113</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 112</td>
<td></td>
<td>D 191</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Figure 2.* Sample schedule with rotating observers. Three digit codes correspond to the observers’ names, with A-D referring to a set of observations taken in each classroom.

**Creating a randomized schedule.** Developing a system of observation for obtaining a random sample of teacher and child behaviors was a challenge of the current study. Randomized observational data schedules needed to account for more frequent observations of teachers and nominated children while adequately sampling all of the other children in the class. The following describes a method of collecting behavioral data in a way that is both randomized and systematic, providing for multiple observations of selected persons as well as the calculation of inter-observer reliability.

First, the number of possible observations accommodated in time provided was calculated depending on the length of the desired observation interval (in our case, two minutes) and the length of the observation period (80 minutes). Our schedule also included a 30-second buffer period between intervals to allow observers to locate the next participant and re-position themselves in closer proximity. Although our observers
needed the full 30 seconds at the outset of the study, by the end they only needed 10 seconds to reorient themselves. Once the total number of possible observations is calculated, determine if all participants will be observed the same number of times or if some will be observed more frequently.

Next, a key (Figure 3) linked each participant with $x$ number of sequential numbers, with $x$ being half the number of desired observations (since participants were observed by two observers). A Random Number Generator (such as that found on Randomizer.org; Urbaniak & Plous, 2014) developed a sequence of observations for Observer A. Using the key, the participants were listed on a blank schedule as they correspond to the RNG’s sequence (Figure 4).

<table>
<thead>
<tr>
<th># Obs needed</th>
<th>Random #</th>
<th>Class A Codes</th>
<th>Random #</th>
<th>Class B Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1-2</td>
<td>101 181</td>
<td>1-2</td>
<td>181 141</td>
</tr>
<tr>
<td>4</td>
<td>3-4</td>
<td>102 525</td>
<td>3-4</td>
<td>270 177</td>
</tr>
<tr>
<td>4</td>
<td>5-6</td>
<td>031 023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>7-8</td>
<td>011 529*</td>
<td>5-6</td>
<td>013 294*</td>
</tr>
<tr>
<td>4</td>
<td>9-10</td>
<td>031 981*</td>
<td>7-8</td>
<td>102 743*</td>
</tr>
<tr>
<td>4</td>
<td>11-12</td>
<td>053 989*</td>
<td>9-10</td>
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<td>29</td>
<td>261 807</td>
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Figure 3. Key for creating a randomized schedule. Bolded numbers indicate teachers, * indicate nominated children.

Depending on the portion of observations that were inter-rater to test reliability, the RNG was used to choose numbers from the total number of observations to be the beginning of reliability segments. We found that clustering the reliability observations
was more efficient and that dividing them into two separate clusters allowed us to calculate reliability at different points of the observation period. In our example, the RNG provided the numbers 5 and 19; therefore observations 5-7 and 19-21 were indicated as reliability sections on the schedule (Figure 4). The reliability codes were copied to Observer B and the RNG was again used to create another order of observations for Observer B’s schedule, removing the codes that were used for inter-observer reliability assessments. For the second class, the class’ codes were organized in the same sequence developed by the RNG for the first class. For this study, we also developed four three-person schedules to accommodate an observer’s absence. With three observers, the third “swing” observer was scheduled half-time in each class.

**Interobserver Reliability.** To assess interobserver reliability (IOR), Cohen’s Kappa (Cohen, 1988) was calculated for teacher and child behaviors. Kappa is computed by calculating the percentage of agreement between two raters and then subtracting the total probability that each rater would make a certain rating (thus correcting for chance). The difference is then divided by one minus the chance probability. Kappa is a measure of inter-rater agreement for categorical items (i.e. whether or not a behavior occurred in an interval). Kappa was chosen as opposed to percent agreement because Kappa corrects for chance agreement among two observers and allows for use with several categories (Bryington, Palmer, & Watkins, 2004; as cited in Lyon, et al., 2009). Kappa is

<table>
<thead>
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<th>Obs #</th>
<th>Observer A Class A</th>
<th>Observer B Class A</th>
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<tbody>
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<tr>
<td>22</td>
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</table>

Figure 4. Filling in a schedule/developing reliability observations.
considered more stringent than other measures of reliability, such as percent agreement (Kazdin, 2011), therefore value categories describing other forms of reliability may not be appropriate. According to standards set forth by Landis and Koch, kappa values between .41 and .60 are considered moderate, between .61 and .80 are substantial, and above .81 are almost perfect (Lyon, et al., 2009).

Kappa was calculated for each of the teacher and child behaviors described above (i.e. Tables 5 and 6). Unlike other studies, in which Kappa might be calculated throughout the course of the intervention in order to monitor levels and provide additional training if necessary, we were unable to calculate Kappa during the course of

<table>
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<th>Teacher Behaviors</th>
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<th>Child Behaviors</th>
<th>Kappa</th>
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<tr>
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<td>Unlabeled Praise (UP)</td>
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<td>Reflection (RF)</td>
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<tr>
<td>Mean</td>
<td>.373</td>
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the study. Due to the low reliability acquired for some behaviors, several behaviors were collapsed to increase confidence in behaviors observed. These behaviors are listed in Table 6. For teacher behaviors, Direct Commands and Indirect Commands were collapsed into “Commands.” Questions, regardless of child response, were collapsed into “Questions.” The four behaviors that were taught to teachers in order to increase positive attention (Labeled Praise, Unlabeled Praise, Behavior Description, and Reflection) were collapsed into “PRIDE Skills.” For child behaviors, compliance to either Direct or Indirect Commands was collapsed into “Compliance,” and noncompliance to either type of command as “Noncompliance.” The three problem behaviors, Aggression, Destruction, and Yelling, were collapsed into “Disruptive Behaviors.” In general, interobserver agreement for the study can be considered moderate.

**Data Analysis.** Parsonson (2003) outlined several criteria for visual analysis of graphical data, based on his collaborative work with Donald Baer (e.g. Parsonson & Baer, 1978, Parsonson, 2003). These include (1) changes in *trend* within and between conditions, (2) changes in *level* within and between conditions, (3) changes in *variability* or stability of the data path within and between conditions, (4) *patterns*, cycles, or sequences in the data within and between conditions, (5) range and *overlap* of data points between conditions, and (6) sufficient *number* of data points per condition to demonstrate trend, stability, etc. Behavioral data were examined graphically using these criteria for visual inspection.

<table>
<thead>
<tr>
<th>Table 6. Collapsed Behaviors</th>
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<tr>
<td><strong>Teacher</strong></td>
</tr>
<tr>
<td>Commands</td>
</tr>
<tr>
<td>Questions</td>
</tr>
<tr>
<td>PRIDE Skills (LP, UP, RF, BD)</td>
</tr>
<tr>
<td><strong>Child</strong></td>
</tr>
<tr>
<td>Compliance to Commands</td>
</tr>
<tr>
<td>Noncompliance to Commands</td>
</tr>
<tr>
<td>Disruptive Behaviors</td>
</tr>
</tbody>
</table>
Each day, each rater entered their observational data (3-4 raters, 22-26 observations per day). Using separate databases for child and teacher data, each database was designed with the names of each behavior atop each column, with each row holding a separate observation. The total percentage of intervals in which a behavior was observed was calculated for each behavior each day, and displayed graphically with percentages on the y-axis, and day on the x-axis.

**Teacher Ratings of Child Behavior.** To assess children’s social and behavioral competence, teachers and assistants completed the Devereux Early Childhood Assessment (DECA) for each child in their respective classrooms at four time points during the study, each one month apart. Grounded in resilience theory, the DECA is a standardized, norm-referenced behavior rating scale designed to evaluate protective factors within the child, which are thought to contribute to child resiliency, as well as problem behaviors sometimes seen in preschool children, ranging from ages two to five (LeBuffe & Naglieri, 1999c). LeBuffe and Naglieri conceptualized protective factors as descriptions provided by a focus group of teachers and parents about the qualities of children “who were likely to do well,” or “who were doing well” (1999b). Through factor analysis, these qualities were eventually defined as Initiative, Self-Control, and Attachment.

Some of the DECA’s primary objectives are to assist in identifying strengths and comparative weaknesses in a child, and to develop programs that support socio-emotional development and growth (LeBuffe & Naglieri, 1999b). It has also been supported for use as an outcome measure. The DECA is used in many early childhood development
programs, including Head Start, in order to evaluate and enhance programming (Chain, Dopp, Smith, Woodland & LeBuffe, 2010).

The DECA consists of 37 items in total; 27 of these items are designed to assess within-child protective factors, and the remaining ten items evaluate challenging or problem behaviors that are sometimes observed in preschool children (LeBuffe & Naglieri, 1999c). Within-child protective factors are measured on three scales capturing the factors previously described (Initiative, Self-Control, and Attachment) and a total scale that indicates the overall degree of the child’s protective factors (Total Protective Factors). Problem or challenging behaviors are measured on the Behavioral Concerns Scale. Sample items from the DECA include “During the past four weeks, how often did the child… control his/her anger? … show patience? … get easily distracted?”

Standardized T-scores gauge a child’s level of risk or resilience, as compared to a standardization sample of 3,061 children, which was representative of the United States population in terms of demographic characteristics at the time of standardization.

The DECA can be completed by a child’s caregiver and/or a teacher, with the qualification that they have sufficient exposure to the child over the preceding four weeks, operationalized as two or more hours a day at least two days per week (LeBuffe & Naglieri, 1999b). Parent and teacher internal reliabilities have been calculated separately and, in general, coefficients for teachers’ ratings tended to be higher than parents’, suggesting higher consistency of ratings. Only teacher’s reliability coefficients will be reported here.

Internal consistency of the subscales, as demonstrated by Cronbach’s alphas, ranged from .80 (for Behavior Concerns), to a high and appropriate .90 (for Self-Control
and Initiative). The teachers’ internal consistency for Total Protective Factors subscale was also high ($\alpha=.94$). Test-retest reliability of subscales (with a 24-72 hour interval between tests) ranged from .60 (for Behavior Concerns) to .91 (for Self-Control and Initiative). Total Protective Factors was again .94. Inter-rater reliabilities were significant for each of the subscales and ranged from .57-.77. Total Protective Factors was calculated at .69.

The DECA’s validity has been investigated through a series of studies. First, DECA’s criterion-related validity was established through the DECA’s ability to discriminate between groups of children with or without behavioral or emotional problems, as well as predict group membership for individuals (LeBuffe & Naglieri, 1999b). In another study, the DECA demonstrated its validity for use with minority populations, as scores did not differ based on minority status (LeBuffe & Naglieri, 1999b). Construct validity was established by comparing the DECA with other measures of risk and resilience. Overall, strong evidence of validity and reliability support the DECA’s use for measuring protective and risk factors in preschool children ((LeBuffe & Naglieri, 1999b)).

**Research Design**

The present study employed a concurrent multiple baseline design across classrooms to evaluate teachers’ acquisition of TCIT skills and children’s changes in social and behavioral competence. This design illustrates the effects of an intervention by demonstrating that behavior changes are concurrent with the introduction of the intervention (Kazdin, 2011). In this way, by collecting baseline data before the intervention is introduced, and comparing it with data from the experimental phase, the
participant can act as its own control (Barlow, Nock, & Hersen, 2009). A multiple-baseline design has the added advantage of accounting for history effects, which are difficult to rule out in other designs such as randomized control trials (Barlow, et al., 2009). By staggering the introduction of the intervention sequentially across participants, the extended baseline phase of one participant group can be compared with the intervention phase of another participant group at the same point in time. In the current study, the multiple baseline design was implemented with four weeks of baseline data collected before Class A received the intervention. Class B received the intervention the following month, for a total baseline of eight weeks. The second phase of the intervention was introduced four weeks later, and extended for four weeks.

**Training.** The primary teacher and assistant(s) attended two three-hour workshops: the first about Child-directed Interaction (CDI) and the second about Teacher-directed Interaction (TDI). These workshops were conducted by two licensed psychologists, one of whom is the developer of the current TCIT model. In Lyon, et al.’s (2009) study, teachers participated in nine workshops total, with each 90 minute workshop offered weekly. In the current study, teachers’ schedules were open for training just one day a month. As such, we adapted the TCIT protocol so that it was delivered in two 3-hour sessions, offered one month apart, and combined with 30-minute weekly consultations with the teachers to highlight target behaviors.

The CDI phase began with a workshop, which included introductions and an overview of TCIT. Each teacher received a binder with training materials, including practice worksheets. Teachers were asked to share their experiences with disruptive classroom behaviors and to reflect on what works to manage difficult behavior and what
does not. Then the rationale and goals of CDI and PRIDE skills were explained and discussed. Teachers watched videos modeling CDI and practiced coding the behaviors. The session concluded with a homework assignment related to new concepts and skills (see Appendix B for complete workshop materials). Finally, coaching was introduced and scheduled for the following weeks. Each week that followed, the teachers attended weekly consultation with the coach, a licensed clinical psychologist, for 30 minutes the morning before coaching sessions to review concepts, give and receive feedback, and select a target behavior for the sessions.

The TDI workshop marked the initiation of the TDI phase. Teachers reviewed and completed evaluations on the CDI phase. Each teaching team reflected on coaching, the development of their PRIDE skills, and perceived changes in the classroom. TDI skills such as giving effective command sequences and the timeout procedure “Sit and Watch” were introduced, with general guidelines for implementation. “Sit and Watch” is a variant of timeout for which the teachers jointly determined the procedures and the behaviors for which it is to be implemented (for history and full description see Gershenson, et al., 2009). Teachers then role-played new concepts and skills. Again, facilitators assigned homework and coaching was scheduled for the following weeks. Weekly consultation continued with more detailed instructions on carrying out TDI procedures.

A graduation session took place the final week of the program, in which the teachers were thanked for their participation and given an evaluation form. This form allowed teachers to provide feedback about their experiences of the program, including
how useful they found the skills to be, and how much the program helped them with classroom management.

Coaching. In-class coaching began the week following the CDI workshop and continued until the termination of the study. Coaching was conducted by a licensed clinical psychologist with over 30 years’ experience in parent and teacher training and consultation. Each coaching session lasted approximately 20 minutes for each teacher, two days a week, for 10-14 weeks (depending on the class). Each teacher received between five and eight total hours of direct coaching. For an overview of total training and coaching characteristics in each classroom, see Table 7.

Coaching occurred during class time using “bug-in-the-ear” technology to provide in vivo feedback to teachers. Depending on the nature of the classroom activities, the coach was sometimes located close to the teacher and other times at the far end of the room, so as to not draw attention to himself. The coaching format included five minutes of observation, 10 minutes of coaching, and 5 minutes of feedback, if the teacher was available. Generally, coaching served to reinforce skills used and provide additional prompts when appropriate. A full description of coaching materials can be found in Appendix C.

Similar to the experiences of other TCIT studies (e.g. Lyon, et al., 2009; Madigan, 2011), verbal feedback often overlapped with teachers’ activities, and teachers took time

<table>
<thead>
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<th>Table 7</th>
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<tr>
<td>Total Training and Coaching Received by Teachers (in Hours)</td>
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<td>Workshop</td>
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<td>Meetings</td>
</tr>
<tr>
<td>Coaching Total</td>
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<td>Per Teacher</td>
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</table>
to adapt to receiving the feedback while also delivering a lesson or interacting with students. If teachers were engaged in activities in which coaching would interfere, the coach relied less on immediate feedback and would provide feedback following the coaching period.

**Social Validity**

In order to assess their satisfaction with the training program, teachers completed evaluation forms at several points throughout the intervention phases. Evaluations were completed anonymously at the end of each phase (CDI, TDI, and coaching). These forms contained seven statements with ratings scales (4=strongly agree; 3=somewhat agree; 2=no opinion; 1=somewhat disagree; 0=strongly disagree) about the intervention’s perceived effects on the teachers’ skills, their ability to provide effective discipline practices, and the overall usefulness of the program. In addition, each evaluation offered areas for open-ended feedback about the best aspects of the sessions, the aspects that need improvement, and any other comments or reactions to the program.
Section 3: Results

Visual Inspection

A graph depicts changes in behavior for each teacher and child behavior, as captured by observational coding. Consistent with the IRB protocol, results are reported in the aggregate, so as to protect the identities of the participants. For most behaviors, data are presented by the percentage of 10-second intervals in which the behavior occurred. For example, all teachers’ Labeled Praise from a classroom was summed and averaged across the number of intervals in which they were observed. Other behaviors were calculated according to the percentage of opportunities to which participants had an opportunity to respond. For example, Answers to Questions was calculated as the percentage of questions to which a child provided an answer, within the intervals observed on a given day.

Teacher Behavior. This section includes a number of figures that focus on the teachers’ acquisition and avoidance of certain behaviors and skills. As described above, teachers were observed performing nine behaviors at the onset of the study. Following reliability analyses, seven behaviors had adequate kappas for moderately reliable visual analysis: PRIDE skills, Labeled Praise, Unlabeled Praise, Reflections, Commands, Questions, and Negative Talk. The kappa value for Behavior Descriptions was below the moderate range, but graphical data are displayed with the caveat that the data may not be highly reliable.

Teachers’ PRIDE skills acquisition. Since both classrooms were already positive learning environments, there was already a degree of positive attention skills demonstrated by teachers during the baseline phases of the study (Figure 5). In the
baseline condition, use of PRIDE Skills occurred in an average of 11% of intervals in both classrooms. Teachers demonstrated increased rates of positive attention skills in each classroom. During CDI, teachers in Class A used PRIDE Skills an average of 20% of intervals, with Class B averaging 24% of intervals. These levels were maintained in TDI, with Class A performing PRIDE Skills in slightly less than 20% on average, and Class B performing PRIDE Skills in an average of 25% of the intervals.

Figure 5. Daily rates of PRIDE skills.
In addition, data collected at 8-month follow-up suggest that teachers maintained levels of PRIDE skills comparable to or higher than those at the cessation of this study (Figure 7).
Each individual PRIDE Skill was also evaluated to examine levels of each behavior throughout the intervention. In the baseline condition for both classrooms, teachers provided Labeled Praise in less than 2% of the intervals, on average. In Class A, teachers’ use of Labeled Praise increased dramatically in the beginning of the CDI phase, then decreased moderately, averaging 3% of intervals during the CDI phase. Labeled Praise then leveled off for the remainder of the study at levels above the baseline, occurring in 4% of intervals on average during TDI. Throughout CDI, Class B teachers increased their use of Labeled Praise and kept high levels throughout TDI, although its use increased in variability across the study. Teachers in Class B averaged 9% of intervals with Labeled Praises throughout both CDI and TDI conditions.
Figure 8. Daily rates of Labeled Praise.

Figure 9. Mean rate of Labeled Praise per condition.
Since teachers in both classrooms were generally positive, both classrooms’ use of Unlabeled Praise started higher than other PRIDE behaviors, occurring at an average of 5% of intervals during the baseline phase (Figure 10). In Class A, use of Unlabeled Praise did not vary greatly and the trend was decreasing across baseline. Class A teachers increased their use of Unlabeled Praise during CDI, averaging 7% of intervals, although its use was more variable. Levels again increased further during TDI, with Class A performing Unlabeled Praise in an average of 8% of intervals. With the exception of one outlier, Class B showed a stable, though variable, rate of Unlabeled Praise use throughout baseline, increased its use throughout CDI to an average of 9%, and increased further during TDI with an average of 10% of intervals.
Figure 10. Daily rates of Unlabeled Praise.

Figure 11. Mean rate of Unlabeled Praise per condition.
In Class A’s baseline, teachers’ use of Reflections was variable, with a slight upward trend. On average, Class A teachers gave Reflections 5% of intervals during baseline. In CDI, Reflections sharply spiked, and then appeared to decrease, with an average of 8% of intervals. During TDI, teachers’ use of Reflections varied widely, but generally occurred at a higher level than baseline, maintaining the 8% average rate throughout TDI. In Class B, use of Reflections remained low throughout baseline (4% of intervals on average) and remained at similar levels throughout CDI, but with more variability (5% average). Class B teachers increased their rate of Reflections during TDI, meeting Class A’s rate of 8%, although its use continued to vary.

*Figure 12. Daily rates of Reflections.*
Behavior Descriptions was the one behavior whose kappa did not reach the acceptable range; therefore the following data should be evaluated with caution. With few exceptions, Behavior Descriptions remained consistently low throughout baseline conditions in both classes (around 1% of intervals). Teachers in both classes increased their use of Behavior Descriptions during CDI (4-5%), and then levels appear to taper off in TDI, with levels of Behavior Descriptions ending at a higher level than baseline (3-4%).

Figure 13. Mean rate of Reflections per condition.
**Figure 14.** Daily rates of Behavior Descriptions.

**Figure 15.** Mean rates of Behavior Descriptions per condition.
Overall, teachers increased their use of PRIDE Skills in accordance with the introduction of the intervention and maintained levels above baseline.

“Avoid” Skills. Both classrooms demonstrated decreases in their performance of behaviors that TCIT encourages teachers to avoid: Negative Talk, Commands, and Questions.

Teachers in Class A already demonstrated low levels of Negative Talk during the baseline of the study (Figures 16 & 17), with average of 2% of intervals. During intervention phases the behavior appears to decrease further. With the exception of one day, teachers in Class A reduced their frequency of Negative Talk throughout the intervention phases, averaging 1% of intervals in both CDI and TDI. Class B started with higher levels of Negative Talk than Class A during the baseline phase, with more variability in its use (5% of intervals on average). Over the intervention phases, the use of Negative Talk decreased and became less variable, with teachers using Negative Talk an average of 4% of intervals in CDI, and 3% in TDI.
Figure 16. Daily rates of Negative Talk.

Figure 17. Mean rates of Negative Talk per condition.
Although more variable in Class B than Class A, teachers’ use of Commands (Figures 18 & 19) stayed at a relatively consistent level throughout the baseline phases in both classrooms (25-26% of intervals on average). The level of Commands decreased during CDI phases in each classroom (14% for Class A and 16% for Class B), and increased slightly through TDI but remained lower than baseline (average 15% for Class A and 19% for Class B).

Figure 18. Daily rates of Commands.
Teachers’ use of Questions also decreased over the course of the intervention (Figures 20 & 21). In Class A, the percentage of intervals in which teachers asked Questions has an upward trend during baseline, averaging 20% of intervals. Questions then show a level decrease in CDI (to 15% on average), and further decrease with one exception during TDI (to 14% average). In Class B, there is a relatively stable level of Questions in baseline, averaging 17% of intervals. Questions decreased to 9% of intervals on average during CDI, and continue to decrease in TDI before showing an upward trend near the end of the condition. Questions occurred in an average of 10% of intervals during TDI.

*Figure 19. Mean rate of Commands per condition.*
Figure 20. Daily rates of Questions.

Figure 21. Mean rate of Questions per condition.
**Child Behavior.** This section includes figures that focus on the children’s disruptive behavior or children’s reactions to teacher behavior: reflecting the engagement of the child with the teacher, compliance with teachers’ commands, and answers to teachers’ questions. Since disruptive behaviors tended to be a low-frequency occurrence, data are presented for both the entire classroom and then highlighting both teacher-nominated children and un-nominated children, in order to highlight any changes that may not be otherwise observed given the expected floor effects.

**Children’s disruptive behavior.** When evaluating the entire classroom, disruptive behaviors decreased as a result of the intervention. Figures 22 and 23 demonstrate the behavior changes and means for each condition. In Class A, there was an upward trend during baseline, averaging 4% of intervals observed. Disruptive behavior appears stable during CDI but actually increases in rate to 5% of intervals on average. During TDI, disruptive behavior shows a downward trend, decreasing to an average of 3% of intervals. In Class B, children’s rates of disruptive behavior begin low and consistent, but then increase in frequency and variability. Baseline levels average close to 4% of intervals, then increase to 5% during CDI. In CDI the disruptive behaviors are occurring at their highest level, and then decrease during TDI to an average of 3% of intervals.
Figure 22. Daily rates of Disruptive Behavior.

Figure 23. Mean rates of Disruptive Behavior per condition.
The pattern of disruptive behavior for unnominated children was similar, but at a lower level of occurrence (Figures 23 & 24). In Class A, the level of disruptive behavior started low and then spiked toward the end of the phase, with a mean rate of 2% of intervals observed throughout baseline. During CDI, disruptive behavior occurred at a higher level (3% on average), with a spike toward the end of the phase. During TDI, disruptive behavior starts low, but follows a series of repetitive peaks that generally have a positive trendline, and ends at a high rate of occurrence. The mean rate of disruptive behavior during TDI was 2%. Class B's unnominated children demonstrated an upward trend during baseline, occurring at a mean rate of 2% of intervals observed. Rates of disruptive behavior remain at an average of 2% of intervals through CDI before showing a downward trend, ending at a mean rate of 1% in TDI.
Children who were nominated by teachers as presenting more challenges in the classroom clearly decrease their disruptive behavior as a result of the intervention. Class A’s nominated children show an upward trend during baseline, with a mean occurrence of 5.4% of intervals observed. The behavior remains variable throughout CDI with a mean occurrence of 5.5% of intervals, a level slightly higher than baseline. Then during TDI, there is a clear downward trend, with disruptive behavior occurring in a mean rate of 3.9% of intervals. In Class B, the baseline levels of disruptive behavior varied greatly, with a mean of 4.8% of intervals observed. The behavior then increased sharply at the beginning of CDI, followed by a downward trend throughout CDI and TDI, with mean
occurrences of 6.4% and 3.5%, respectively. Lastly, nominated children in Class B had a slight increase in disruptive behavior on the final day of observations.

Figure 25. Daily rates of Disruptive Behavior, Nominated Children.
**Children’s classroom engagement.** As previously described, engagement was defined as rates of child compliance to commands and answers to questions. These behaviors were analyzed as rates per opportunity, since children had to be prompted by either commands or questions in order to be given the opportunity to respond. Rates of
engagement for all of the children in Class A started high with a downward trend throughout baseline (mean rate = 71%). Rates of engagement remained around the same level throughout CDI and TDI, with means of 67% in each condition. In Class B, rates of engagement stayed level throughout baseline, at a mean of 61%. Engagement rose to a slightly higher level during CDI, at a mean rate of 66%, and remained at that level during TDI with the exception of two low points, bringing the mean percentage of engagement down to 63%. Daily rates of engagement for each classroom are visible in Figure 28, whereas Figure 29 shows condition means.

*Figure 28.* Daily rates of Engagement.
For unnominated children (Figure 30), rates of engagement in Class A start high and showed a downward trend throughout baseline (mean = 78%) and continued downward through CDI (mean = 65%). The trend starts moving upward at the start of TDI, then falls to its lowest point before beginning to trend upward, with the mean rate of engagement landing at 67% of intervals. In Class B, rates of engagement start lower, with a baseline mean of 60%, then gradually trend upward during CDI (mean 65%) and reach its highest level during TDI (mean = 67%).
When nominated children's engagement is evaluated alone, the patterns are somewhat different (Figure 30). Baseline levels of engagement for Class A's nominated children started high with a downward trend, with a mean rate of 67%. The overall level of engagement throughout CDI and TDI stayed consistent, with a mean rate of 68% in each condition. In Class B, the rate of engagement also started high but then dropped in level during baseline, leaving the mean at 63%. During CDI, the level of engagement for nominated children appeared to increase in level, but with a downward trend that picked up again toward the end. The mean rate of engagement during CDI was 67%. The level of engagement dropped during TDI, and then showed an upward trend with high
variability. Class B’s nominated children’s mean rate of engagement during TDI was 57%. Comparisons of mean rates of engagement in each condition for unnominated and nominated children in each classroom can be seen in Figures 32 & 33.

![Graph of daily rates of engagement for nominated children in Class A and Class B.](image)

*Figure 31. Daily rates of Engagement, Nominated Children*
Figures 32-33. Mean rates of engagement per condition, Unnominated and Nominated children in Class A and Class B.

Upon analyzing levels of compliance alone, results for Class A and Class B show very different patterns. During baseline, Class A starts high, drops, then trends upward again, with an average rate of 79% of intervals. Compliance drops at the start of CDI, and gradually increases, but levels are lower than at baseline, averaging 70%. Compliance trends upward through TDI, drops slightly, and increases again, ending at baseline levels (mean = 78%). Although variable, Class B remains at a fairly consistent level throughout baseline (mean = 72%), rises to a higher level in CDI (mean = 81%),
then returns to baseline levels in TDI (mean = 72%). Daily rates of compliance for each classroom are visible in Figure 34, whereas Figure 35 shows condition means.

**Figure 34.** Daily rates of Compliance to Commands.

**Figure 35.** Mean rates of Compliance per condition.
Separating the unnominated children does little to clarify the picture.

Unnominated children in Class A had high levels of compliance to commands during baseline, with a mean rate of compliance to 89% of commands. Rates of compliance gradually decreased during CDI (mean = 74%), and ended at its lowest level during TDI (mean = 73%). Unnominated children in Class B demonstrated a respectable level of compliance during baseline, with a mean rate of 73%. Compliance increased to a higher level during CDI (mean = 91%) and remained high with few exceptions through TDI (mean = 93%).

Figure 36. Daily rates of Compliance, Unnominated children.
In contrast, nominated children in Class A were observed as having high levels of compliance at the start of baseline, show a sharp drop, and then a slight upward trend, with an overall mean of 72%. The level of compliance drops at the start of CDI, then trends upward, with a mean of 70%. Compliance continues to show an upward trend during TDI, with a mean of 81%. In Class B, nominated children show a consistent rate of compliance during baseline, around a mean of 73%. Rates of compliance increase to a slightly higher level, with a mean rate of 77% compliance to commands during CDI. After a decrease at the onset of TDI, rates of compliance then show an upward trend, but end at a low rate toward the end of the study. Rates of compliance during TDI had a mean of 65%. Comparisons of mean rates of compliance in each condition for unnominated and nominated children in each classroom can be seen in Figures 38 & 39.
Figure 37. Daily rates of Compliance, Nominated children.
Figures 38-39. Mean rates of Compliance to Commands per condition in each classroom, and Unnominated and Nominated children in Class A and Class B.

Lastly, graphs displaying children's rates of answers to questions show few consistent patterns. In Class A, the entire class's rate of answering questions stays relatively consistent throughout baseline, with a mean of 62%. This level appears to stay consistent through CDI (mean = 63%), and then shows a downward trend during TDI, ending at a mean rate of 55%. Rates of answering questions stayed level but were highly variable during Class B's baseline, with a mean rate of 52%. A downward trend emerged during CDI, with a mean 48% rate of answering questions. Answers to questions then trend upward again during TDI, with Class B answering 53% of questions on average.
Daily rates of answering questions for each classroom are visible in Figure 40, whereas Figure 41 shows condition means.
Separating unnominated children offered some unusual patterns. In Class A, rates of answering questions start high at the onset of each condition and then trend sharply downward. The level of answering questions is higher during baseline, leading to a higher mean rate (61%), whereas in CDI the rate of answering questions starts at a lower level, contributing to a lower mean (53%). During TDI, the unnominated children's rates of answering questions pass through two cycles of increasing sharply and then trending downward, with an overall mean rate of 58%. In Class B, unnominated children show high variability in their rates of answering questions, with an average of 49% during baseline. Rates of answering questions showed a downward trend during CDI, with an overall mean of 45% during this phase. Then the rates of answering questions increased in level during TDI, with a mean of 56%. 
Nominated children in Class A demonstrated rates of answering questions around a mean of 60% of opportunities during baseline, then an increase in level during CDI to a mean rate of 67%. During TDI children's rates of answering questions start low, sharply increase, and then trend downward. During TDI the children cycle through this pattern twice and end with an upward trend. The mean rate of answering questions for nominated children in Class A was 52% of opportunities. In Class B, nominated children start with 100% of questions answered and then drop to 0% over two days. Rates of answering questions then trend upward, with a mean of 50% for baseline. During CDI, rates of answering questions start high, decrease, and then start trending upward for an
overall mean of 54%. Rates of answering questions continue to trend upward for Class B throughout TDI, ending with a phase mean of 49%. Comparisons of mean rates of answers in each condition for unnominated and nominated children in each classroom can be seen in Figures 44 & 45.

![Graph showing daily rates of answers for nominated children in Class A and Class B.](image)

*Figure 43.* Daily rates of Answers, Nominated children.
Figures 44-45. Mean rates of Answers to Questions per condition in each classroom, and Unominated and Nominated children in each Class A and Class B.

In summary, teachers in both classrooms increased their levels of PRIDE skills over the course of the intervention. Teachers decreased their use of "Avoid" behaviors from baseline to CDI, and then commands and questions increased slightly in TDI, when they were the focus of intervention. Negative talk decreased throughout CDI and TDI. Observations of children showed an increase in disruptive behavior during CDI, but then a downward trend throughout TDI. On the other hand, children's rates of engagement showed little change as a result of the intervention. Separation of compliance to
commands, answers to questions, and unnominated and nominated children showed conflicting patterns and no consistent effects.

**Teacher Ratings of Child Behavior**

As stated previously, all five teachers completed the DECA for each child in their classroom at four time points, during the final week of each phase (Baseline, CDI, TDI, and Post). Raw scores were converted to T-scores for each scale and subscale. With the use of SPSS 19, data were analyzed from the averaged teachers’ ratings. Intraclass reliability coefficients between primary teachers and assistant(s) were calculated to assess consistency of ratings. In general, alpha coefficients ranged from -0.25 to 0.99, with a mean of 0.75, and a standard deviation of 0.23. It is important to recall that the intraclass alphas reflect correlations of three sets of teacher ratings for Class A, and two for Class B.

Ratings for 35 children were included for the final analysis; data from four children were removed due to children not being present for the entire intervention.

As a result of the multiple baseline design, each class was in different intervention phases at each time point, and therefore DECAAs at each time point would not be comparable. Therefore, intervention phases were aligned across classrooms to allow for analysis of change over the course of the intervention, while also controlling for history effects. This resulted in three comparable time points, which corresponded to the end of each phase of the intervention: Baseline (BL), Child-directed Interaction (CDI), and Teacher-directed Interaction (TDI). DECA ratings were analyzed with a repeated-measures ANOVA (Analysis of Variance) on each DECA subscale, in order to evaluate the effects of the TCIT intervention on teacher’s ratings of child behavior over time. ANOVA results are presented in Table 8.
Results of a one-way repeated measures ANOVA indicated a significant effect for the TPF scale over time, $F(2, 33) = 12.58$, $p = .000$, $\eta^2_p = .27$, considered a small effect size (Cohen, 1988). Results of pairwise comparisons for time and TPF scores indicated a significant increase in DECA ratings between the end of CDI and the end of TDI, $p = .007$. There was also a significant effect for the IN scale over time, $F(2, 33) = 15.99$, $p = .000$, $\eta^2_p = .32$, considered a medium effect size. Pairwise comparisons indicated a significant increase in Initiative ratings between the end of CDI and the end of TDI, $p = .000$. Results for the SC scale indicated that the assumption of sphericity had been violated ($\chi^2[2]=17.34$, $p=.000$); therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon=.71$). Ratings on the SC scale increased significantly over time, $F(1.42, 48.27) = 6.29$, $p = .008$, $\eta^2_p = .16$, a small effect size. Pairwise comparisons for the SC scale indicated a significant increase in Self-control between the end of baseline and the end of TDI, $p=.000$. Results for the AT scale likewise indicated a significant effect of time, $F(2, 33) = 11.11$, $p = .000$, $\eta^2_p = .25$, a small effect size. Results of pairwise comparisons for the AT scale indicated that ratings of

<table>
<thead>
<tr>
<th>DECA Scales/Subscales</th>
<th>BL $M$</th>
<th>BL $SD$</th>
<th>CDI $M$</th>
<th>CDI $SD$</th>
<th>TDI $M$</th>
<th>TDI $SD$</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Protective Factors</td>
<td>50.51</td>
<td>6.35</td>
<td>51.83</td>
<td>5.23</td>
<td>54.06</td>
<td>6.81</td>
<td>12.58</td>
<td>.000 BL/TDI, .007 CDI/TDI</td>
</tr>
<tr>
<td>Initiative</td>
<td>51.40</td>
<td>6.60</td>
<td>52.34</td>
<td>6.19</td>
<td>54.91</td>
<td>6.76</td>
<td>23.08</td>
<td>.000 BL/TDI, .000 CDI/TDI</td>
</tr>
<tr>
<td>Self-Control</td>
<td>53.46</td>
<td>9.83</td>
<td>55.23</td>
<td>6.48</td>
<td>57.23</td>
<td>9.39</td>
<td>6.29</td>
<td>.000 BL/TDI</td>
</tr>
<tr>
<td>Attachment</td>
<td>46.46</td>
<td>5.69</td>
<td>48.51</td>
<td>4.18</td>
<td>49.86</td>
<td>5.79</td>
<td>11.11</td>
<td>.028 BL/CDI, .001 BL/TDI</td>
</tr>
<tr>
<td>Behavioral Concerns</td>
<td>55.60</td>
<td>8.46</td>
<td>53.14</td>
<td>8.30</td>
<td>52.69</td>
<td>8.47</td>
<td>13.81</td>
<td>.003 BL/CDI, .000 BL/TDI</td>
</tr>
</tbody>
</table>
Attachment increased significantly between the end of baseline and the end of CDI, \( p = .028 \). Lastly, a significant effect emerged on the BC scale over time, \( F(2, 33) = 13.81, p = .000, \eta^2_p = .29 \), a small effect size. Pairwise comparisons indicated that a significant decrease in ratings of Behavioral Concerns occurred between the end of baseline and the end of CDI, \( p = .003 \).

In sum, results of the ANOVA indicate that teachers perceived positive behavior changes as a result of the intervention. Across all subscales on the DECA, the children showed significant positive changes, as rated by their teachers. For the Initiative, Self-control, and Total Protective Factors scales, according to the teachers’ ratings, a significant change occurred between the ends of CDI and TDI phases. For the Attachment and Behavioral Concerns scales, however, significant changes appear to have occurred by the end of the CDI phase.

**Correlations of Behavioral Observations and Teacher Ratings**

The purpose of correlating the behavioral observations with teacher DECA ratings was to investigate whether changes reported on teacher measures matched the behavior changes observed in the classroom. Pearson’s correlation coefficients were calculated by comparing the average percentage of intervals in each condition that a child demonstrated a coded behavior with the averaged teachers’ ratings on each of the DECA subscales for each condition. Table 9 provides a correlation matrix detailing relationships between children’s behaviors and teachers’ ratings. Teachers’ ratings of Initiative, Attachment, and Total Protective Factors on the DECA did not correlate with the occurrence of any of the behaviors recorded. Likewise, rates of engagement, compliance, and answers were not significantly correlated with DECA ratings. Results of this analysis indicate that
behavioral observations of disruptive behaviors were most consistently correlated with the teachers’ ratings on Self-control (SC) and Behavioral Concerns (BC) subscales.

Table 9
* * *

Averaged Teachers’ DECA Ratings Correlated with Observed Child Behaviors Over Time (n=35)

<table>
<thead>
<tr>
<th>Total Protective Factors</th>
<th>BL</th>
<th>CDI</th>
<th>TDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>.087</td>
<td>-.111</td>
<td>.227</td>
</tr>
<tr>
<td>Compliance</td>
<td>.110</td>
<td>.088</td>
<td>-.044</td>
</tr>
<tr>
<td>Answers</td>
<td>.120</td>
<td>-.155</td>
<td>.238</td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td>-.275</td>
<td>-.169</td>
<td>-.202</td>
</tr>
<tr>
<td>Initiative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>.064</td>
<td>-.124</td>
<td>.323</td>
</tr>
<tr>
<td>Compliance</td>
<td>.143</td>
<td>-.009</td>
<td>.051</td>
</tr>
<tr>
<td>Answers</td>
<td>.033</td>
<td>-.182</td>
<td>.261</td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td>-.251</td>
<td>-.108</td>
<td>-.072</td>
</tr>
<tr>
<td>Self-Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>.139</td>
<td>.082</td>
<td>.209</td>
</tr>
<tr>
<td>Compliance</td>
<td>.096</td>
<td>.326</td>
<td>.015</td>
</tr>
<tr>
<td>Answers</td>
<td>.124</td>
<td>.086</td>
<td>.205</td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td>-.374*</td>
<td>-.342*</td>
<td>-.445**</td>
</tr>
<tr>
<td>Attachment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>-.053</td>
<td>-.061</td>
<td>.181</td>
</tr>
<tr>
<td>Compliance</td>
<td>.003</td>
<td>.042</td>
<td>-.096</td>
</tr>
<tr>
<td>Answers</td>
<td>.121</td>
<td>-.132</td>
<td>.115</td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td>-.004</td>
<td>-.103</td>
<td>-.030</td>
</tr>
<tr>
<td>Behavior Concerns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>-.266</td>
<td>-.018</td>
<td>-.224</td>
</tr>
<tr>
<td>Compliance</td>
<td>-.233</td>
<td>-.228</td>
<td>-.035</td>
</tr>
<tr>
<td>Answers</td>
<td>-.307</td>
<td>-.056</td>
<td>-.192</td>
</tr>
<tr>
<td>Disruptive Behavior</td>
<td>.383*</td>
<td>.301</td>
<td>.339*</td>
</tr>
</tbody>
</table>

Notes: BL = Baseline; CDI= Child-Directed Interaction; TDI= Teacher-Directed Interaction.
* = p<.05, ** = p<.001.

Social Validity

Teachers were given evaluation forms to complete at the end of each phase. Eleven evaluations were returned, out of a possible fifteen. Average teacher ratings and aggregate comments are provided in Table 10. Teachers’ ratings reflected strong satisfaction with the TCIT intervention, with ratings falling between “agree” and “strongly agree” on all dimensions (M= 3.97, SD=0.16). Data suggest that overall teachers felt that the program was useful, that they had learned new skills, and they felt
better about their abilities to communicate with and control the children in their classrooms as a result of the intervention.
### Table 10

*Teacher Evaluations of the TCIT Program*

<table>
<thead>
<tr>
<th>Prompts</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. These sessions taught me skills I can use in my interactions with the children in my classroom.</td>
<td>4</td>
</tr>
<tr>
<td>2. These sessions made me feel better able to communicate with the children in my room.</td>
<td>4</td>
</tr>
<tr>
<td>3. These sessions made me feel better able to control and discipline the children in my room.</td>
<td>3.6</td>
</tr>
<tr>
<td>4. The activities helped me learn the material presented.</td>
<td>4</td>
</tr>
<tr>
<td>5. The trainers were knowledgeable and experienced in the topic covered.</td>
<td>4</td>
</tr>
<tr>
<td>6. The presentations and activities were organized and clear.</td>
<td>3.6</td>
</tr>
<tr>
<td>7. Overall, these sessions were useful.</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Open-Ended Questions

**The best features of the sessions were:**

- Gentle prompts and reminders, all of the praise/positive comments were great!
- Building positive relationships with children through the coaching and Pride skills
- Learning the PRIDE strategies and having the coaching to help implement them in the classroom
- The suggestion of using ‘Sit and Watch’ was helpful in managing challenging behavior
- Learning the skills and applying them directly in our class. Our team was able to decide how we wanted to implement sit and watch
- The timely coaching after each group session
- The feedback was immediate and ongoing
- I really appreciated the notebook which proved to be a good reference. Trainers were wonderful, sessions were relaxed – even jovial – but very productive
- I learned so much! Thank you

**Suggestions for improvements include:**

- Managing the equipment, keeping earbuds in, improvements were made as we went along.
- Better listening equipment

**Other comments and reactions I wish to offer:**

- It was a more positive experience than I had anticipated!
- This project has been a very helpful and useful tool. I wish I had this training years ago! I believe it is a tool I will always carry with me and use throughout my career with children
- I have enjoyed these trainings. I have learned a lot of valuable information and it has helped me foster better relationships with the children in our classroom
- All of the skills help us to be intentional about our interactions and discipline with the children, and they respond so positively!
- Hope there is opportunity for follow-through – particularly in K[kindergarten] and again in preschool
Section 4: Discussion

Positive interactions with significant adults can have lasting effects on a child’s social and emotional well-being. By improving the quality of relationships in a child’s life, a child may improve social-emotional competence and decrease problem behaviors. Preschool teachers can positively impact a child’s school experience and promote improved social, behavioral, and academic outcomes for years to come. Several variations of classroom-based adaptations of PCIT have been in development and previous research (e.g. Campbell, 2011) has demonstrated that teachers have been successfully coached in promoting more positive classroom environments. The current study was a replication of research evaluating the DePaul model of TCIT, a universal prevention program for behavior problems in preschool-age children (Lyon, et al., 2009; Gershenson, et al., 2010). The current study evaluated the effects of a TCIT program in two preschool classrooms utilizing a multiple baseline design across classrooms. In addition to observing teacher behaviors, this study also observed the children in the classrooms to assess changes in the children’s behavior as a result of the intervention.

The majority of children in this study spoke English as a second language, a population that has not previously been studied in respect to TCIT. Consistent with previous research, children were rated by teachers to measure perceived behavior change, and these ratings significantly correlated with rates of observed classroom behaviors.

Consistent with Lyon et al. (2009), the results of the current study indicated that teachers increased their use of PRIDE skills across TCIT, and the teachers indicated high satisfaction with the intervention. Also consistent with previous research (e.g. Legato, et al., 2013), teachers indicated positive child behavior change via the DECA ratings scales.
In addition, the results of the current study suggest that child behaviors changed as a result of the intervention, and teacher ratings correlated with child observational data.

As in previous research, teachers in both classrooms increased their use of PRIDE skills in accordance with the experimental design. That is, within the multiple baseline design, behaviors changed only when training related to those particular behaviors was implemented, in a sequential fashion. Although rates of PRIDE skills remained high at the onset of TDI, rates appear to decrease slightly over the course of TDI, when coaching is more focused on following through with commands and the implementation of “Sit and Watch” for rule-breaking behavior. This pattern of results appears to be consistent with that of other TCIT programs (e.g. Campbell, 2011; Lyon, et al., 2009; Madigan, 2011). Notably, coaching and observational coding rarely overlapped; therefore, teachers can be said to have demonstrated generalized use of the PRIDE skills over the course of the morning. Interobserver reliability collected for in-class observations met minimum reliability standards; therefore the behavior observations can be considered a valid assessment of teacher and child behavior change. Still, implementation of these behaviors remained highly variable throughout the intervention phases, which appears to be related to differences in classroom activities during observation periods, individual teacher differences, and other contextual factors. In future research, it may be useful to separate the different classroom activities (e.g. circle time, center time and clean up), or to examine each teacher’s behavior separately, since teachers engaged in different behavior at different times (e.g. assistants are quiet during circle time, when primary teacher is giving lesson), and therefore the summation of teacher’s behaviors may
conceal individual patterns. Furthermore, medians of each behavior may have offered more accurate assessments of teacher behavior.

In addition, 8-month follow-up data suggest that teachers maintained levels of PRIDE skills comparable to those at the cessation of this study (Figure 7). Upon reflecting about the reasons for such high levels of behavior maintenance, one needs to look no further than the teachers’ feedback on the evaluation forms: teachers found the intervention useful and saw that it worked in the classroom. Consistent with Stokes and Baer’s (1977) emphasis on programming generalization, the TCIT program can be said to utilize natural maintaining contingencies in order to promote the generalization and durability of the intervention. That is, teachers were trained and coached in their use of PRIDE skills and differential attention, and were themselves rewarded by the positive responses of the children. This encouraging consequence therefore increased their use of TCIT skills in the classroom, even when coaching was no longer in effect.

Teachers in both classrooms also reduced the incidence of “Avoid” skills, effectively decreasing their use of criticisms (Negative Talk), commands and questions from baseline levels. Rates of Negative Talk were already low at baseline, and decreased further over the course of the study. As hypothesized, commands increased slightly during TDI, an effect of the program’s focus on effective command sequences during that phase. However, commands continued to occur at levels below the baseline. In spite of questions being a standard and necessary activity in school classrooms, rates of questions decreased during CDI, and remained low in Class A (although Class B increased slightly). One target was to decrease superfluous questions, such as those to which children are not expected to respond (e.g. “Everybody ready?”). Instead, teachers were
encouraged to ask “thoughtful” questions or targeted questions to individual children. Decades of previous research has evaluated teacher questioning behavior (e.g. Wilen & Clegg, 1986), and elements of questioning that promote student achievement include phrasing questions clearly, asking academic questions, waiting 3-5 seconds for a response, and acknowledging correct responses. TCIT encourages the use of these effective questioning practices without interfering with natural classroom environment.

Children’s disruptive behavior also decreased in line with our hypotheses. We expected that disruptive behavior would decrease during both CDI and TDI; however, before disruptive behavior decreased during TDI, it actually reached its highest levels during CDI. These effects occurred in both classrooms, with both nominated and unnominated children. Campbell (2009) noticed similar effects, with one county increasing challenging behavior during CDI before decreasing in TDI. The observed increase in disruptive behavior during the CDI phase may be characterized as an extinction burst related to the changing social contingencies in the classroom. In an attempt to extinguish disruptive behavior, teachers withheld reinforcement for disruptive behaviors that previously would be reinforced by their attention by reorienting their attention to other children in the classroom who were engaging in more adaptive behaviors. The children in the classroom may have then increased the frequency of the undesired behavior in response to the extinction procedures (Cooper, Heron, & Hewerd, 2007). Another explanation considers the daily variability in disruptive behavior levels: given that disruptive behavior was averaged, daily means may have been elevated by individual children’s outbursts. In the future, median rates of disruptive behavior would not be as sensitive to outliers and could provide a more accurate assessment.
We expected a more pronounced decline in disruptive behaviors with nominated children, but both unnominated and nominated children demonstrated reductions in disruptive behavior, as evidenced through visual analysis of the data. Disruptive behavior increased at the end of the intervention for some children (i.e. Class A unnominated, Class B nominated), after trending downwards. Positive outcomes may have been more robust if the TDI phase had been in place longer, or if the program had begun at the onset of the school year, before classroom dynamics become fixed. On the other hand, this behavior may be related to the time of year (“May madness,” as the teachers called it), since it occurred on the same days in both classrooms.

In line with our hypotheses, averaged teachers’ DECA scores demonstrated significant changes across all subscales of protective factors and behavior concerns. Teachers’ data were meaned in order to provide a consensus view of the children’s behavior. Although previous research (Legato, et al., 2013) reduced teachers’ workload by dividing the DECAs among the teachers, our intraclass analyses indicated some variability in teachers’ ratings on subscales at different time points (α’s ranged from -.25 to .99, with an overall mean of 0.75, and a standard deviation of 0.23). Mean teachers’ ratings reflected both significant increases in adaptive behaviors and a significant decrease in behavioral concerns. These findings are consistent with earlier implementations of DePaul TCIT, which showed even stronger effects (Budd, Legato & Watkin, 2012).

Pairwise comparisons made it possible to examine when significant changes occurred. According to the teachers’ ratings, significant change occurred on the Initiative, Self-control, and Total Protective Factors scales between the ends of the CDI
and TDI phases. However, on Attachment and Behavioral Concerns scales, significant changes appear to have occurred by the end of the CDI phase. Further, the significant decrease in Behavioral Concerns was inconsistent with observational data, in which the level of disruptive behaviors was higher than baseline during CDI and lower than baseline in the final weeks of the intervention. This data suggests that concurrent with the positive attention skills on which they were being coached during CDI, teachers perceived the children as having more positive relationships with adults as well as showing fewer behavior problems, even though the children’s behavior did not actually improve until the TDI phase, when teachers were coached in effective discipline procedures. The shift in attention from negative to positive behavior likely biased the teachers’ perceptions, however, it also laid the groundwork for a more positive classroom in which children were more accepting of disciplinary procedures.

Finally, we observed that teachers’ ratings on the Self-Control and Behavioral Concerns subscales were significantly correlated with rates of observed disruptive behaviors. Given that rates of engagement, compliance, and questions did not vary in a consistent way, it was unsurprising that they did not correlate with any DECA protective factors subscales. No previous TCIT studies have validated the teachers’ ratings by correlating them with concurrent behavior observations. These data are among the first to increase confidence in DECA’s validity for documenting child behavior change.

Contrary to our hypotheses, no changes were observed in children’s classroom engagement (Compliance to Commands and Answers to Questions). Anecdotally, teachers in the current study observed increased participation and verbal language from many of the students, especially those learning English as a second language. We were
hoping that these changes would have been captured in the engagement measure, since it is a measurement of children’s responses to teachers’ prompts. Furthermore, we would have specifically expected compliance and answers to increase during TDI, during which time teachers were coached to follow through with commands and questions; however, no consistent changes were observed during either intervention phase, in either classroom, with either nominated or unnominated children. As mentioned previously, these inconsistent results could also account for the lack of correlation between rates of engagement (nor compliance or answers) and the DECA scales. Several explanations can account for these outcomes. First, whereas teachers may complete effective command and questions sequences while being coached, they may not “close the loop” during other observed times. During the current study we did not document the completion of an effective sequence, only the child’s response. Madigan (2011) coded teachers’ Effective Command Sequences, which increased over the course of the intervention in the training room but did not generalize to the classroom. Therefore, the impact of effective command sequences on children’s “On-task” behavior, “Appropriate” behavior, or compliance to commands could not be measured. Future studies should code for effective versus incomplete command and question sequences and attempt to measure its impact on child classroom behavior.

Another explanation is that perhaps our definition of “engagement” is not accurate or broad enough. Engagement appears unrelated to disruptive behavior, or else it would have been negatively correlated with the behavior concerns scale on the DECA, similar to the negative correlation of observed disruptive behavior and Self-Control ratings. Based on the behaviors observed in this study, classroom engagement seemed
most closely related to social competence in the classroom and the adaptive skills reflected in the Total Protective Factors scale. However, these constructs were not related. This begs to question: what behaviors reflect classroom engagement? Could any child’s verbalization be considered an attempt to engage in classroom activities? In addition, what observable behaviors relate to the positive changes captured on the DECA? Although Madigan (2011) reported inconclusive changes in child behavior, his observations of Appropriate and On-task behaviors may correspond to classroom engagement. Campbell’s (2009) was the only TCIT study which reported changes in child adaptive behavior; however none of the behaviors observed (including Cooperation with Adults, Peer Interactions, and Challenging Behaviors) were directly correlated with ratings scales. For future research, intervention goals should include increased children’s classroom engagement based on improved operational definitions that can capture changes through behavioral observation.

**Internal Validity**

Several factors could be considered threats to the internal validity of this study. First, the classrooms included in the study were selected by convenience; the principal of the school indicated which classrooms she believed would be agreeable to and benefit from the study. These factors could have made teachers more accepting of the intervention, which could potentially limit the generalizability of the study. It is also possible that the behavior changes demonstrated by the children could be a result of maturation. Similarly, changes in nominated children may be attributable to regression to the mean. Still, these explanations are unlikely given the changes’ correspondence with
the introduction of different phases of the intervention within the experimental design, which incorporated a sequential introduction of the interventions.

Findings from the current study would be strengthened with adjustments to the observation process. Blinded observers would be ideal to reduce the possibility of expectancy bias, and taking observations at other parts of the school day would enhance program generalization. Campbell (2009), for example, recorded observations during lunch and in school hallways in order to collect an assortment of child behaviors across different times and settings. Lastly, kappa values were moderate, and prevented some behaviors from being reliably analyzed. For this reason, we combined behaviors (e.g. PRIDE Skills, Compliance) to increase their reliability. Nevertheless, the observed changes on some individual behaviors, such as Behavior Descriptions, should be interpreted with caution. The low reliability of the observations could be attributed to behaviors being live coded. In spite of observers listening to the same interval recording, anecdotally, it appeared that the same behavior was being coded in different intervals, which would calculate to zero reliability for both intervals. In Lyon, et al., (2009) different observer pairs were analyzed separately so that weaker reliabilities could be identified and strengthened with additional training. Future research should track reliability regularly over the course of the study to reduce the potential for coding drift and inconsistent coding.

In the current study, teachers elected the children who were nominated for increased observation. Fox and Stinnett (1996) found that a child’s label can affect teachers’ prognostic outlook on a child’s outcomes. By having teachers identify children who present more of a challenge in the classroom, this could have inadvertently
supported an expectancy bias, in that the teachers then perceive and expect challenging behaviors from the nominated children and rate them according to that expectation. For the most part, teacher nomination was consistent with DECA, which is unsurprising since it is based on teacher ratings. This suggests that the DECA can provide a valid identification of children who present as more challenging without potentially biasing teachers; therefore, in future studies, if nominated children are targeted for analysis at all they should be identified by initial DECA ratings.

In addition, repeated administration of the DECA could have resulted in practice effects, incidentally training teachers to be more attuned to child characteristics. It is possible that this may have influenced the teachers’ ratings on subsequent DECAs. Guidelines in the DECA User’s Guide suggest that a post-test assessment can be collected a minimum of four weeks after baseline administration, but do not discuss repeated measures (LeBuffe & Naglieri, 1999b). Future studies should consider the costs and benefits of repeated scale administration.

**External Validity**

The inclusion of just one school in the current study would suggest limited generalizability; however the evidence of TCIT’s success with diverse populations is accumulating. In combination with the urban, low SES population served in the Lyon, et al. (2009) study, the current study replicates demonstrations that the TCIT program was effective with a primarily ESL group of children in regular education and Head Start classrooms in a rural area of the United States.

Since nominated children were observed more frequently, whole class results were weighted toward the behaviors of the nominated children and therefore may not be
representative. It may also be worth mentioning that the high variability in the daily behavior of unnominated children may have been a result of lower sampling frequency. For example, on some days observers only had the opportunity to code unnominated children’s responses to three or four commands each day, therefore rates of compliance might show more variability than if the children’s responses for ten commands were coded. The observed difference between 2/3 and 3/4 (9%) is greater than that between 6/10 and 7/11 (3%). For the future, it may be beneficial to observe each subset of children equally, even if they are eventually analyzed separately. These changes could improve the generalizability of the current results to other children.

Limitations

As mentioned earlier, one limitation of the current study is that it was implemented during the second half of the school year. At this point of the year many interpersonal dynamics between the teachers and children, including expectations of and reactions to disruptive behavior, have already been established and may be less amenable to intervention. These learned relational styles may lessen the effects of the program and both teacher and child outcomes might not be as strong as if TCIT were introduced at the inception of the school year. Therefore, future research might examine the degree of teacher and child behavior change that occurs if the program is implemented in the beginning of the school year.

Previous applications of TCIT have commented on its extensive time and resource requirement; however, the current study suggests that changes can occur with a minimal training commitment. A total of 60 hours was needed for training and coaching five teachers over the course of five months. Budd, Legato, and Watkin’s (2012) data
also suggest that TCIT can be successfully implemented by trained school personnel, and the program was successful with just 16-24 total hours of training and coaching.

**Recommendations for Future Research**

Combined with the positive response from teachers regarding satisfaction and feasibility of the program, results are encouraging and warrant replication in a larger, controlled study. Findings would be further strengthened by comparison with another treatment model (e.g. teaching skills workshop). A number of research directions offered by Gershenson, et al. (2010) have still yet to be explored, including the advantages and disadvantages of using mastery criteria, and the optimal number and length of coaching sessions. Another important area of investigation is the coaching variables that contribute to improved teacher outcomes. Although the training materials for TCIT are predetermined and listed in manuals for consistency, coaches can vary considerably in the types and amount of feedback they provide. We are also interested in evaluating the increases in verbal behavior for ESL students, as well as TCIT’s effects on academic outcomes, such as grades or a standardized achievement measure such as the Woodcock Johnson. It would also be important to evaluate the long-term changes in child behavior as a result of this early intervention. Lastly, given the teachers’ feedback on the difficulty with the earpiece, it might be beneficial to find a bug-in-the-ear that is less intrusive and prone to malfunction. In our continued research on TCIT, we hope to explore some of these variables.

**Implications for Practice**

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) calls for schools to offer students “positive behavioral interventions and supports.” Schools
across the nation are encouraged to offer teachers professional development around promoting positive social as well as instructional environments, and employing behavioral interventions to decrease disruptive behavior. As an alternative to more punitive manners of discipline, positive behavior support can serve to prevent as well as effectively intervene with discipline problems and support the social and academic competence of all students. TCIT’s procedures fit nicely with the policies of positive behavior support and can be implemented as a part of a program for teacher professional development. The TCIT program could also be a valuable tool in the teacher education curriculum, such as during student teaching experiences.

Similarly, TCIT is a classroom-based adaptation of PCIT, and can be used as part of a multi-systemic intervention for children, parents, and teachers. Similar to Webster-Stratton and Reid’s (2001) work with The Incredible Years, applying PCIT procedures at multiple levels of a child’s life increases consistency of the model’s implementation and thus the efficacy of the intervention. As an added benefit, TCIT, as the school-based model of PCIT, is garnering increasing empirical support as a standalone treatment, and as an adjunct to traditional PCIT may serve to enhance the PCIT model.

**Conclusion**

In general, the results of this research show that TCIT is an effective intervention to promote positive behavior support in the classroom. Research suggests that follow-up is integral for the success of any training program (e.g. Sigurdsson, 2013), and TCIT allows for continued consultation and feedback following initial workshops. Teachers successfully demonstrated increases in positive attention skills as a result of the combination of training and in vivo coaching, and these changes were related to
reductions in disruptive child behaviors, via both observation and teacher ratings. The results of this study contribute to an accumulating body of research that supports the efficacy of TCIT for the promotion of positive relationships between teachers and their students as well as the universal prevention of behavior problems in preschool children.
References


Appendix A: Submission to Internal Review Board

**James Madison University**

**HUMAN RESEARCH REVIEW REQUEST**

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<th>Full Board</th>
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**Investigators:** This form is required for Full Board or Expedited review for all JMU research involving human subjects. If you are eligible for an exemption request, please use the alternate form at: [http://www.jmu.edu/sponsprogrb/irbExemproRequest.doc](http://www.jmu.edu/sponsprogrb/irbExemproRequest.doc)

**FOR IRB USE ONLY:**
- Protocol Number: IRB-
- Received: 
- 1st Review: 
- 2nd Review: 
- 3rd Review: 

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**External Funding:**
- **YES**
- **NO**
- If **YES**, Sponsor(s):

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<td>Maximum Number of Participants</td>
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**Responsible Researcher(s):**
- Trevor Stokes, Ph.D.
- E-mail: stokesdf@jmu.edu
- Telephone: 540.892.9
- Department: Baird Center/Grad Psychology
- Address: 225 Blue Ridge Hall
- and/or (MSC): 9013

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

1. **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 the 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 those 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.

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<th>Signature of Researcher(s) and Faculty Advisor (if applicable)</th>
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<tr>
<td>Trevor Stokes, Ph.D., P-I</td>
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<td>James Madison University</td>
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<td>Karen Budd, Ph.D., Co P-I</td>
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<td>Heather White</td>
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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: stokest@jmu.edu
Research Advisor (if applicable): 
Phone: 

Purpose or Objective(s): (Investigator - Please Organize Material on the following page using the Topics Below)

- Limited to one page

Procedures (included are):
- Research design and sampling
- Method of collecting data (emphasize possible risks, and protection of subjects)
- Time frame of study

Data Analysis
- 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

- *Submit Proposal and Checklist Electronically To: JMU_grants@jmu.edu

Training, Testing and Form Completion Requirements

*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/sponsored/irb/Protocol/EvalForm.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 consistence 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 as 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 in two preschool 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.
Methods:

Participants

Two primary teachers and three instructional assistants from two preschool classrooms at Spotwood Elementary School in Harrisonburg will participate in TCIT during the Spring of 2011 (January through June). Each classroom has 18-20 students, ages 3-5. The two classrooms have been nominated by the Principal at Spotwood Elementary School and the teachers in each classroom have expressed 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 teachers' 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 seven JMU graduate (3) and undergraduate (4) student researchers were trained to master criteria on the classroom behavior scoring codes during the Fall semester of 2010. This training occurred in simulated conditions in research space at the Baird Center. Only research team members named in this proposal were involved in 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 5 minute period between 9:45 a.m. and 11:15 a.m. Observations will be conducted 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.

For each classroom, the teacher and the one or two instructional assistants will participate in 2 workshop sessions, on school-district designated "First Friday's" teacher training days. Workshops will occur with each classroom at different times, with the beginning of coaching also introduced sequentially across classrooms. 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) 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 will receive continuing education credits for participating in the workshops, coaching and evaluations. They will also be paid an honorarium of $200 for their participation, half of which will be paid after participation in each of the two training workshops. There will be a celebratory graduation session at the end of the project.

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.

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 skills taught are well-established methods of enhancing children's positive 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,
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 competing 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 $200.

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 to participation may be withdrawn at any time.

Confidentiality:

Observations of teachers, instructional assistants and children in their classrooms will be collected 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.

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. 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.

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 TCT 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.

**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 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.

**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. Blair 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 seven students who will participate in the research have been working with Dr. Stokes in the Fall semester of 2010, 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 information form
- Parent information letter
- DECA
- Teacher training evaluation form
- Teacher and Child Behavior observation definitions
- Letter of Permission from School District
**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 (AQN)** 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.
Consent to Participate in Research

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

Principal Investigator: Trevor Stokes, Ph.D.
225 Blue Ridge Hall, James Madison University
Harrisonburg, VA 22807
(540) 568 – 8829
stokesf@jmu.edu

Purpose of Study

The purpose of this study is to implement Teacher Child Interaction Training in preschool 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 two preschool classrooms and approximately 40 preschool students will participate in the TCIT program during the Spring of 2011. 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 2 workshop sessions, on designated “First Friday’s” teacher training days. Workshops will occur with each classroom at different times, with the beginning of coaching also introduced sequentially across classrooms. 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) 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 ($200) for their participation and assistance in evaluation. There will be a celebratory graduation session at the end of the project.

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. 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 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 Devereaux Early Childhood Assessment (DECA) at baseline, at the beginning of each coaching phase, at the end of coaching, and at a 2-6 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 while no changes are implemented in the second classroom. Subsequent delayed intervention in the second classroom replicates the effects of changes in the first classroom.

Time Required

Data collection for baselines will begin in January. For each classroom, the teacher and instructional assistant(s) will participate in 3 workshop sessions, on designated “First Friday’s” teacher training days. Initial training will be conducted on two of the following school designated days: February 4, March 4, and April 8. For each team of classroom personnel, Child Directed Interaction (CDI) procedures will be introduced at one training day and Teacher Directed Interaction (TDI) training will be introduced at the subsequent teacher training day a month later. Training workshops will be conducted in about a half day. There may be brief follow up sessions with the teachers and teacher assistants to answer questions subsequent to the training workshops. There will be a graduation session to review the program, to receive feedback, and to congratulate participation for both classroom teams on May 20, 2010.

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 Devereaux Early Childhood Assessment (DECA) 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. 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 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 $200. Half of this amount will be paid after each of the training workshops (CDI and TDI).

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.

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

Alvin Y. Baird Attention and Learning Disabilities Center
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, 2011

Dear Parent,

James Madison University has invited your child’s classroom teacher and instructional assistants at Spotswood Elementary School to participate in a specialized training series over the next few months 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.

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. Rather than focusing on any individual children, the program’s purpose is to help the entire classroom operate as smoothly as possible.

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.

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; stokest@jmu.edu). This training is a collaborative assessment between Spotswood Elementary School 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:  

James Madison University (JMU) ha invitado al maestro de su hijo y a los ayudantes de instrucción en Spotwood Elementary School a participar en una serie de cursos especializados durante del invierno y la primavera semestre (2011) para fomentar y mantener un clima de aula enriquecedora.

Los objetivos de estos cursos 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 curso es en las estrategias generales para el mantenimiento de un ambiente productivo en la aula.

Como parte del curso de formación, los maestros y ayudantes de maestros se les pedirá que evalúen 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 ninguna 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 compartida 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 utilicemos 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; stokesf@jmu.edu). Esta formación es una colaboración entre Spotwood 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
# Teacher-Child Interaction Training Evaluation Form

**Harrisonburg**

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

**Date:**

<table>
<thead>
<tr>
<th>Training Phase:</th>
<th>CDI Workshop</th>
<th>CDI Coach</th>
<th>TDI Workshop</th>
<th>TDI Coach</th>
</tr>
</thead>
</table>

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

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

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 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) 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 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. 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).

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 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 (AQ) 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

December 10, 2010

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
Appendix B: Workshop Training Materials

Spring 2011

TCIT

Teacher Child Interaction Training

Baird Center
Public Schools

Harrisonburg City Public Schools
Acknowledgements

The JMU/DePaul Teacher-Child Interaction Training (TCIT) Program would like to thank Dr. Sheila Eyberg (University of Florida), creator of Parent-Child Interaction Therapy (PCIT), on which TCIT is based. We would also like to thank Dr. Cheryl McNeil (West Virginia University), whose training series on understanding, preventing, and managing misbehavior in preschool classrooms provided ideas for some of the program content.

The DePaul TCIT program was developed and implemented over a period of three years through the generous support of the Kraft Employee Fund, Chicago, and the collaboration of teachers and staff at St Vincent de Paul Center in Chicago. We thank Sarah Watkin, Lauren Legato, and the DePaul graduate research team for their help with this project. We also acknowledge the excellent contributions of Jeff Jorgensen, David Stern, and Lori Rice of Independent School District #206 in Alexandria, Minnesota in the further development and implementation of TCIT.

This our first training program in TCIT in Virginia. We express our gratitude to Spotswood Elementary School and the Harrisonburg City Public Schools for welcoming TCIT. We want to thank you for your participation and commitment to the TCIT program.

Those interested in further information about the publications of the TCIT research team are welcome to contact Dr. Karen S. Budd, DePaul TCIT Program Director, at kbudd@depaul.edu.

Trevor F Stokes
Karen S Budd

JMU/DePaul TCIT Training
General
JMU/DePaul University TCIT Program
Staff and Contact Information
Spring, 2011

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7. Practice on Discriminating Labeled and Unlabeled Praise
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13. Practice on Descriptions
14. Negative Talk
15. Practice on Reducing Negative Talk
# TEACHER-CHILD INTERACTION TRAINING

## Child Directed Interaction Overview

<table>
<thead>
<tr>
<th>PRAISE appropriate behavior</th>
<th>PRIDE RULES</th>
<th>REASON</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>• Causes the behavior to increase.</td>
<td>Good job putting the toys away!</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lets child know what you like.</td>
<td>I like the way you’re playing so gently with the toys.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increases self esteem.</td>
<td>Great idea to make a fence for the horses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adds to the warmth of the relationship.</td>
<td>Thank you for sharing with me.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Makes both teacher and student feel good.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REFLECT appropriate talk</th>
<th>PRIDE RULES</th>
<th>REASON</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>• Lets the child lead the conversation.</td>
<td>Child: I drew a tree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shows the child that you are listening.</td>
<td>Teacher: Yes, you made a tree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Demonstrates that you accept and understand the child.</td>
<td>Child: The doggy has a black nose.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improves child’s speech and vocabulary.</td>
<td>Teacher: The dog’s nose is black.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increases verbal communication between teacher and child.</td>
<td>Child: I like to play with the blocks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Teacher: These blocks are fun.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMITATE appropriate play</th>
<th>PRIDE RULES</th>
<th>REASON</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>• Lets the child lead.</td>
<td>Child: I put a nose on the potato head.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shows child you approve of his/her game.</td>
<td>Teacher: I’m putting a nose on Mr. Potato Head too.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Makes the game fun for the child.</td>
<td>Child: (drawing circles on a piece of paper)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increases the child’s imitation of the things that you do.</td>
<td>Teacher: I’m going to draw circles on my paper just like you.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shows that you are involved and paying attention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Teaches child how to play with others and take turns.</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DESCRIBE appropriate behavior</th>
<th>PRIDE RULES</th>
<th>REASON</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>• Lets the child lead.</td>
<td>You’re making a tower.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shows child that you are interested.</td>
<td>You drew a square.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Teaches child concepts.</td>
<td>You are putting together Mr. Potato Head.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Models speech for the child.</td>
<td>You put the girl inside the fire truck.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Holds child’s attention on the task.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Organizes child’s thoughts about the activity.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### ENJOY

- Lets child know that you are enjoying the interaction.
- Increases the warmth of the play.
- Keeps the child interested.

Child: (carefully placing a blue Lego on a tower)  
Teacher: (gently touching the child's back) You are REALLY being gentle with the toys.

---

### TEACHER-CHILD INTERACTION TRAINING

#### Child Directed Interaction Overview

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

**Child Directed Interaction Overview**

<table>
<thead>
<tr>
<th>BEHAVIOR MANAGEMENT</th>
<th>REASON</th>
<th>EXAMPLES</th>
</tr>
</thead>
</table>
| **IGNORE negative behavior** (unless it is dangerous, destructive, or negatively impacting other children)  
a. Avoid looking at the child, smiling, frowning, etc.  
b. Be silent  
c. Ignore every time  
d. Expect the ignored behavior to increase at first  
e. Continue ignoring until child is doing something appropriate  
f. Praise child immediately for behavior that is opposite the annoying behavior |  
- Helps the child to notice the difference between your responses to good and bad behavior.  
- Although the ignored behavior may increase at first, consistent ignoring decreases many behaviors  
- Praising the positive opposite behavior lets the child know what he or she can do to please you – and win your approval  
| Child: (talks back to teacher and picks up toy).  
Teacher: (ignores talking back) Thank you for picking up the toy.  
Child: (pushing too hard on a crayon)  
Teacher: (ignores behavior until it stops and then praises child) Good job using the crayon carefully.  
Child: Look Mr. Vikki! Look Mr. Vikki! Look Mr. Vikki!  
Teacher: (continues)  
Child: (finally stops)  
Teacher: I like it that you are being quiet now.  
Child: (Whining)  
Teacher: (ignores whining and talks to self or other child until whining stops) I can see that you have your paper and crayons on the table and are ready to color!  
Child: (Jumping around in line)  
Teacher: (ignores jumping and says to child who is not moving) Wow, I really like how you are standing still in line.  
|  
| **STOP THE PLAY for aggressive and destructive behavior.** |  
- Teaches the child that good behavior is required in order to be able to play with you.  
- Shows child that you are setting limits. |  
| Child: (hits teacher).  
Teacher: (This can’t be ignored.) Our playtime is stopping because you hit me.  
Child: Oh, oh, oh teacher I’m sorry. Please, I’ll be good.  
Teacher: Our playtime is over now. Maybe next time you will be able to play nicely. |
Teacher CDI Coding Sheet

Date: ____________

**Observed** teacher's initial: ______________ Your name: ______________

<table>
<thead>
<tr>
<th>SKILLS</th>
<th>Tally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior Description</td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td></td>
</tr>
<tr>
<td>Labeled Praise</td>
<td></td>
</tr>
<tr>
<td>Unlabeled Praise</td>
<td></td>
</tr>
</tbody>
</table>

**TO AVOID**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Talk</td>
<td></td>
</tr>
<tr>
<td>Questions</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

JMU/DePaul TCIT Training
CDI
Teachers are Models for Their Students

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

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

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

♦ Sometimes, teachers accidentally do things that they don’t want their children to do, such as yelling or making overly critical comments.
  • This happens most in frustrating situations when you are angry. Children watch their teachers to learn how they themselves should deal with frustrating feelings or conflict with others.

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

♦ It is very confusing for children if they watch their teachers behave in a certain way, such as yelling when frustrated, and are then punished for yelling when frustrated.
  • You are a role model for your students
  • You are one of your students’ most important examples of how to act in school and other social situations
  • Your students learn to behave like you
WHAT CAN YOU DO WHEN YOU ARE ANGRY?

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

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

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

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

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

JMU/DePaul TCIT Training
CDI – from PCIT protocol – Sheila Eyberg
Praise

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

Unlabeled praise is global and nonspecific.
Examples: "Great!"  "Thanks for that."  "Good boy!"  "Nice job!"
          "Terrific!"  "You're wonderful!"  "I'm so proud of you!"

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

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

<table>
<thead>
<tr>
<th>Rule</th>
<th>Reason</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give Labeled Praise for appropriate</td>
<td>Causes the behavior to increase.</td>
<td>&quot;Terrific counting&quot;</td>
</tr>
<tr>
<td>behavior.</td>
<td>Lets child know what you like.</td>
<td>&quot;I like the way you're playing so quietly&quot;</td>
</tr>
<tr>
<td></td>
<td>Increases self-esteem.</td>
<td>&quot;You have wonderful ideas for this game&quot;</td>
</tr>
<tr>
<td></td>
<td>Adds to the warmth of the relationship.</td>
<td>&quot;I'm proud of you for remembering your letters&quot;</td>
</tr>
<tr>
<td></td>
<td>Makes both teacher and student feel good.</td>
<td></td>
</tr>
</tbody>
</table>
### How to Create Great Labeled Praises

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

JMU/DePaul TCIT Training
CDI
Practice on Discriminating Labeled and Unlabeled Praise

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

<table>
<thead>
<tr>
<th>Statement</th>
<th>Unlabeled Praise?</th>
<th>Labeled Praise?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wonderful job!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thank you for handing me the crayon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You’re great!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nice job sitting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good effort painting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awesome.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like it when you’re careful.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>That was kind of you to share.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thank you so much.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
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.

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

   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: ________________________________

JMU/DePaul TCIT Training
CDI
Questions

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

What are Questions?

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

♦ 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?"

♦ 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 is it?"

♦ 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?"

♦ 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?"
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?"

♦ 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?"

♦ Questions that repeat the same information.

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

What teachers can say instead of Questions:

<table>
<thead>
<tr>
<th>Examples of Questions</th>
<th>Alternative statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were you being mean to Bobbie?</td>
<td>Please use kind words.</td>
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<td>Are you going to build a long fence?</td>
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<td>I see Sally and Joshua have finished their snack.</td>
</tr>
<tr>
<td>Can you draw a cloud for me?</td>
<td>I see you are drawing.</td>
</tr>
<tr>
<td>Did you hear me say time is almost up?</td>
<td>It's time to clean up</td>
</tr>
<tr>
<td>Child: I'm done. Teacher: You're done?</td>
<td>Teacher: You are done.</td>
</tr>
</tbody>
</table>
Practice on Reducing Questions

How could you turn the following Questions into statements?

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

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

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

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

   
   Teacher: You like ice cream?
**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."

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

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Practice on Descriptions

Which of the following statements are behavioral descriptions?

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

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. ____________________________

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**Negative Talk**

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

**What is Negative Talk?**

- **Expresses disapproval** of the child or the child’s characteristics, activities, products, or choices. It is often used to tell a child to stop doing something.
  - Examples: “That’s not nice” “Your letters are crooked” “Stop fighting please”
  - “Not so fast” “Don’t eat that in here” “Your hands are filthy”

- **Correcting** the child’s behavior by pointing out what the child has done wrong, even in a nice way.
  - Examples: “Not so big” “No, that’s not blue” “That’s not quite right”
  - “No, no” “Oops, you dropped it” “Wrong way, honey”

- Another type of negative talk is sassy, sarcastic, and/or rude speech.
  - Examples: “That was smart!” (sarcastically) “What’s up with you today?”
  - “You’re driving me crazy!” “Clean that up or else!”

**Reasons to avoid Negative talk:**

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

**What teachers can say instead of Negative Talk:**

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

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Practice on Reducing Negative Talk

Which of the following statements are Negative Talk?

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

How could you turn the following Negative Talk statements into positive statements?

Don’t run in the hallway. _______________________

That’s the wrong letter, sweetie. _______________________

Stop fighting so we can go to recess. _______________________

Not quite right. _______________________

Not so fast, please. _______________________

JMU/DePaul TCIT Training
CDI
**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?"

- **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?"
  |

- **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?"

- **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?"
Drawbacks of some types of Questions:

- Some Questions suggest disapproval.

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<th>&quot;Are you sure you want to use the purple one?&quot;</th>
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- Some Questions suggest that you are not really listening to the child.

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<th>&quot;Which one did you tell me you wanted?&quot;</th>
<th>&quot;Did you say you were ready to work?&quot;</th>
<th>Child: &quot;I found the dog.&quot; Teacher: &quot;You found it?&quot;</th>
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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?"
|--------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------|

What teachers can say instead of Questions:

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<td>It's time to clean up</td>
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<tr>
<td>Child: I'm done. Teacher: You're done?</td>
<td>Teacher: You are done.</td>
</tr>
<tr>
<td>Why did the girl start crying? (during a story)</td>
<td>I wonder why the girl is crying.</td>
</tr>
</tbody>
</table>

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?

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

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

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

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

   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.

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

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

JMU/DePaul TCIT Training
CDI
Appendix C: Coaching Materials

JMU/DePaul TCIT Training
CDI Coaching Guidelines

Materials Needed

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

Goals of Coaching

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

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

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

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

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

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

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

❖ Coach for 10 minutes -- General coaching guidelines

- Focus on skills that appear to need the most work as observed during the 5-minute coding. You may also ask the teacher which skill she feels would be most helpful to focus on in coaching. If neither applies, please see below for standardized coaching guidelines.
- First Coaching Session (ideally with only 1-2 children)
  o Coaching Style: Attempt to give only positive feedback to teachers and ignore errors. Label your praises to teachers (e.g., “Good behavioral description” rather than “good”)”
  o Give labeled praises for ignoring inappropriate behaviors
• Second Coaching Session
  o Coaching Style: Continue praising the positive and start to give gentle corrections (ex. “Good job for what?” or “Oops, a question”) and directives (“Try to label that praise” or “Go ahead and praise her for sharing”)
  o Focus on decreasing questions and increasing reflections
  o Praise every reflection the teacher gives
  o After repeated questions that the teacher does not recognize, say “question” and prompt teacher to change question to a statement. Praise teacher for doing so.

• Third Coaching Session and Beyond
  o Coaching Style: Actively coach using directives, gentle corrections, and observations (“He’s playing so nicely with the toys, go ahead and give him a labeled praise for that” or “By saying thank you and your welcome, you just set a good example for polite manners”)
  o Focus on increasing teachers’ labeled praise
  o Praise the qualitative aspects of the interaction (timing, genuineness, warmth, change in the child’s behavior)
  o 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:
    o CDI skills that were the focus of coaching and how the teacher did (specific examples are very helpful)
    o Difficulties encountered, and skills still in need of further training/practice
    o Suggestions for the next coaching session (and if any were suggested by teacher)
    o Teacher’s comments or reactions related to coaching or classroom interactions, for discussion with TCIT team
### COMMON CDI COACHING STATEMENTS

<table>
<thead>
<tr>
<th>Labeled Praises</th>
<th>Gentle Correctives</th>
<th>Direct and Indirect Suggestions</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>That's good ignoring</td>
<td>You can just ignore that</td>
<td>Try to label that</td>
<td>That sounds very genuine</td>
</tr>
<tr>
<td>Nice imitating his play.</td>
<td>Let's only praise after she does it</td>
<td>Try holding it for her</td>
<td>You do a nice job of</td>
</tr>
<tr>
<td>Great way to help him learn</td>
<td>Those questions are hard to</td>
<td>Now make it a statement</td>
<td>combining the CDI</td>
</tr>
<tr>
<td>sharing</td>
<td>catch, aren't they?</td>
<td>Tell her what she's doing</td>
<td>skills</td>
</tr>
<tr>
<td>Nice timing on giving</td>
<td>Probably better to put that away</td>
<td>You can answer her question</td>
<td>She's talking more</td>
</tr>
<tr>
<td>attention again.</td>
<td>Let's wait until she does it on her own</td>
<td>Just ignore until he comes back</td>
<td>because you're</td>
</tr>
<tr>
<td>Great modeling gentle play</td>
<td>We don't need to give that attention</td>
<td>Just build the same thing she's building</td>
<td>reflecting</td>
</tr>
<tr>
<td>Good choice to ignore that</td>
<td>We don't want to get him too riled up</td>
<td>You can reflect that</td>
<td>You're doing that</td>
</tr>
<tr>
<td></td>
<td>Let's wait until she does it on her own</td>
<td>Maybe talk a little louder</td>
<td>She really wants to</td>
</tr>
<tr>
<td></td>
<td>Let's only praise after she does it</td>
<td>Praise her for picking it up</td>
<td>please you</td>
</tr>
<tr>
<td></td>
<td>Maybe you could say what's good about it</td>
<td>It's okay to help her</td>
<td>She slows down when</td>
</tr>
<tr>
<td></td>
<td>probably better to put that away</td>
<td>What are her hands doing?</td>
<td>you slow down.</td>
</tr>
</tbody>
</table>

### Observations

| That sounds very genuine              | He loves your praise.                                   | Now he’s imitating YOU                                  | He's talking softer    |
| You do a nice job of combining the    | He's been working on that for over 5 minutes            | He’s paying such close attention to you.                | now he is moving      |
| CDI skills                           |                                                          |                                                          | closer to you           |
| She’s talking more because you’re     | You play with her so warmly?                            | You sound so comfortable with the skills.               | He’s learning to take  |
| reflecting                            |                                                          |                                                          | turns.                |
| She’s watching how you’re doing      |                                                          |                                                          |                       |
| that                                 |                                                          |                                                          |                       |
| He’s talking softer now               |                                                          |                                                          |                       |
Part 2: Child Directed Interaction (CDI)
Expanded Outline
2-Hour Session

Materials Needed
- Attendance sheet (have everyone sign in upon arrival)
- CDI handouts and practice exercises for Part II – CDI Overview (3 pages), Reflections, Descriptions, and Thoughtful Questions (hole-punched for teachers’ binders)
- CDI Teacher Coding Sheets, toys, clipboards, and stopwatches
- Laminated PRIDE poster for the classroom

Goals of this Session
- Continue to establish rapport with the teachers
- Review teachers’ experiences with practicing skills and coaching
- Review total package of CDI skills and introduce specifics of Reflections, Descriptions, and Thoughtful Questions
- Model and role-play use of the skills as needed
- Discuss challenges, strategies, and real-world applications of PRIDE skills

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

Session Outline

❖ Welcome and overview (make sure each teacher has brought his/her binder)
- Have teachers think back to why they initially decided to become a teacher or teaching assistant (encourage focus on their caring motives -- fostering children’s positive development, enjoy children) -- this can be omitted if time is short and rapport is good
- Briefly list today’s agenda items:
  - Discuss teachers’ experiences with in-class coaching
  - Discuss homework activities
  - CDI overview of total package -- Parts 1 and 2 together
  - CDI handouts and practice exercises on Reflections, Descriptions, and Thoughtful Questions
  - CDI skills practice -- code and role-play
  - Assign homework exercises
  - Encourage teachers to continue to ask questions & make suggestions to enhance usefulness of training

❖ Discuss teachers’ experiences with in-class coaching
- Ask about positives and negatives of in-class coaching sessions – solicit input from all teachers and acknowledge it may have been intimidating, inconvenient, or awkward
- Describe and praise examples of teachers’ skills and learning during coaching
- Encourage discussion of ways to make coaching helpful for teachers and not intrusive
Discuss assigned homework activities on Praise, Ignoring, and reducing Negative Talk

- Invite teachers to describe the skills used during the homework and praise them for completing homework (especially if they got in daily practice sessions!)
- Ask teachers to describe their observations re: current or potential use of skills -- note similarities and differences across teachers in teaching styles, & brain-storm ways to use skills for challenging behaviors identified by teachers
- Restate definitions & examples of praise (plus avoiding negative talk & how to handle misbehavior) during teachers’ descriptions
- Collect weekly CDI homework, unless already turned in

Overview of total CDI package: Parts 1 and 2

- Reminder of rationale -- CDI designed to build positive relationships & strengthen children’s prosocial behaviors, so that discipline techniques will be effective
- Reminder of basic rule for CDI -- follow the child’s lead by encouraging & attending to the child’s appropriate behavior
- Today, we are adding more ways to follow the child’s lead through supportive attention
- Review the CDI Overview (3 pages) to highlight and briefly describe the new skills along with those covered in Part 1
  o Note use of PRIDE acronym to refer to various forms of positive teacher attention – Praise, Reflections, Imitation, Descriptions, and Enthusiasm (page 1) – note that we will discuss Reflections & Descriptions further in a minute
  o Describe forms of attention to use sparingly or avoid (page 2) – Commands, Questions, and Negative Talk – because these behaviors take the lead away from the child and can make the interaction less pleasant
    - Acknowledge that, in a classroom settings, questions and commands are often necessary and appropriate
    - Our goal is to help teachers be thoughtful about when they are needed and to consider alternative ways to provide attention that may be more helpful in promoting children’s cooperation and learning
    - We will discuss Questions further today, and we will cover Commands in the TDI phase
  o Note strategies for reducing inappropriate behavior (page 3) – Ignoring and Stopping the play for serious misbehavior

Introduce specifics of Reflections and Descriptions

- Review and discuss 1-page description of Reflections
- Emphasize function of Reflections in modeling and improving child speech, and to let the child know you are listening to them
- Have teachers complete practice examples & discuss
- Briefly model skills – have teachers note occurrences of Reflections
- Review and discuss 1-page description of Descriptions
- Emphasize function of teacher’s attention in Descriptions as a positive reinforcer for child’s current behavior (note difference between describing the objects and the child’s behavior, e.g., “the car is going fast” versus “you are making the car go fast”)
- Notice the difference between Labeled Praise and Descriptions – both serve as ways to focus the child on current behavior and encourage it to continue
• Have teachers complete practice examples & discuss
• Briefly model skills — have teachers note occurrences of Descriptions

❖ Demonstration of CDI Skills

• Have trainers or TGIT-experienced teacher demonstrate the combination of CDI skills in a role-play
• Have teachers comment on the interaction in general and discuss examples of the use of new PRIDE skills

-- 15-min break --

❖ Live demonstration and have teachers try to code Reflections and Descriptions as they occur

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

❖ Introduce specifics of using Thoughtful Questions

• Discuss 1-page handout on Thoughtful Questions
• Have teachers complete practice examples and discuss — encourage teachers to think of ways they could change Questions into Descriptions, Reflections, Praise, or a neutral statement
• Discuss how Reflections can often sound like Questions with a rise in the inflection at the end of the sentence -- it's a tricky habit to break and takes practice. Provide examples and practice changing Thoughtful Questions to Reflections by altering the inflection at the end.
• Briefly model skills — have teachers note occurrences of Questions and ways of reducing questions through use of PRIDE skills

❖ Teachers and trainers practice using Reflections and Descriptions and reducing Questions in role-plays as time allows

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

❖ Closing

• Discuss next week's homework activity and note slight changes across weeks 1-4
• Provide teachers with PRIDE posters to hang up in their classrooms
• Discuss times for coaching (as appropriate) and arrangements for TDI training
• Invite feedback and suggestions, so we can make the training as helpful as possible
CDI Session 1
Expanded Outline
3-Hour Session

Materials Needed

- Attendance sheet (have everyone sign in upon arrival)
- Pens
- TCIT binders
- Computer to show videotape of CDI skills
- CDI Teacher Coding Sheets
- Toys
- Clipboards with stopwatches
- Ear buds and transmitters for coaching
- Laminated PRIDE poster for the classroom

Goals of this Session

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

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

Session Outline

❖ Welcome and introductions

- Thank teachers for allowing us to observe in their classrooms
  - Note how helpful it has been & comment briefly on positive aspects observed
  - Emphasize that teachers are experts of their classrooms -- we will be there to help with skills, but we recognize the tensions of having us in the classroom
  - Briefly list agenda items (getting acquainted, learning about teachers’ views from pre-training exercise, and introducing first set of basic skills in TCIT)
- Have teachers & trainers describe a bit about themselves
- Have teachers think of their favorite teacher and what made that person special (encourage focus on positive teacher behaviors)
- Encourage teachers to ask questions & make suggestions to enhance usefulness of training
- Distribute TCIT Binders – review tabs for different sections
  - General information
Overview: Development and Goals of TCIT

- Brief snapshot of PCIT, on which TCIT is based
  - Developed over 30 years ago by Dr. Sheila Eyberg
  - Focus on children aged 2-7 with disruptive behavior problems
  - Goals: increase positive relationships & parents’ use of effective behavior management techniques
  - Two phases – CDI & PDI – parents achieve mastery of each one before progressing
  - Unique feature of PCIT is direct coaching of parents during play with their children to help parents learn the skills
  - Extensive research showing its effectiveness with parents & children

TCIT

- Developed by Dr. Karen Budd and colleagues in past few years, based on teachers’ interest in learning the skills parents were being taught in PCIT
- Focuses on all children in classroom rather than only those with behavior problems
- Goals: prevention of problems and promotion of positive classroom environment, by increasing positive relationships & use of effective behavior management techniques – methods adapted to classroom setting
- Small group training with teachers (& coaching in classroom)
- Two phases – same as for PCIT, but time-limited
  - CDI -- focus of today’s session
  - TDI section of binder – for introducing Teacher-Directed Interaction techniques in sessions next month
- As with PCIT, coaching is an integral component
  - Note that we will schedule 20-minute coaching sessions with teachers to work 1:1 in the classroom beginning on Monday
  - Support and training objectives rather than evaluation and critique
  - Emphasize positive and constructive feedback/cooperation between teachers
  - Focus on working as a team and providing a consistent environment (requires that everyone be on the same page)
- We have trained teachers in Chicago and in Minnesota, and this is our first opportunity to introduce TCIT in Virginia -- thanks!!

Review pre-training exercise

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

JMU/DePaul TCIT Training
CDI 1
CDI overview

- Introduce rationale, basic goals, & when most appropriate to use in classroom
- Rationale – CDI designed to build positive relationships & strengthen children's prosocial behaviors, so that discipline techniques will be effective
- Basic rule of CDI is to follow the child's lead by encouraging & attending to the child's appropriate behavior
- Same skills play therapists use to help children feel calm & safe
- Especially helpful for children with limited attention span or easily frustrated
- Improves children's self-esteem & social skills
- CDI skills can be used can be used anytime, but they are easiest to focus on in free time or unstructured play
- Specific rules (refer to CDI overview sheets for examples)
  - Discuss what to avoid during CDI (excessive commands, excessive or rapid fire questions, negative statements)
  - Acknowledge that, in a classroom setting, questions and commands are often necessary and appropriate
  - Our goal is not to eliminate questions and commands in CDI but to consider alternative ways to providing attention that may be more helpful in promoting children's cooperation and learning
  - Negative statements provide information on what children are doing wrong, which occasionally is needed, but often there are other ways to communicate this information
  - Discuss & briefly model what to increase during CDI (i.e., each PRIDE skill)
  - Discuss what to do if child misbehaves during CDI (ignore or stop the play)
- Discuss best activities and time to practice PRIDE skills in playtime
  - Have teachers generate ideas of unstructured play activities (e.g., drawing, blocks, water table, & other ‘quiet’ toys without rules)
  - Have teachers list typical times for free play activities in their classrooms (will serve as ideas for coaching times)

Video demonstration of CDI skills

- Show first 5 mins of video of Lori using CDI skills with one child
- Have teachers comment on the interaction in general and recall instances of CDI skills

-- 15-min break --

Reshow video and have teachers try to code specific PRIDE skills as they occur

- Pass out and go over teacher coding sheets
- Have teachers tally behaviors while replaying the video, & discuss

Teachers and trainers practice using CDI skills in role-plays

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

❖ Discuss homework activity for teachers to complete during next week -- one 5-min practice session each day using the PRIDE skills

• For the first week, the activity involves having teachers practice with one child (e.g., in a free play or table activity)
• Have teachers offer types of activities when they could practice
• Refer to homework activity forms in binders for teachers to fill out. Answer questions regarding completion of the form.
• Review purpose of homework -- as practice to be expanded to other classroom activities
• Note that the homework activity changes slightly across succeeding weeks, so teachers practice use of PRIDE skills with gradually more children and in varied types of classroom activities
• Arrange when teachers will turn in homework for the week (on Mondays, picked up by coach?)

❖ Discuss plan for 20-min Individual coaching beginning next week

• Note that the coaching session begins with having the trainer observe a teacher individually for 5 minutes, then coach for 10 minutes & give feedback for 2-3 minutes
• Explain that coaching involves commenting "in the moment" to teacher on her use of CDI skills while teacher interacts with children
• Show teachers the coaching equipment and display its use
• Note that some teachers have said it can be difficult at first to focus on all the skills while we are coaching them live. However, teachers have reported that it is a great learning experience. We invite teacher feedback about their reactions and suggestions on the coaching
• Coaching usually on Monday or Tuesday, plus other days depending on schedules and snow days, etc.

❖ Closing

• Give teachers PRIDE skills poster to display in the classroom
• Note that we have provided additional handouts on the PRIDE skills in the binder
  • First two are general handouts on teachers as models for children and on suggestions for handling anger -- teachers can read these on their own
  • Others are specifics on various PRIDE skills
• Arrange a weekly time (e.g., 30-45 mins) to meet with the teachers as a group over the next three weeks to review the handouts, discuss how coaching is going, and problem-solve any issues. Usually on Mondays.
• Invite teachers’ feedback and suggestions, so we can make the training as helpful as possible
CDI Session 2
Expanded Outline
30- to 45-Minute Session

Materials Needed

- Attendance sheet (have everyone sign in upon arrival)
- CDI Teacher Coding Sheets, toys, clipboards and stopwatches -- optional

Goals of this Session

- Continue to establish rapport with the teachers
- Review teachers’ experiences with practicing skills and coaching
- Introduce specifics of Labeled Praise and planned ignoring
- Model and role-play use of the skills as needed
- Discuss challenges, strategies, and real-world applications of PRIDE skills

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

Session Outline

❖ Welcome and overview (make sure each teacher has brought her binder)

- Have teachers think back to why they initially decided to become a teacher or teaching assistant (encourage focus on their caring motives -- fostering children’s positive development, enjoy children) -- this item can be omitted if time is short and rapport is good
- Briefly list today’s agenda items (discuss teachers’ experiences in using skills, and go over homework activities review details on one of the PRIDE skills)
- Encourage teachers to ask questions & make suggestions to enhance usefulness of training

❖ Discuss teachers’ experiences with in-class coaching

- Ask about positives and negatives of in-class coaching sessions – solicit input from all teachers and acknowledge it may have been intimidating, inconvenient, or awkward
- Describe and praise examples of teachers’ skills and learning during coaching
- Encourage discussion of ways to make coaching helpful for teachers and not intrusive
- Encourage teachers to think about what they would like to focus on in coaching

❖ Discuss assigned homework activity on PRIDE skills

- Invite teachers to describe the PRIDE skills used during the homework and praise them for completing homework (especially if they got in daily practice sessions!)
- Ask teachers to describe their observations re: current or potential use of PRIDE skills -- note similarities and differences across teachers in teaching styles, & brain-storm ways to use PRIDE skills for challenging behaviors identified by teachers
• Restate definitions & examples of all PRIDE skills (plus what to avoid & how to handle misbehavior) during teachers’ descriptions
• Collect homework (CDI homework week 1), unless already turned in

❖ Introduce specifics of Praise and planned ignoring

• Review and discuss 1-page description of Praise in CDI section of binder
• Emphasize the power of praise, especially Labeled Praise, in strengthening child behavior
• Review the description on How to Create Great Labeled Praises
• Have teachers complete practice examples and discuss
• Discuss ignoring, referring to points on CDI skills overview sheet
  o Emphasize teaching function of differential attention to clarify desired from undesired behavior. Reinforces positive behavior, thus increasing the likelihood that it will reoccur.
  o Model the difference between “calm” ignoring and emotionally charged actions (negative looks, gestures) that telegraph the teacher’s disapproval & therefore most likely serve as reinforcers rather than effective ignoring
  o Note usefulness of turning attention to another child as another form of ignoring
• Review what to do when behavior can’t be ignored – state classroom rule or stop the play
• State importance of continuing to ignore the behavior, as the negative behavior may get worse before it gets better. We do not want the child to learn that louder or extreme behaviors get them what they want.
• Briefly model skills – have teachers note occurrences of Labeled Praise and ignoring
• Have teachers role-play and code each other using skills as needed and time allows

❖ Closing

• Discuss next week’s homework activity to clarify change in homework context for week 2
• Discuss times for 20-min individual coaching in coming week
• Invite feedback and suggestions
CDI Session 3
Expanded Outline
30- to 45-Minute Session

Materials Needed

- Attendance sheet (have everyone sign in upon arrival)
- CDI Teacher Coding Sheets, toys, clipboards and stopwatches – optional

Goals of this Session

- Continue to establish rapport with the teachers
- Review teachers’ experiences with practicing skills and coaching
- Introduce specifics of Reflections and Questions
- Model and role-play use of the skills as needed
- Discuss challenges, strategies, and real-world applications of PRIDE skills

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

Session Outline

❖ Welcome and overview (make sure each teacher has brought her binder)

- Have teachers recall a classroom situation when they were really angry & how they dealt with it (comment on internal & external signs of anger and how it impacts our ability to handle challenging situations)
- Briefly list today’s agenda items (discuss teachers’ experiences in using skills, go over homework, and review details on two of the PRIDE skills)
- Encourage teachers to ask questions & make suggestions to enhance usefulness of training

❖ Discuss teachers’ experiences with in-class coaching

- Ask about positives and negatives of in-class coaching sessions – solicit input from all teachers and acknowledge it may have been intimidating, inconvenient, or awkward
- Describe and praise examples of teachers’ skills and learning during coaching
- Encourage discussion of ways to make coaching helpful for teachers and not intrusive
- Encourage teachers to think about what they would like to focus on in coaching

❖ Discuss assigned homework activity on PRIDE skills

- Return completed homework forms with stickers and thank teachers for doing them (do this as teachers convene, so as not to call attention to teachers who did not turn in homework)
- Invite teachers to describe the PRIDE skills used during the homework and praise them for completing homework (especially if they got in daily practice sessions!)
• Ask teachers to describe their observations re: current or potential use of PRIDE skills – note similarities and differences across teachers in teaching styles, & brain-storm ways to use PRIDE skills for challenging behaviors identified by teachers
• Ask teachers to think of examples of PRIDE skills used by other teachers on their team
• Collect homework (CDI homework 2) unless already turned in

❖ Introduce specifics of Reflections and reducing Questions

• Review and discuss 1-page description of Reflections in CDI section of binder
• Emphasize function of Reflections in reinforcing and improving child speech, and as an alternative way to provide attention for desired child behavior
• Have teachers complete practice examples & discuss
• Discuss 1-page handout on Questions
• Have teachers complete practice examples and discuss -- encourage teachers to think of ways they could change Questions into Descriptions, Praise, or a neutral statement
• Briefly model skills -- have teachers note occurrences of Reflections and the reduction of Questions
• Have teachers role-play and code each other using skills as needed and time allows

❖ Closing

• Discuss next week’s homework activity to clarify change in homework context for week 3
• Discuss times for 20-min individual coaching in coming week
• Invite feedback and suggestions
CDI Session 4
Expanded Outline
30- to 45-Minute Session

Materials Needed
- Attendance sheet (have everyone sign in upon arrival)
- CDI Teacher Coding Sheets, toys, clipboards and stopwatches – optional
- Training Evaluation Forms and manila envelope

Goals of this Session
- Continue to establish rapport with the teachers
- Review teachers' experiences with practicing skills and coaching
- Introduce specifics of Descriptions and Negative Talk
- Model and role-play use of the skills as needed
- Discuss challenges, strategies, and real-world applications of PRIDE skills
- Collect Teacher Evaluation Forms on CDI phase of training

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

Session Outline

❖ Welcome and overview (make sure each teacher has brought her binder)
  - Remind teachers that this is the last week of coaching on CDI, and that we will begin TDI training next week
  - Briefly list today's agenda items (discuss teachers' experiences in using skills, review details on two of the PRIDE skills, go over homework activities, collect evaluations on CDI training phase, and plan for introduction of TDI phase)
  - Encourage teachers to ask questions & make suggestions to enhance usefulness of training

❖ Discuss teachers' experiences with in-class coaching
  - Ask about positives and negatives of in-class coaching sessions – solicit input from all teachers and acknowledge it may have been intimidating, inconvenient, or awkward
  - Describe and praise examples of teachers' skills and learning during coaching
  - Encourage discussion of ways to make coaching helpful for teachers and not intrusive
  - Encourage teachers to think about what they would like to focus on in coaching

❖ Discuss assigned homework activity on PRIDE skills
  - Return completed homework forms with stickers and thank teachers for doing them (do this as teachers convene, so as not to call attention to teachers who did not turn in homework)
• Invite teachers to describe the PRIDE skills used during the homework and praise them for completing homework (especially if they got in daily practice sessions!)
• Ask teachers to describe their observations re: current or potential use of PRIDE skills -- note similarities and differences across teachers in teaching styles, & brainstorm ways to use PRIDE skills for challenging behaviors identified by teachers
• Ask teachers to think of examples of PRIDE skills used by other teachers on their team
• Have teachers turn in homework forms (CDI homework 3) unless already turned in

❖ Introduce specifics of Descriptions and reducing Negative Talk

• Review and discuss 1-page description of Descriptions in CDI section of binder
• Emphasize function of teacher’s attention in Descriptions as a positive reinforcer for child’s current behavior (note difference between describing the objects and the child’s behavior, e.g., “the car is going fast” versus “you are making the car go fast!”)
• Have teachers complete practice examples & discuss
• Discuss 1-page description of Negative Talk
  o Note that critical statements can damage children’s self-esteem, create an unpleasant interaction, and unwittingly increase the behavior they follow
  o Note that Negative Talk in the form of sarcasm or sassy talk is confusing for young children, as they rely on tone rather than content (and model behavior we don’t want children to emulate)
  o Corrections (e.g., “no,” or “that’s not quite right”) sometimes are needed but often can be provided in ways that do not directly point out what was wrong (provide positive examples from our observations of the classroom)
• Have teachers complete practice examples & discuss
• Briefly model skills -- have teachers note occurrences of Descriptions and the reduction of Negative Talk
• Have teachers role-play and code each other using skills as needed and time allows

❖ Distribute Training Evaluation Forms and collect

• Ask teachers to complete Teacher Evaluation Forms on CDI phase -- ask them to mark that box at the top of the form and not to put their names on them
• Invite them to add comments and suggestions
• Collect completed forms in a manila envelope

❖ Closing

• Discuss times for coaching (as appropriate) and arrangements for TDI training
• Invite feedback and suggestions
# TCIT Coding Sheet

- Baseline
- CDI
- TDI

**Date:** __________  **Time:** __________  **Coder name:** __________  **Room:** __________  

- Observed teacher\'s initials: __________  
- # Children in Class: __________  
- # Teachers: __________  
- # Other Adults: __________

**Type of Observation:**  Coding Only or Coding before Coaching  
**Total Mins Observed:** __________

**Activity:**  
- □ Circle Time  
- □ Free play  
- □ Transition  
- □ Food  
- □ Leader  
- □ Non-leader  
- □ 1:1/Small Group  
- □ Type of Activity: __________
- □ Story  
- □ Teaching  
- □ Singing  
- □ Other: __________  
- □ Other: __________ (e.g., outside, hall)  

<table>
<thead>
<tr>
<th>CDI SKILLS</th>
<th>Tally Occurrences</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labeled Praise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlabeled Praise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TO AVOID**

- Negative Talk
- Questions

---

**TDI SKILLS**

<table>
<thead>
<tr>
<th>Commands</th>
<th>Appropriate Follow Through (e.g., repeat command, praise, guidance, if-then statement)</th>
<th>Sit &amp; Watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective (DC + not NOC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ineffective (IC or NOC)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Teacher-Child Interaction Training Evaluation Form

JMU/DePaul

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

**Date:** 

**Training Phase:** □ CDI Phase □ TDI Phase

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

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

The best features of the sessions were:

Suggestions for improvements include:

Other comments and reactions I wish to offer: