THE CONTRIBUTIONS OF INSTRUCTION TYPE, PROXIMITY, AND CONTINGENT PRAISE IN A COMPLIANCE TRAINING MODEL

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THE CONTRIBUTIONS OF INSTRUCTION TYPE, PROXIMITY, AND CONTINGENT PRAISE IN A COMPLIANCE TRAINING MODEL

by

Jennifer Rice Griffin

Abstract of a Dissertation
Submitted to the Graduate Studies Office of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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ABSTRACT
THE CONTRIBUTIONS OF TEACHER PROXIMITY AND CONTINGENT PRAISE TO EFFECTIVE INSTRUCTION DELIVERY IN COMPLIANCE TRAINING
by Jennifer Rice Griffin
August 2007
The present study utilized 2 multiple baseline across participants designs to evaluate the effects of instruction type as well as the addition of Contingent Praise (CP) to Effective Instruction Delivery (EID) for increasing compliance of children. A second purpose of the study was to evaluate the effects of proximity (close versus distant) on the compliance of children while giving specific instructions to the teacher for proximal distance. A final purpose of the study was to examine if the addition of CP would increase levels of compliance above those obtained during the previous phases. Participants were 4 students in grades 1, 4, and 5. Group 1 consisted of 2 students who received commands from their teacher who was within 5 feet. Group 2 included 2 students who received commands from their teacher who was at a distance of greater than 10 feet. Following baseline, one teacher in each group delivered commands in the form of a statement then a question in the following phase. The other teacher in the group delivered commands in the form of a question then a statement in the following phase. All four teachers were instructed to deliver CP along with commands as statements in the final phase. The results indicated that commands may be more effective if given in the form of a statement as well as in close proximity. Additionally, the results suggested that EID can be successful in increasing levels of compliance; however, CP may be necessary to achieve further increases in compliance beyond those obtained by EID alone.
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CHAPTER I
INTRODUCTION

The misbehavior of children has been a common, reoccurring problem for educators and parents. Noncompliance, the failure of a child to comply with adult commands or instructions within a certain amount of time, is an important and serious behavior problem (Christophersen, 1988; Mandal, Olmi, Edwards, Tingstrom, & Benoit, 2000; Rhode, Jenson, & Reavis, 1993). Noncompliance can sometimes serve as an antecedent for further misbehavior and disruption in the classroom. Dealing with a noncompliant child in the classroom can consume valuable time a teacher could otherwise spend on teaching. As a result, educators must be able to manage disruptive behaviors resulting from noncompliance (Etscheidt, Stainback, & Stainback, 1984).

Noncompliance in the classroom often interferes with a child’s ability to learn (Ford, Olmi, Edwards, & Tingstrom, 2001). Children who are noncompliant are often labeled as a discipline problem or as having academic problems (Schutte & Hopkins, 1970). It has been suggested that a child’s education may be hindered if compliance levels fall below 40% due to a decrease in time on-task (Rhode et al., 1993). According to Ford et al. and Martens and Kelly (1993), compliance with teacher instructions is necessary for effective learning. Ducharme and Popynick (1993) reported that compliance is an important behavior in contributing to a reduction of incidences of other inappropriate behaviors. Therefore, a strategy for child management is needed to increase compliance and decrease misbehavior.

When investigating compliance, two important aspects are antecedent and consequent manipulations. The antecedent components set the opportunity for the child’s
compliance (Ford et al.). Additionally, the manipulation of consequences to compliance has been shown to be effective in increasing compliance (Bellipanni, 2003; Roberts, 2003; Schutte & Hopkins, 1970). The University of Southern Mississippi (USM) School Psychology training program employs both antecedent and consequent manipulations in The Compliance Training for Children (CTC) model.

Compliance Training for Children Model

The CTC model offered in the USM School Psychology training program was developed to address the number of referrals made for noncompliance in children. The package focuses on manipulations of antecedents and consequences to increase compliance in children. A variety of studies have been conducted at USM incorporating the CTC model adapted from the work of several authors, including those who originally developed behavioral parent training programs (McMahon & Forehand, 2003; Rhode et al., 1993). The model focuses on various antecedent manipulations such as TI for generally appropriate behavior and EID, which contains several components such as descriptive commands, eye contact, proximity, directives, and a 3-5 s latency period for compliance. The compliance training package also includes consequent manipulations such as CP for compliance and TO for noncompliance.

Antecedent procedures, events that precede behavior, particularly compliance or noncompliance, focus on aspects of the command or instruction given and enriching the reinforcing environment of the child (Ford et al., 2001). Procedures that have been manipulated consist of time-in (TI) for generally appropriate behavior, the type of instructions or commands (direct, indirect, or question format), and features of the instructions or commands (e.g., eye contact, proximity; Benoit, Edwards, Olmi,
Wilczynski, & Mandal, 2001; Everett, Olmi, Edwards, and Tingstrom, 2005; Ford et al., 2001; Mandal et al., 2000; Olmi, Sevier, & Nastasi, 1997; Marlow, Tingstrom, Olmi, & Edwards, 1997). TI is designed to reinforce generally appropriate behavior, which provides an enriched environment for the child (Roberts, 2003). The type of command and features of that command are referred to as effective instruction delivery (EID) procedures. Specifically, EID includes eye contact, descriptive wording, directives, proximity, and latency allowed for compliance when delivering instructions/commands.

Consequent manipulations to increase compliance are contingent upon the child’s behavior and include contingent praise (CP) for compliance and time-out (TO) procedures for noncompliance. Specific elements of the CTC model, as well as the model in its entirety, have been found to be effective in many different settings (e.g., home, clinic, classroom) and with a variety of populations (e.g., children with speech and language disorders, developmental disabilities, or oppositional defiant disorder; Benoit et al., 2001; Ford et al., 2001; Mandal et al., 2000; Olmi et al., 1997; Marlow et al., 1997).

Because the present study deals with the antecedent and consequent manipulations of EID and CP, the following review will focus exclusively on these components of the CTC Model. The reader is directed to Ford et al. (2001), Marlow et al. (1997), and Olmi et al. (1997) for reviews of investigations at USM incorporating TI and TO.

**Effective Instruction Delivery**

Various studies have focused on the instruction delivery process in an attempt to manipulate antecedents to increase compliance (Houlihan, Vincent, Ellison, & Jones, 1994). EID is defined by Ford et al. (2001) as including the following components: (a)
delivering the instruction with eye contact, (b) delivering the instruction within a proximity of 3 feet of the child, (c) stating the instruction as a directive, (d) stating the instruction in descriptive terms, and (e) allowing for a 5-s wait period for a response to occur. The components of EID give parents and teachers guidelines on how to deliver instructions properly. Increases in compliance have been found with the use of EID alone (Bellipanni, 2003; Benoit et al., 2001; Ford et al., 2001; Mandal et al., 2000; Roberts, 2003); additionally, increases have been found when EID is combined with TI (Bellipanni; Benoit et al.; Roberts), with CP (Bellipanni, 2003, 2005; Roberts, 2003, 2005), and with TI and TO (Ford et al.).

Eye Contact. Hamlet, Axelrod, and Kuerschner (1984) studied the use of eye contact on compliance with 2 elementary school children. During baseline, the average levels of compliance were 30% and 20% for the 2 participants. During the intervention phase in which the teacher solicited eye contact before issuing instructions, post noncompliance to the first request, the average levels of compliance increased 40% for both participants. The authors demonstrated the effectiveness of obtaining eye contact before giving instructions to children.

Faciane (2001) and Everett et al. (2005) conducted a partial component analysis and studied the effects of solicited eye contact on compliance. Faciane did not find increases in compliance with or without eye contact, whereas Everett et al. did find greater compliance with children who had demanded eye contact versus children who did not have demanded eye contact. Faciane’s results may be due to the use of the same commands during baseline and treatment. Specifically, the same 10 commands were used.
in baseline and treatment to maintain the same frequencies of EID components. However, the commands did not contain all EID components.

*Latency.* Two different types of latency are discussed in the literature. The first is the amount of time it takes for the child to initiate compliance once the command is given (initiation compliance). Outcomes of previous research suggest that anywhere from 5 to 30 s is the optimal amount of time to allow for compliance (Schutte & Hopkins, 1970; Shriver & Allen, 1997; Stiffman, 1982; Wruble, Sheeber, Sorensen, Boggs, & Eyberg, 1991). Shriver and Allen suggest that a latency period of 5 s may be too conservative and recommend a more lenient period of between 10 and 14 s for initiation. However, Shriver and Allen simply measured the amount of time it took children to initiate compliance on their own. They did not investigate how much time one should allow for initiation before administration of a consequence. Marlow et al. (1997) studied the use of TI and TO in a classroom with children with speech and language disorders and used a latency period of 5 – 15 s after issuing of a command. However, in a study of TI and TO for inappropriate behaviors with children with developmental disabilities, Olmi et al. (1997) used a latency period of 5 s before TO was implemented.

In an early study, Schutte and Hopkins (1970) used 15 s as the latency period for compliance with children who were 4.8 to 6 years of age. However, Stiffman (1982) found the optimal latency period in which to allow a child to initiate compliance and complete compliance, depending on the task, was an average of 19.6 s and 30.01 s, respectively. Wruble et al. (1991) examined latency periods with mothers and their children who were between the ages of 3 and 5 years. The researchers found that a period of 5 s was a sufficient initiation latency period for children. Note that latency also
depends on preferences of the parent/teacher and the content of the behavior. That is, a shorter latency period would typically be desired to stop or prevent a child from engaging in a dangerous behavior versus “putting away a toy.”

The second type of latency discussed in the literature is the amount of time allowed to complete compliance with an instruction before a consequence is administered for noncompliance (completion compliance). Roberts (2003) noted a difference in initiation compliance and completion compliance. Initiation compliance levels were higher than completion compliance levels throughout phases, meaning that children may initiate (i.e., begin) compliance but not always complete the instruction they were given. The difference in compliance levels may indicate that a certain amount of time may need to be allowed for the response to be initiated and for the response to be completed. Given the variety of results, both types of latency periods warrant further research in order to determine an ideal amount of time to allow for compliance and when to administer TO. Also, as noted, the context in which a behavior occurs and individual preferences of parents and teachers may influence allowed latencies as well.

Proximity. Another component of EID that has been studied is proximity of the parent/teacher to the child when a command is given. The proximity of the teacher to the student has been suggested to have a positive impact on behaviors and academic performance (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Werts, Zigmond, & Leeper, 2001). Some authors have suggested the optimal proximity to be within 3 to 5 feet of the student (Etscheidt et al., 1984; Van Houten, Nau, MacKenzie-Keating, Sameoto, and Colavecchia, 1982; Werts et al., 2001). In an early study of proximity involving mothers and their preschool children, Toepfer, Reuter, and Maurer (1972)
defined maternal proximity as being within an arm’s length of the child. Toepfer et al. found that when the mothers were in close proximity to their children, compliance increased.

Etscheidt et al. (1984) suggested that proximity control, being in close proximity to control a child’s behavior, works by providing “an external model of control that strengthens the student’s own ability to control his or her behavior” (p. 35); therefore, teachers should use proximity as a management plan for students who struggle to control their behaviors. Being in close proximity to a student will generally keep them on-task and will improve the level of control the teacher has over the classroom (Minner & Prater, 1989). Gunter, Shores, Jack, Rasmussen, and Flowers (1995) stated that the teacher should move about the classroom to effectively control student disruptions by being in closer proximity to all students during class time. Minner and Prater stated that children see a teacher’s presence as a cue to attend to directions, complete assignments, or stop an inappropriate behavior. Another possibility is that the teacher’s proximity may allow them to deliver praise or other reinforcement more quickly.

Van Houten et al. (1982) studied the use of reprimands with a 9-year-old boy who exhibited disruptive behaviors in the classroom. The authors found that reprimands delivered from 1-m away were more effective than those delivered from 7-m away. These results indicated that close proximity can be an influential variable in the effectiveness of reprimands.

Werts et al. (2001) were interested in whether the academic engagement of students with a disability was affected by the proximity of paraprofessionals. The 3 students included in the study were diagnosed with Asperger’s Disorder, Spina Bifida,
and Autism. The study occurred in three different school districts with a kindergarten, first grade, and second grade classroom. In addition to the general education students, each room consisted of a child with a disability, a general education teacher, and a paraprofessional. An observer coded the interactions between the paraprofessional and the student. Two distances of proximity were used by the paraprofessional, within 2 feet and within 5 feet of the student. The academic engagement of all 3 students was higher when the paraprofessional was in closer proximity (i.e., 2 feet).

Griffin (2005) investigated the effects on compliance of different proximal distances of teachers from a target student. Participants were 3 students in fourth and fifth grades who displayed initial compliance levels below 40%. Each student received EID without proximity, then EID with proximity, and finally EID with proximity and CP. The results indicated that compliance increased during EID without proximity, and no additional increases were observed with the addition of proximity. When CP was added, increases in compliance were noted for all three participants. The results suggested that proximity may not be necessary for increases in compliance if all other components of EID are present. However, caution should be exercised when interpreting the results as proximity was used inconsistently by two teachers. Additionally, a limitation of the study was the lack of specific instructions for teachers not to be in proximity to the student during EID without proximity. The teachers were included in the study if their proximity was low during baseline, yet during EID without proximity, they were not explicitly instructed to be at a specific distance when giving commands.

**Type of Command.** The type of command delivered is another antecedent component of EID. Alpha commands are individual, succinct commands allowing the
child ample time to respond, whereas beta commands are vague commands, questions, or chain commands issued one after another that do not give the child ample opportunity to respond (McMahon & Forehand, 2003). Williams and Forehand (1984) and Houlihan et al. (1994) explained that beta commands given by parents and teachers can cause negative interactions and noncompliance because the commands are vague or rapidly repetitive and do not offer the child a clear opportunity to respond.

Williams and Forehand (1984) conducted a study to determine the effects of alpha and beta commands. They studied 56 mother-child pairs who had reported problems with noncompliance and other oppositional behavior problems in the home. The authors hypothesized that beta commands would best predict noncompliance, whereas alpha commands would best predict compliance. The results indicated that maternal antecedents, such as alpha and beta commands, were accurate predictors of compliance and noncompliance, respectively.

Other types of commands that have been studied include direct and indirect commands or requests. Direct commands are those that are clear and describe the exact type of action that is required, whereas, indirect commands do not explicitly state the desired course of action to be taken (Elrod, 1983; Elrod, 1986). Elrod (1986) conducted a study in which 35 girls and 43 boys between 39 and 77 months were divided into three groups. Each group was told a story in a different manner. The first group was told a very detailed story with many pictures. The second group was told a detailed story with no pictures. The third group was told a very short version of the story with pictures. In the story, the mother was giving her child either direct commands, “Please don’t eat the cookies,” or indirect commands, “Those cookies are for our guests” (p. 65). The children
were asked comprehensive questions such as, "Why did she say that?" (p. 65) about the reasoning of the questions and what they thought the child in the story would do. For the older children (i.e., older than 57 months) the type of request made little difference. They were able to understand indirect and direct commands. However, the children 57 months of age or younger reported a better understanding of the direct commands in the story than the indirect commands. In other words, a significant age interaction was present, with children below the age of 57 months having fewer correct responses to indirect requests than direct requests. When giving commands or instructions to young children, they are more likely to have a clearer understanding of direct commands rather than indirect commands. One limitation of this study is that the children did not have to perform any type of action. They were simply asked about their understanding of the command.

Directives, another type of command, are given in the form of a statement rather than a question. Ducharme and Popynick (1993) and Neef, Shafer, Egel, Cataldo, and Parrish (1983) suggest that commands should be given as statements to increase the likelihood for compliance. Everett, Olmi, Edwards, and Tingstrom (2005) studied the use of direct commands versus questions presented to children by their caregivers in a clinic setting. An additional component was demanded eye contact. There were 4 mother-child dyads with 2 mothers giving commands in the form of a statement and 2 mothers giving commands in the form of a question. Throughout each phase, parents were responsible for delivering commands of their choice; however, they were instructed to deliver the commands in close proximity, with descriptive wording, and allow for a 5-s latency period for the response to occur. During baseline, compliance for each participant ranged
from 28% to 34%. Compliance increased from 32% and 33% to 43% and 48% for the participants receiving commands in the form of a statement. When eye contact and CP were added, compliance increased again to 65% and 60%, followed by increases to 85% and 68%, respectively. For the 2 participants receiving commands in the form of a question, compliance increased from baseline levels of 34% and 28% for each respective student to 51% for both participants. Additional increases in compliance, to 63% and 66%, were noted when eye contact was added as well as increases to 73% and 81% when CP was added. Everett et al. found an increase in compliance using positive procedures only. Additionally, no differences were found in compliance to direct commands versus a question format; however, there was not a direct comparison of each type of command for each child.

Shatz (1977) investigated children’s ability to understand and respond to the intended, rather than the literal meaning of an adult’s request. The participants were 3 mother-child dyads, with all the children within the age range of 2 years, 0 months and 2 years, 4 months. Mothers were told to interact with their child in their normal manner without any instructions on what to say or how to say it. The mothers’ commands were coded as either a statement or a question. Additionally, the child’s compliance to that command was coded. The results showed that 52% of the commands given as statements yielded compliance, whereas, 53% of commands given as questions yielded compliance. These results, however, still leave questions unanswered. The mothers were not given any instructions on the specificity of their commands. In some cases the commands were very vague. Also, mothers sometimes gave nonverbal cues, such as pointing, to initiate compliance.
Roberts, McMahon, Forehand, and Humphreys (1978) examined the effects of specific, unitary commands on child noncompliance. Parents were trained to use alpha commands in an attempt to increase their child’s compliance. There were 27 mother-child dyads, with all children having less than 60% compliance. Mothers were not given instructions on specific commands to give and were allowed to interact with their children as they would normally. The results indicated that mothers taught to give alpha commands as an antecedent to compliance obtained increases in compliance from a pre-training level of 35% to a post-training level of 64%.

Contingent Praise

Contingent praise is any verbal praise, physical praise/gesture (e.g., thumbs up), or physical touch given to a child after they have complied with a command or request (Roberts, 2003). CP is delivered solely contingent upon the child’s compliance. Examples of verbal CP are, “Thank you for picking up your toys,” or “I love the way you are doing your work like I asked.” Examples of physical CP are hugs or small pats on the back, head, or shoulder. Research has shown that CP is an effective way to increase compliance in children (Cataldo, Ward, Russo, Riordan, & Bennett, 1986; Schutte & Hopkins, 1970; Wahler & Meginnis, 1997).

Schutte and Hopkins (1970) examined the effects of teacher attention contingent upon compliance with instructions with 5 kindergarten students. The researchers found that the children in the kindergarten classroom were more likely to follow the teacher’s instructions when the teacher provided attention to the students at appropriate times.

Cataldo et al. (1986) examined the use of contingent and noncontingent reinforcement on noncompliance and problem behaviors with 4 children. Mean levels of
compliance during baseline ranged from 16% to 45% for the 4 children. When noncontingent reinforcement (i.e., reinforcement that was not contingent on compliance to a command) was added, levels of compliance remained at similar levels of 18% to 45%. However, when contingent reinforcement was added, compliance increased for all 4 children to approximately 68% to 99%. With regard to disruptive behaviors, similar results to those found with compliance were seen for the noncontingent reinforcement phase in that there were few changes from baseline. During contingent reinforcement, occurrences of disruptive behavior decreased to levels near zero. These results show that if reinforcement is made contingent upon compliance, higher levels of compliance and fewer disruptive behaviors can be obtained.

Bellipanni (2003) and Roberts (2003) conducted studies using CP, as well as TI and EID. Both Bellipanni and Roberts found that adding CP to EID and TI can increase compliance from the levels seen with just EID and TI alone.

Empirical Investigations of the CTC Model

The CTC Model has been empirically evaluated and has been shown to be effective in increasing compliance in a variety of children with and without disabilities, implemented by parents, teachers, or clinicians, and in a variety of settings, such as the home, school, or clinic (Bellipanni, 2003, 2005; Benoit et al., 2001; Everett, Olmi, Edwards, and Tingstrom, 2005; Ford et al., 2001; Mandal, 2001; Mandal et al., 2000; Marlow, 1996; Marlow et al., 1997; Olmi et al., 1997; Roberts, 2003, 2005). Procedures that use TI and TO have resulted in decreases in behavioral disruptions and increases in compliance (Bellipanni, 2003; Benoit, 2001; Ford et al., 2001; Mandal et al., 2000; Mandal, 2001; Marlow, 1996; Marlow et al., 1997; Olmi et al., 1997; Roberts, 2003).
Marlow et al. (1997) studied the effects of TI alone as well as the effects of the combination of TI and TO for noncompliance in children with speech/language disorders. Compliance increased for each student in the TI phase along with additional increases during the TI/TO combined phase. The study illustrated that TI alone can increase compliance in children with speech/language disorders, and further increases in compliance can be observed with the addition of TO to TI.

Although published prior to Marlow et al. (1997), the following study by Marlow (Marlow, 1996) was actually conducted a year following the 1997 study. Marlow examined the extent to which a combined phase of TI and TO would be more effective in increasing compliance if preceded by either a TI phase or a TO phase. Increases in compliance above baseline were noted with TO alone as well as the addition of TI and TO, respectively. The study illustrates the effectiveness of TI and TO, separately and in combination, in increasing compliance. Although TO alone was shown to be effective in increasing compliance, the teachers using TO only during the first treatment phase reported a more negative atmosphere in the classroom. Anecdotally, the teachers’ “attitudes” were reported to be less positive than the teachers using TI only, and reinforcement occurred less often (3 times per session) in the classrooms in which TO only was being used than in the classroom in which TI only was being used (16 to 30 times per session). It is important to note that appropriate practices suggest the use of positive procedures over negative, more coercive procedures when both are equally effective. The teacher or experimenter has an ethical responsibility to provide a positive atmosphere for children, especially when that positive atmosphere is a contributing factor.
to increased levels of compliance. For further review of TI and TO, the reader is directed to Marlow (1996) and Marlow et al. (1997).

Mandal et al. (2000) studied the use of EID and TI only in a clinic setting with 3 participants referred to a local school psychology clinic by their caregivers (e.g., mother or grandmother) for problems with noncompliance. There were two phases of treatment; two of the children first received EID, then EID combined with TI. The other two participants first received TI, then TI combined with EID. The authors counterbalanced the order of the phases to assess for order effects of having either TI or EID as the first phase, as well as to assess the effects of TI and EID alone. Compliance increased in the EID only phase from 40% to 79% for one participant, and from 21% to 70% for the other participant. For these same two participants, compliance levels increased in the combined phase to 88% and 85%, respectively. In the TI only phase, compliance levels increased from 17% to 75% for one participant and from 45% to 85% for the other participant. The mother of one of the participants withdrew her child from the study because of her satisfaction with the improvement in her child’s compliance. During the combined phase, the remaining participant had compliance of 85%. This study demonstrated that the use of positive procedures only, such as EID and TI, can aid in increasing compliance with parental instructions to acceptable levels without having to use punishment procedures (e.g., TO).

Mandal (2001) studied the use of TI, CP, and EID on the compliance of four children between the ages of 2 and 5 years. A single component, TI, was used initially. The second phase consisted of TI and CP, while the third phase included EID, TI, and CP. A multiple baseline design across participants was used for 3 participants, and a
within-series phase change design was used for the other participant. The study was conducted in a clinic setting with each appointment consisting of two 10-min sessions.

The two dependent measures of this study were initiation compliance and completion compliance. Initiation compliance was defined as the child taking action to comply with an instruction within 5 s of instruction delivery. Completion compliance was defined as the completion of the task within 20 s of instruction delivery. Three of the four caregivers were trained on each component individually as implemented in the study. The fourth caregiver was trained in every component at the same time due to her traveling distance to reach the clinic. Therefore, this participant was assigned to a within-series phase change design with a withdrawal component, and four sessions were conducted at each meeting.

During baseline, the levels of compliance for all 4 participants were 27%, 38%, 35%, and 31%, respectively. For initiation compliance, levels of compliance for participants, 1, 2 and 3 increased with the use of TI to 50%, 71%, and 50%, respectively. During the next phase, TI/CP, levels of compliance were 68%, 75%, and 35%, respectively. The last phase, TI/CP/EID, resulted in compliance levels of 93%, 75%, and 50%. Compliance levels for participant 4 increased during TI/CP/EID from 31% (during baseline) to 91%. During the withdrawal phase, compliance decreased to 35%, and increased to 56% with the reintroduction of the intervention components. The results for completion compliance were similar to those of the initiation compliance. The study shows the effectiveness of the compliance training package when beginning with one component and adding successive components throughout training.
Benoit et al. (2001) studied the use of EID and TI in a clinic setting as well as the generalization of these procedures to the home setting. Parents were first taught the components of EID and later instructed in TI procedures. There were three participants, each with a different diagnosis of either Oppositional Defiant Disorder, Down Syndrome, or Gifted. The criterion for participation was compliance with less than 40% of commands. Training occurred in a clinic setting for the families by using a room with a one-way mirror and a bug-in-the-ear device. The first phase consisted of EID only in which only the components of EID were used. Following the EID phase was the combined phase of EID and TI, in which there was the addition of approximately four occurrences of TI to the EID components during a 10-min session. Observations were conducted in the home following each phase. Child compliance increased in both the clinic and home settings from approximately 30% during baseline to 70-80% during the treatment phases. This study supported previous findings (Mandal et al., 2000; Mandal 2001) that increases in compliance can be found with positive procedures alone. Also, the skills taught and mastered in the clinic can be generalized to the home setting and produce similar increases in compliance at home.

In another study, Ford et al. (2001) studied compliance training components with 4 elementary aged school children referred to a school psychology clinic by their teachers for noncompliance. The teachers were trained to implement each phase sequentially in the intervention. Baseline percentages of compliance were between 36% and 39%. During the EID phase, percentages of compliance increased to between 57% and 83%. When TI was added to EID in the next phase, additional increases were seen in compliance to between 74% and 100%. During the last phase, EID/TI/TO, further
increases to 98% and 100% were observed for students 1 through 3. Follow-up was conducted one month after the intervention concluded, and again at four months. Compliance levels at one month were consistent with levels found in the last phase of the intervention. At four months, compliance percentages had decreased 14%, 5%, and 12% for students 1, 2, and 4, respectively. Student 3 was not available at four-month follow-up because of an illness.

The Ford et al. (2001) study evaluated the sequential introduction of the compliance training package components. TO was administered only once for students 1 and 3. One student did not receive TO because he reached 100% compliance before the last phase was implemented. The other student who did not receive TO had one opportunity, but the teacher repeated the instruction and the student complied. This student, however, observed her classmate receive TO before the first session of the phase that included TO. Compliance for all of the students was approximately the same regardless of the use of TO. However, two limitations of this study were the inconsistent use of TO procedures and the high levels of compliance preceding the TO phase, which may have created ceiling effects for the results of TO.

Previous studies regarding the use of EID, TI, CP, and TO have not successfully isolated the effects of EID and TI independent of CP. Bellipanni (2003) addressed this limitation by investigating the independent effects of EID and TI, apart from CP, as well as the effects of the addition of CP to the combination of EID and TI. Four elementary students were separated into two groups. The first group initially received EID, followed by EID/TI, then EID/TI/CP. The second group first received TI, followed by TI/EID, then TI/EID/CP. Follow-up observations were conducted for all 4 participants after one
month. Compliance increased for both pairs in the first phase, and with few exceptions, remained at high levels in subsequent phases. The highest levels of compliance were observed when all three components were administered. However, the author noted that ceiling effects might have been present in that high levels of compliance were achieved prior to the final phase; therefore, the effects of the addition of CP could not be fully determined.

Roberts (2003) also investigated the independent effects of EID apart from CP, as well as the additive effects of CP to EID in a study of the CTC model in a clinic setting. The participants were four children in preschool or elementary school who all displayed difficulty with compliance. Two of the participants had no previous diagnosis of any kind; one participant had been diagnosed with Down syndrome; and the fourth participant had been previously diagnosed with a language delay. The study was conducted in a clinic setting with the parent or primary caregiver. The participants were separated into two pairs. The sequence of compliance training components for the first pair was EID, EID/CP and EID/CP/TI. The sequence for the second pair was EID, EID/TI and EID/TI/CP. Increases in compliance were seen for all participants during the EID phase, with additional increases across subsequent phases except during follow-up. These results not only add to the current research showing the benefits of EID and TI, but also show the additional benefits of using CP.

Bellipanni (2005) also investigated the independent effects of CP on compliance as well as the effects of adding TI, EID, and TO if necessary. The participants were four children enrolled in preschool at an early intervention program for communication and developmental disorders. Each participant displayed less than 40% compliance to teacher
presented instructions. The sequence of compliance training for all participants was CP, CP/TI/EID, CP/TI/EID/TO, and follow-up phases. TO was only added in the last phase if the participant’s compliance was less than 90%. All participants had increases in compliance during the CP phase, with additional increases for each subsequent phase, except during the follow-up phase. These results show the effectiveness of CP alone as well as the additive effects of TI, EID, and TO in an early intervention setting with participants with communication and/or developmental disorders.

Roberts (2005) investigated the initial effects of CP with the additional effects of TI, EID, and TO. She also investigated the initial effects of TI with the additional effects of CP, EID, and TO. The participants were four children who displayed compliance levels of less than 40%. The participants were separated into 2 groups with the first pair receiving CP, CP/TI, CP/TI/EID, and CP/TI/EID/TO. The second pair received TI, TI/CP, TI/CP/EID, and TI/CP/EID/TO. All participants had increases in compliance across phases. These results show the initial effectiveness of CP or TI with the additive effects of the other components of the CTC model.

Although the current study does not utilize TO procedures, an investigation by Everett, Olmi, Edwards, Tingstrom, Sterling-Turner, et al. (in press) described the effectiveness of TO without the use of additional positive procedures. Everett et al. (in press) investigated the effects of two TO procedures in reducing escape-maintained noncompliance. The participants were four children referred to the USM School Psychology Clinic for problems with noncompliance. All participants demonstrated compliance levels of less than 40% and were identified by a brief functional analysis to have an escape function for their noncompliance. The first phase consisted of TO in
response to noncompliance to a command. Once the child was released from TO a different command was delivered. The second phase consisted of time-out with escape extinction (TO-EE), in which the release from TO was followed by the same command that resulted in the child’s placement in TO. In other words, the child was not allowed to escape from the command with which they did not comply. All participants had increases in compliance during the TO phase with additional increases in the TO-EE phase. These results show that TO procedures can be effective with students who have an escape-maintained function for their noncompliance as long as the command with which the noncompliance occurred is re-presented (i.e., as long as escape extinction is used).

Summary and Conclusions

Studying different methods for increasing children’s compliance has been the focus of many research studies. Compliance training procedures have been studied in different settings (i.e., clinic, home, and school) and across a variety of populations of children with various characteristics, such as children in general education, with speech or language impairment and those diagnosed with Down syndrome and conduct disorder (Bellipanni, 2003; Benoit et al, 2001; Ducharme & Popynick, 1993; Everett et al., 2005; Ford et al., 2001; Houlihan et al., 1994; Mandal et al., 2000; Marlow et al., 1997; Neef et al., 1983; Olmi et al., 1997; Roberts, 2003; Wahler & Meginnis, 1997; Williams & Forehand, 1984). The positive procedures of compliance training (i.e., TI, EID, and CP) have been shown to be effective among these different settings and populations. In addition to increased compliance levels, a decrease in the occurrence of inappropriate behaviors has also been observed. TO has also been shown to be highly effective (Ford et al., 2001; Marlow et al., 1997; Olmi et al., 1997). However, the effectiveness of the
positive procedures demonstrates that negative procedures such as TO may not always be necessary to increase compliance to acceptable levels.

Compliance training packages, as a whole, have been effective in decreasing disruptive behaviors and increasing compliance (Bellipanni, 2003; Benoit et al., 2001; Ford et al., 2001; Mandal et al., 2000; Marlow et al., 1997; Olmi et al., 1997). When studying variables that impact student behaviors and academic performance, it is important to isolate those specific variables that impact behaviors to determine their contributions (Werts et al., 2001). EID is a combination of several different variables. The effect of the individual components of EID on childhood compliance has been the topic of considerable research (Bellipanni, 2003, 2005; Everett et al., 2005; Faciane, 2001; Roberts, 2003, 2005). Everett et al. studied the contribution of instruction type in their study; however, experimental assessment could not be conducted. Two participants received instructions in a statement format, whereas, two participants received instructions in a question format. The format of the question was not manipulated for each participant. The effect of instruction type (i.e., commands in the form of a question or statement) has not been experimentally manipulated nor fully evaluated to determine its contributions to the CTC Model. Additionally, Griffin (2005) studied the effects of different proximal distances of the teacher from the target student on compliance. However, definitive conclusions could not be determined, partially due to teachers’ inconsistent use of proximity.

Purpose of the Present Study

Although the CTC model has been shown to be effective, there are still aspects of the model, specifically antecedent manipulations, that generate additional questions. The
ideal distance to be from a child when issuing a command, the amount of time that should be allowed for compliance to be initiated, as well as the type of command that will produce the highest percentages of compliance are all areas for further research. Studies have examined the effects of instruction type on students' compliance and disruptive behaviors, yet instruction type has not been evaluated in conjunction with some of the other components of compliance training (Elrod, 1983; Elrod, 1986; Everett et al., 2005; Roberts et al., 1978; Shatz, 1977). Whether or not instructions should be given in the form of a directive or question to achieve optimal levels of compliance is currently unknown and warrants further research. The effects of instruction type may vary depending on the influence of other components of the CTC model. The effects of instruction type as a component in the CTC model have not been experimentally manipulated and merit further research.

Also, studies have examined the effects of proximity on students' academic engagement and disruptive behaviors (Etscheidt et al., 1984; Minner & Prater, 1989; Peterson et al., 1971; Van Houten et al., 1982; Werts et al., 2001), yet only one study (Griffin, 2005) has investigated proximity in conjunction with the other components of compliance training. However, the ideal distance to be from a child when issuing a command has yet to be determined.

The first purpose of the present study was to evaluate the effects of teachers' instruction type on the compliance of children, as well as the addition of CP to EID in the school setting. Specifically, the type of instruction included those given in the form of a directive and those given in the form of a question by the teacher. A second purpose of the study was to evaluate the effects of proximity (close versus distant) on the compliance
of children in the school setting when given instructions by their teacher. The following research questions were evaluated:

Research Questions

1. In the school setting, will compliance levels differ as a function of teachers’ instruction type (i.e., directives versus questions) when giving instructions or commands within the EID procedures?

2. In the school setting, will compliance levels differ as a function of proximal distance (i.e., less than 5 feet or greater than 10 feet) from the teacher to the student?

3. In the school setting, will the addition of CP by teachers increase levels of compliance above those obtained during the previous phases?
CHAPTER II

METHOD

Participants and Setting

The participants consisted of four children in first through fifth grades who had been referred to the USM School Psychology Service Center by their teachers for problems with compliance. Children with visual or hearing impairments and mobility problems were not included in the study. In order for the children to be eligible to participate, they had to show compliance levels below 40% (Ford et al., 2001; Rhode et al., 1993).

The first participant, Angela, was a 5th grade African-American female receiving special education services with the classification of Mild Mental Retardation. She was referred for problem behaviors and noncompliance in the classroom. She was in a self-contained classroom for students with behavioral and emotional problems. The second participant, Henry, was a 4th grade African-American male receiving special education services with a ruling of Specific Learning Disability in reading. He was referred for noncompliance in the classroom. The third participant, David, was a 4th grade African-American male in a general education classroom with no special education ruling. He also was referred by his teacher for disruptive classroom behaviors and noncompliance. The fourth participant, Ashley, was a 1st grade African-American female in a general education classroom with no special education ruling. She was referred by her teacher for noncompliance and disruptive behaviors.

Graduate students in a school psychology doctoral program conducted observations after the referral was made in order to determine the level of compliance of each student. Noncompliance was defined as failure to initiate compliance within five
seconds of a first time teacher-presented instruction (Ford et al., 2001). Completion of the command was not coded. Before the study began, parental and teacher consent were obtained (Appendix A).

The teacher training was conducted in the school classroom. An initial screening procedure was conducted to assess the current use of components of the CTC model, as well as to assess for compliance of less than 40%. Effective instructions should be delivered (a) with eye contact, (b) in close proximity of the child (within 5 feet), (c) as a directive, (d) in descriptive terms, and (e) allow for a 5-s wait period for a response to occur. Only teachers whose use of effective instruction delivery procedures was present in less than 50% of commands were included in the study. Specifically, teachers had use all components of EID with more than 50% of their commands to be excluded from the study. An observer also coded the instances of CP provided by the teacher. Teachers included in the study used CP for no more than 50% of the instructions (Bellipanni, 2003).

Design

The effects of the treatment were assessed using a multiple baseline across participants design to assess the effects of instruction type (i.e., directives versus questions) used by the teachers when giving instructions, and CP. The participants were randomly assigned to one of two pairs, with one pair receiving instructions in close proximity (i.e., within 5 feet) and the other pair receiving instructions from distant proximity (i.e., greater than 10 feet). Each participant in each group had a different sequence of phases. Specifically, in each group, the first participant had baseline, EID with Questions, EID with Directives, and EID with Directives/CP. The second participant
had baseline, EID with Directives, EID with Questions, and EID with Directives/CP. Baseline data were collected concurrently for each pair of participants in order to determine their initial levels of compliance for inclusion in the study. The first intervention phase for the first child in each pair was implemented when baseline data were stable or there was a decreasing trend in compliance. The first intervention phase for the other child in the pair was implemented when an increase in compliance was observed for the preceding child.

Procedure

Observation Training

Graduate students were trained in the observation procedures with written and verbal instructions. Videotaped recordings of previous sessions were used to obtain interobserver agreement (IOA). IOA was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. IOA was considered acceptable if it was at least 80% for all components (i.e., EID, CP, and child compliance). If IOA fell below 80%, the observers were retrained in the observation procedures (i.e., use of the video tape to obtain IOA again). Once IOA was established, the graduate students were allowed to conduct observations in the classrooms. Retraining was not conducted due to IOA remaining above 80% for all observers.

Screening

An initial screening procedure was conducted to assess the amount of EID and CP procedures currently used by the teacher, as well as to assess for compliance of less than 40%. Teachers were instructed to issue commands in their usual manner; however, they
were told to issue at least 10 commands during a 30-min period. One screening observation was conducted, and only teachers who delivered less than 50% of instructions effectively (all five components present) were included in the study. An observer also coded the instances of CP provided by the teacher. Teachers were included in the study if CP was used for no more than 50% of the instructions (Bellipanni, 2003). No teachers had to be eliminated from the study based on these criteria.

**Baseline**

Baseline data were collected to calculate the percentage of compliance before the intervention began. Percentage of compliance was calculated by using the same method as Ford et al. (2001), by dividing the number of instructions with which the child complied by the total number of instructions given and multiplying that number by 100%. Graduate students conducted 30-min observations in the classrooms and recorded instances of EID, CP and compliance on a coding sheet that consisted of the essential features of EID and CP (See Appendix C). The teacher was instructed to administer at least 10 commands in their usual manner within each 30-min session. If teachers did not give at least 10 commands, they were prompted to give commands by a predetermined signal (e.g., the observer holding up the number of commands the teacher needed to administer). Compliance was recorded if the child initiated compliance within 5 s of the delivery of the command/instruction. EID was calculated in the same manner as Bellipanni (2003) by dividing the number of EID components in the command by the total number of EID components and multiplying by 100%. These percentages were summed and divided by the total number of instructions given, resulting in a mean percentage of EID components used per session. Also, the percentage of the teacher's use
of each EID component was calculated for each phase by dividing the number of uses of that component by the total number of instructions given and then multiplying by 100%. CP was assessed by dividing the total number of times the teacher provided CP for child compliance by the total number of times the teacher should have provided CP for child compliance and then multiplying by 100%.

**Teacher Training**

Before the first intervention phase, teachers were trained in the components of EID used in the CTC model. Teachers were first directed to administer commands in the form of either directives or questions depending on which phase they implemented first. In the following phase they were instructed to use EID with the other form of commands, either directives or questions. Teachers for two students were instructed to be in close proximity (i.e., within 5 feet) when delivering commands to their students. Teachers for the other two students were instructed to administer commands from distant proximity (i.e., greater than 10 feet). Training for CP occurred prior to the addition of CP. The training procedure was adapted from the procedure outlined in Ford et al. (2001).

Specifically, after baseline data were collected, the experimenter trained the teachers using verbal and written instructions (See Appendices D, E, and F), guided instructions, modeling procedures, and corrective feedback throughout the entire procedure. Teachers demonstrated mastery by delivering at least 10 commands correctly before the treatment session began. If teachers' integrity for EID components as well as the use of CP fell below 80%, they were retrained in the procedures. Following the completion of the study, teachers who were trained to be in distant proximity were trained on the correct procedures for proximity. Treatment integrity was calculated throughout the procedure to
ensure that the teachers were implementing the procedures accurately. Treatment integrity was documented on the same observation form as compliance to instructions (Appendix C). As in Ford et al., mastery was accomplished when the teachers achieved competency with 90% of the items. Competency was calculated by dividing the number of items administered by the total possible number of items and multiplying the result by 100%.

**Close versus Distant Proximity**

Teachers who were directed to be in close proximity were specifically instructed to be within 5 feet of the student when delivering a command. Teachers directed to be at a distant proximity were instructed to be greater than 10 feet from the student when delivering a command. The following conditions/phases occurred for each pair of teachers and students whether they were in close or distant proximity.

**EID with Questions**

During the EID with Questions phase, teachers administered at least 10 commands in a 30-min period using the following EID components: (a) with eye contact, (b) in descriptive terms, and (c) allowing for a 5-s wait period for a response to occur. Teachers were given specific instructions to deliver their commands in the form of a question with a reminder prior to each session to give their commands in this manner. A question was defined as an interrogative rather than just a questioning inflection in the voice. Teachers were instructed to handle noncompliance as they typically would in the classroom, but they were instructed to withhold CP during the phases in which CP was not included.
EID with Directives

During the EID with Directives phase, teachers administered at least 10 commands in a 30-min period using the same EID components as instructed in the previous phase; however, they were instructed to deliver their commands in the form of a directive. Teachers were instructed to handle noncompliance as they typically would in the classroom, but they were instructed to withhold CP during the phases in which CP was not included.

EID and CP

During the final phase of the intervention, teachers were instructed to use all components of EID, delivering commands in the form of a directive. However, previous instructions regarding proximity remained consistent in this phase. Teachers were also instructed to deliver CP for compliance in the form of positive verbal praise and/or physical contact when the child complied with a teacher’s command.

IOA and Treatment Integrity

IOA and treatment integrity were assessed using the same method used in Ford et al. (2001). Specifically, the agreements of the observers on the occurrences of compliance and noncompliance were divided by the number of agreements plus disagreements and multiplied by 100%. Agreements were defined as intervals in which both observers recorded the same number of occurrences of compliance and noncompliance as well as EID components. Disagreements were defined as intervals in which the observers recorded different frequencies of compliance as well as EID components. IOA was evaluated for approximately 35% of the sessions. Across all phases and sessions, mean interobserver agreement for each participant was 96% (range
Treatment integrity was evaluated for every observation throughout the study. The requirement for treatment integrity was the same as used in Bellipanni (2003) and Roberts (2003); that is, each component of EID and the percentage of occurrences of CP were required to be used at least 80% of the time to be considered acceptable. If teachers' integrity fell below 80%, they were retrained in the procedures.

**Treatment Acceptability**

Treatment acceptability is the degree of acceptance of an intervention. Teachers were asked to complete an adapted version of the Intervention Rating Profile (IRP-15) after each intervention phase to assess their acceptability of the treatment used during the study (See Appendix G). The description of EID reflected the changes in each intervention phase. Appendix G is an example of the scale used for the teachers instructed to be in close proximity after the EID with Directives phase. The IRP-15 was adapted to ask specific questions about the intervention with regard to issues of noncompliance. The IRP-15 (Martens, Witt, Elliot, & Darveaux, 1985) uses a 6-point Likert scale that ranges from 1 (strongly disagree) to 6 (strongly agree). The IRP-15 is a reliable, one-factor, 15-item questionnaire with scores ranging from 15 to 90; higher scores denote greater acceptability. The coefficient alpha for the IRP-15 is 0.98. Scores above 52.5 are considered to indicate that an intervention is acceptable (Von Brock & Elliott, 1987).
Data Analysis

Percentage compliance to the teacher's initial instructions was the dependent measure that was used to determine treatment effects. Data were graphed and visually analyzed to assess for the effects of instruction type across the first two intervention phases, and CP in the last intervention phase. Also, the data were inspected across each pair of children to evaluate the relative effects of proximity on levels of compliance. Additionally, the levels of compliance during the implementation of the CTC model were compared to baseline levels of compliance to assess for effects of the entire package.
CHAPTER III

RESULTS

Figure 1 illustrates compliance percentages for the 2 participants (Angela and Henry) whose teachers were in close proximity across phases. During baseline, the mean compliance for participants was 36% and 39% for Angela and Henry, respectively, with little variability of data for both. For Angela, the following phase was EID with Directives. During this phase, Angela’s mean compliance increased to 75% compliance with continuing stability of data. In the following phase, EID with Questions, Angela’s mean compliance decreased to 59% and the variability. In the final phase, EID with Directives and CP, Angela’s compliance increased to 93% with less variability than the previous phase and only one point overlapping with previous phase. For Henry, the second phase was EID with Questions. During this phase, Henry’s mean compliance increased to 76% with a range of 91% to 70% and no overlapping points. The following phase was EID with Directives, in which Henry’s mean compliance increased again to 81% with a range of 77% to 90%. In the final phase of EID with Directives and CP, Henry’s compliance increased to 92% with a range of 85% to 100%.

Figure 2 illustrates compliance percentages for the 2 participants (David and Ashley) whose teachers were in distant proximity across all phases. During baseline, the mean compliance for participants was 24% for both David and Ashley. David’s compliance was stable while Ashley’s compliance was more variable with a range of 17% to 36%. For David, the following phase was EID with Directives. During this phase, David’s mean compliance increased to 50% compliance; however the data are quite variable with a range of 30% to 70%. In the following phase, EID with Questions,
Figure 1. Percent compliance for students whose teachers were in close proximity across phases.
Figure 2. Percent compliance for students whose teachers were in distant proximity across phases.
David's mean compliance decreased to 43% with a decreasing trend and a range of 37% to 50%. In the final phase, EID with Directives and CP, David's mean compliance increased to 80% with less variability and no overlapping data. For Ashley, the second phase was EID with Questions. During this phase, Ashley's mean compliance increased to 53%; however, variability increased with a range of 20% to 75%. The following phase was EID with Directives, in which Ashley's compliance increased slightly to 57%. All data points were overlapping but variability in this phase decreased with a range of 50% to 70%. In the final phase of EID with Directives and CP, Ashley's mean compliance increased to 85% with a range of 64% to 100% and only one data point overlapping.

**Treatment Integrity**

Table 1 shows the mean percentage of treatment integrity for each teacher across all phases. During baseline, the use of "look at me" for eye contact was very low, ranging between 2% to 7% for the teachers. The use of close proximity during baseline ranged from 41% to 70%. The use of the 5-s latency and descriptives during baseline were slightly higher with a range of 79% to 89% and 78% to 90%, respectively. The use of directives during baseline was higher and more stable than other EID components, ranging between 86% and 98%. The use of contingent praise during baseline was very low, ranging from 0% to 7%.

For the teachers who were instructed to be in distant proximity throughout the phases, close proximity remained below 50% throughout each intervention phase. Close proximity was expected to be low for David and Ashley's teachers who were to give instructions from a distant proximity (i.e., greater than 10 feet). For the teachers instructed to be in close proximity (within 5 feet) to the student, close proximity
Table 1

Mean Percentage of Components Used Across Phases

<table>
<thead>
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<th>Phase</th>
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<tr>
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<td>Contingent Praise</td>
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Table 1 (cont)

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<td>Henry’s Teacher</td>
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Table 1 (cont)

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<th>EID with Questions</th>
<th>EID with Directives + CP</th>
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<tr>
<td>Question</td>
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<td>--</td>
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<td>Baseline</td>
<td>EID with Questions</td>
<td>EID with Directives</td>
<td>EID/CP Directives + CP</td>
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<td>5 s latency</td>
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increased to a range of 82% to 97%. All teachers increased their use of eye contact throughout the intervention phases ranging from 71% to 100%. The use of descriptives and 5-s latency were at high levels throughout intervention phases staying above 90%, with the exception of David’s teacher whose mean levels of 5-s latency were 77% and 86% for the first two intervention phases, respectively. During phases in which directives were to be used, teachers’ use of directives ranged from 84% to 100%. During phases in which questions were to be used, teacher’s use of directives ranged from 44% to 66%. Use of directives was expected to be low during phases in which instructions were to be presented in a question format.

During the final phase of EID with Directives + CP, the use of EID components stayed at high levels for all teachers with the exception of close proximity for those teachers instructed to be at least 10 feet from the student as would be expected. During this final phase that included CP, the use of CP increased for all teachers from baseline; however, three teachers increased their use of CP to 36%, 37%, and 38%. Henry’s teacher increased her use of CP to 66%.

Treatment Acceptability

The IRP-15 was administered after each intervention phase. The results are presented in the order of EID with Directives, EID with Questions, and EID with Directives + CP. For Angela’s teacher, the scores after each phase were 90, 82, and 90, respectively. Angela’s teacher expressed that the intervention seemed to work well for Angela when using directives. For Henry’s teacher, the scores after each treatment phase were 90, 86, and 90, respectively. Henry’s teacher expressed that the intervention was appropriate for Henry’s noncompliance and stated that she would continue to use it with
all of her students. For David’s teacher, the scores after each phase were 88, 77, and 89, respectively. All of David’s teacher’s ratings were in the “acceptable” range. For Ashley’s teacher, the scores after each phase were 84, 81, and 88, respectively. All of Ashley’s teacher’s ratings were also in the “acceptable” range.
CHAPTER IV
DISCUSSION

Compliance training packages have been shown to be effective in reducing disruptive classroom behaviors and increasing compliance in both classroom and non-classroom settings (e.g., clinic, home) when implemented by teachers, parents, caregivers, or clinicians (Bellipanni, 2003; Benoit et al., 2001; Ford et al., 2001; Mandal et al., 2000; Marlow et al., 1997; McMahon & Forehand, 2003; Olmi et al., 1997). Additionally, studies have been conducted in an attempt to determine the separate effects of individual EID components, TI, and CP (Bellipanni, 2003; Everett et al., 2005; Faciane, 2001; Mandal et al., 2000; Roberts, 2003). The current study was conducted in an attempt to complete a partial component analysis of the EID components and to examine the additional effects of CP. Specifically, command type was directly manipulated with the purpose of extending the literature on the potential contribution of directives to EID in the CTC Model. Proximity was not directly manipulated, but it was examined to determine relative effects of proximal distance on compliance. Specifically, the design did not allow for the same pair of children to receive both distances in combination with the other manipulated components. Additionally, the current study sought to extend the literature on the additional effects of CP with EID. The following discussion is organized with respect to the specific research questions.

Research Question 1

The first question was whether or not compliance levels would differ as a function of instruction type (i.e., directives versus questions) when giving instructions or commands within the EID procedures in the school setting. In the first intervention phase
for all students, some components of EID were present (i.e., descriptive commands, eye contact, and a 3-5 s latency period for compliance), even though other components of EID may not have been present (i.e., directives and close proximity). Therefore, initial increases in compliance in the first phase were expected for all participants. The following phases alternated whether or not the command was delivered in the form of a question or directive, with two teachers in close proximity to the student and two teachers at a distant proximity.

Henry and Ashley initially received commands in the form of a question with all other EID components present (with the exception of close proximity for Ashley). Compliance increased from baseline to 76% and 53% for Henry and Ashley, respectively. In the following phase, which consisted of all EID components with commands given in the form of a directive, compliance increased slightly for Henry and Ashley, respectively, to 81% and 57%. For Angela and David, who initially had commands delivered in the form of a directive, compliance increased from baseline to 75% and 50%, respectively. However, in the following phase, when commands were delivered in the form of a question, compliance decreased to 59% and 43%, respectively. For all participants, excluding David, variability increased when commands were delivered in the form of a question with Ashley’s compliance being the most variable ranging from 20% to 75%. It is also important to note that the teacher’s integrity with the use of questions was also variable, with teachers delivering commands as both questions and directives. These results suggest that using EID with directives may contribute to greater levels of compliance than the use of EID with questions. However, any advantages for the use of directives rather than questions are slight and may also interact with proximity.
Additionally, only initiation compliance was observed therefore whether or not commands were compliance with the command was completed is unknown.

The results are commensurate with suggestions from previous researchers and behavioral parent training programs (e.g., Ducharme & Popynick, 1993; Hembree-Kigin & McNeil, 1995; McMahon & Forehand, 2003; Neef et al., 1983) that commands should be given in the form of statements to increase the likelihood for compliance. However, the results are not consistent with the findings in Everett et al. (2005) that suggest the type of command may not be important for increasing levels of compliance. However, it should be emphasized that Everett et al. did not directly manipulate the type of command delivered. Additionally, even though differences in compliance were observed with directives versus questions, those differences are not substantial. The lack of substantial differences in compliance for directives versus questions with the current participants, who range from first grade to fifth grade, may be consistent with Elrod's (1986) findings that children older than 57 months of age may have similar levels of compliance to both direct and indirect commands.

Regarding treatment integrity, the range of integrity for the use of directives ranged from 94% to 100%, whereas the integrity for the use of questions ranged from 34% to 56%. Specifically, when the teachers were instructed to use questions rather than directives, they still used directives during approximately 44% to 66% of the observations. However, it is important to note that differences in compliance when comparing questions to directives were still found. Therefore, it may be concluded that even a small change in the use of directives may affect compliance.
Research Question 2

The second question was whether or not compliance levels would differ as a function of distance (i.e., less than 5 feet or greater than 10 feet) from the teacher to the student. For the 2 students, Angela and Henry, whose teacher was in close proximity, compliance levels across all phases were 59% and 76% for EID with questions, 75% and 81% for EID with Directives, and 93% and 92% with the addition of CP for Angela and Henry, respectively. For the other 2 students, David and Ashley, compliance levels for EID with questions were 43% and 53%, EID with Directives was 50% and 57%, and with the addition of CP compliance was 80% and 85%, respectively.

The compliance levels for students whose teachers were in close proximity were higher in every phase than compliance levels for students whose teachers were at distant proximity. Additionally, compliance for those students whose teachers were in close proximity had less variability than students whose teachers were instructed to be at a distant proximity. It is important to note that the range of integrity for teachers instructed to be greater than 10 feet during intervention phases was 14% to 49%, indicating that the teachers were frequently closer than 10 feet from the student. However, the integrity for teachers instructed to be within 5 feet ranged from 82% to 97%, indicating that their integrity for remaining in close proximity was high. This difference in integrity might suggest that in a classroom setting, it may be more difficult for teachers to remain greater than 10 feet when issuing commands. Additionally, students frequently approach the teacher and, therefore, a resulting command must be delivered in close proximity.

Although the current results may indicate that compliance may increase when teachers are in closer proximity, the current design did not allow for a direct comparison...
between the two distances. Specifically, Angela’s and Henry’s teachers were instructed to be within 5 feet when delivering commands throughout all phases, whereas David’s and Ashley’s teachers were instructed to be greater than 10 feet when delivering their commands throughout all phases. The design did not allow for the same pair of children to receive both distances in combination with the other manipulated components (i.e., instruction type and CP), so conclusions as to which proximal distance may be more effective cannot be directly assessed.

The results are generally consistent with suggestions that teachers should be in close proximity to students when delivering commands or in order to control student disruptions (Etscheidt et al., 1984; Gunter et al., 1995). However, Griffin (2005) found that teacher proximity may not be necessary for increases in compliance to occur if other EID components are present. It is currently no known what function proximity serves. It has been suggested that the teacher serves as a cue for students attend to directions or engage in appropriate behavior (Minner & Prater, 1989). However, another possibility is the availability of reinforcement when the teacher is in close proximity.

Research Question 3

The last question was whether the addition of CP to EID would increase compliance above levels obtained with EID alone. The data suggest that with the addition of CP in the final phase, compliance increased for Angela, Henry, David, and Ashley by 24%, 11%, 37%, and 28% over levels in the preceding phase, ultimately to 93%, 92%, 80% and 85%, respectively. Henry’s teacher increased her use of CP from a range of 7% to 12% in the preceding phases to 66% in the final phase. Angela’s teacher, David’s teacher, and Ashley’s teacher increased their use of CP in the final phase to 38%, 36%,
and 37%, respectively. The results suggest that EID can be successful in increasing levels of compliance; however, the decreasing and stable trends in the previous phases may indicate that CP may be necessary to achieve further increases in compliance beyond those obtained by EID alone. Additionally, the results suggest that although treatment integrity of the use of CP was not above 80%, substantial increases in the use of CP from baseline were observed. These increases result in CP being delivered at a variable ratio schedule, which may be enough to result in significant behavior change.

Previous studies have found that CP alone can be effective in increasing compliance (Bellipanni, 2005; Roberts, 2005). Additionally, CP has been found to have an additive effect of increasing compliance when combined with other EID components (Bellipanni, 2003; Everett et al., 2005; Griffin, 2005; Mandal, 2001; Roberts, 2003). The current results are consistent with other findings that CP may be a necessary addition to EID components to increase compliance to satisfactory levels of 80% or higher. Conversely, some studies have reached acceptable levels of compliance without the use of CP (Ford et al., 2001; Mandal et al., 2000; Marlow, 1997). However, Ford et al. and Marlow et al. utilized time-out rather than using positive procedures only.

Treatment Integrity

Treatment integrity data were collected for each teacher across each phase and for each component. During baseline, zero percent of instructions by all teachers were given with all EID components present, and the use of CP was less than 50%. After training for each component for the first phase, all teachers failed to meet criteria for EID components and, therefore, had to be retrained throughout the study. Teachers most often failed to meet criteria due to the failure to give commands in the form of a question as
well as their failure to implement CP. Additionally, teachers instructed to be at a distant
proximity frequently delivered commands from a proximity of less than 10 feet. The
teachers were often approached by the student, requiring a command be delivered from
close proximity. Following each session of low treatment integrity (i.e., less than 80% of
delivered instructions) corrective feedback and re-training were conducted for the
respective teacher before the following session took place. Methods to increase treatment
integrity have been a focus of research in order to aid in the determination of the
effectiveness of interventions (Sterling-Turner, Watson, & Moore, 2002). Possible ways
that treatment integrity could have been increased include performance contingencies, the
use of goal setting, as well as graphic displays of the teacher's performance (Noell et al.,
2005).

Treatment Acceptability

All four teachers' scores for treatment acceptability were 77 or greater. Scores
greater than 52.5 indicate acceptability of the intervention (Von Brock & Elliott, 1987).
Henry's teacher also reported that she felt that it was a very appropriate intervention for
Henry's problem behaviors and that she would continue to use it in the future. The
teachers instructed to be greater than 10 feet when giving commands indicated that they
would not always be able to stay that far away; however, they did report that they thought
proximity was an interesting variable to study. They acknowledged that proximity to their
students was not something they considered when delivering commands and would be
interested in seeing the results. Additionally, the teachers reported that it was difficult to
purposefully deliver commands in the form of a question; however, they were all willing
to make the effort in order to see if it made a difference. Previous studies of the CTC
model have found similar acceptability scores indicating that various components of the CTC model have consistently been found to be acceptable (Bellipanni, 2003; Everett et al., 2005; Ford et al., 2001; Griffin, 2005; Mandal, 2001; Marlow, 1997; Roberts, 2003).

Limitations and Directions for Future Research

One limitation of the current study is the lack of experimental manipulation of proximity. The lack of direct manipulation limits the conclusions that can be drawn from the effects of proximity. Additionally, the teachers who were instructed to remain at least 10 feet from the student when delivering commands (distant proximity) did not have high integrity. Specifically, they were less than 10 feet for more than 80% of their commands throughout most of the observations. This lack of treatment integrity for distant proximity certainly limits any conclusions regarding this component. Although the teachers who were instructed to be within 5 feet when giving commands (close proximity) had high integrity, the full effects of proximity cannot be determined. Regarding research with proximity, a direction for future research might include not only specific directions about the use of proximity, such as those given in the current study, but also direct manipulation of proximity. Previous research in which direct manipulation of proximity was conducted did not include specific directions to the teachers to be in either close or distant proximity (Griffin, 2005).

Another limitation is the lack of integrity regarding the use of questions. The teachers had high integrity (i.e., range of 84% to 100%) when using directives. However, when instructed to use questions, the use of questions was not higher than 80%. The use of directives ranged from 44% to 66%, indicating that the teachers used directives and questions when instructed to use questions. Treatment integrity was highly variable in the
current study and may attribute to the variability of the data. It is currently unknown what level of treatment integrity is optimal to create optimal changes in behavior. Differences in compliance were found between the phases with questions and directives; however, due to the poor integrity with the use of questions, results should be interpreted with caution. Future research should focus on additional differences in compliance when questions are delivered with high integrity.

Another limitation is the generally low integrity for CP by all teachers in the final phase which was to include EID with directives and CP. Henry's teacher had the greatest integrity for CP (66%), whereas the other 3 teachers were between 36% and 38% for CP. If the use of CP is low when it is supposed to be used, it is unknown the extent to which, if at all, increases in compliance in the final phase can be attributed to CP. On the other hand, percentages of CP were considerably higher during this phase than during baseline or any other phases. It is unknown how much CP is necessary to achieve increases in compliance. Additionally, it is unknown what level of integrity is optimal for behavior change to be observed. Nonetheless, despite these questions, increases in compliance in the final phase are consistent with other studies (Bellipanni, 2003, 2005; Roberts, 2003, 2005) that have found increases in compliance with the addition of CP. Further research should be conducted to determine the amount or level of CP that should be utilized in order to obtain increases in compliance as well as the level of integrity that should be observed to result in significant changes in the dependent variable.

Additionally, further research is still needed on individual components of the compliance training package. Another component of EID that has not been investigated extensively is descriptive commands. Descriptive commands need to be studied to
determine the effectiveness of giving commands in a descriptive versus a non-descriptive manner.

The CTC model has been studied in different ways by different researchers. Other possible areas for further research include generalization and maintenance of compliance. Benoit et al. (2001) is the only investigation to date to assess generalization to another setting. However, research on generalization can be extended to include additional populations and settings, and although maintenance has been generally supported at varying follow-up intervals (e.g., 1-month and 4-month; Ford et al., 2001; Marlow et al., 1997; Olmi et al., 1997) additional assessment of long-term follow-up is necessary.

Summary

The primary purpose of the present study was to evaluate the effects of instruction type (i.e., directives versus questions) on compliance with teachers giving instructions or commands within the EID procedures in the school setting. Results suggest that the use of directives versus the use of questions appears to be somewhat more effective in increasing compliance in the classroom, although these results are tempered by difficulties with treatment integrity.

A second purpose of the study was to examine the relative effects of the proximity of the teacher to the student (i.e., within 5 feet or greater than 10 feet) when delivering commands. As a result of the current design, the conclusions regarding proximity remain less clear. However, the results do seem to suggest that greater compliance may be obtained when the teacher is in closer proximity to the student when delivering commands.
A third purpose of the study was to examine the effects of adding CP to EID. The results suggest that CP was successful in increasing compliance for all 4 participants. No teacher increased her use of CP to desirable a level; however, all teachers increased their use considerably of CP above baseline levels. However, the increases in compliance for the 2 participants whose teacher was at a distant proximity when delivering commands did not reach levels of compliance quite as high as those participants whose teachers delivered commands in close proximity.

Finally, treatment integrity issues continue to require attention. It is unknown what levels of integrity of the various CTC components are necessary to achieve desirable levels of compliance. Generally acceptable levels of compliance (approximately 80% or higher) were ultimately achieved in the present investigation for all participants. However, there remains additional research to be conducted in this area.
UNIVERSITY OF SOUTHERN MISSISSIPPI CONSENT DOCUMENT FOR RESEARCH PARTICIPANTS
   Parental Consent Form

TITLE OF STUDY: The Contributions of Instruction Type, Proximity, and Contingent Praise in a Compliance Training Model.

NAME OF PARTICIPANT: ___________________________________________

PURPOSE OF STUDY. You are being asked to allow your child to take part in a study that is researching the individual effects of a compliance training method. The components to the compliance-training package include Effective Instruction Delivery, which is a method for teachers to use in giving commands to your child and Contingent Praise, which is praise for complying with a command. These three components are a part of USM’s School Psychology Service Center’s compliance training package and have been shown to increase compliance in a variety of children.

WHO CAN PARTICIPATE? Your child needs to be having difficulty in the classroom with noncompliant behavior, and also needs to comply with less than 40% of commands presented to him/her in an initial screening session. If your child does not meet criteria for participating in this study, he/she can be referred to the USM School Psychology Service Center or a local mental health provider for services.

METHODS AND PROCEDURES. If you agree to participate in this study, and if your child is selected for the study, your child’s teacher will be required to present your child with a series of commands to establish whether or not criteria (compliance less than 40%) have been met. If your child complies with less than 40% of the commands given, your child will continue on to the second step. This step includes having the teacher use the parts of the compliance training package that were discussed above. The experimenter and a trained graduate student will observe and will write down what the teacher does and what your child does. These observations will be used to see if there is a difference in your child’s compliance based on whether or not certain parts of the package are used. The observations will continue until it is clear what effects each component has on childhood compliance. It is unknown how many sessions it will take to clearly see which, if any, part of the package is most effective.

RISKS AND DISCOMFORT. This study has very few risks for your child since only positive steps will be used. However, your child may become frustrated during these sessions because demands will be placed on him/her.

BENEFITS. The results of this procedure may be of benefit to you, and your child because the results will indicate a procedure most likely to increase compliance of your child.
CONFIDENTIALITY OF RECORDS. All information obtained during this study will be kept confidential. This will include withholding your names and other identifying information from all persons not connected with this study. This procedure is designed to protect the privacy of you and your child. All information, including videotapes, will be kept in a locked file cabinet in the School Psychology Service Center for 5 years. After 5 years, all files and videotapes will be destroyed. Your child’s name and other identifying information will be excluded from the research paper and from papers submitted to professional journals for publication.

There are circumstances in which we are obligated to release information about you and your child. Those circumstances are if your child tells us that he/she is planning to harm him/herself or someone else, if your child is abused, if we are ordered by the court to release information, or if there is a medical emergency in which the release of information is important to ensure your or another person’s safety.

VOLUNTARY PARTICIPATION. Your child’s participation in this study is entirely voluntary. You may withdraw your child from being a research participant at any time without penalty or prejudice.

PARTICIPANT’S CONSENT. I have had the purposes and procedures of this study explained to me and have had the opportunity to ask questions. My questions have been answered to my satisfaction, and I am voluntarily signing this form for my child to participate in this research study. My signature shows my willingness to allow my child to participate in this study under the conditions stated.

Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. Participation in this project is completely voluntary and subjects may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Jennifer Griffin or Dr. Daniel Tingstrom, at 266-5255. This project and this consent form have been reviewed by the Human Subjects Protection Review Committee which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Institutional Review Board Office, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406-5147, (601) 266-6820. A copy of this form will be given to the participant.

<table>
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<tr>
<th>Signature of Parent</th>
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<th>Experimenter’s Signature</th>
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APPENDIX B

UNIVERSITY OF SOUTHERN MISSISSIPPI CONSENT DOCUMENT FOR RESEARCH PARTICIPANTS
Teacher Consent Form

TITLE OF STUDY: The Contributions of Instruction Type, Proximity, and Contingent Praise in a Compliance Training Model.

NAME OF PARTICIPANT: ___________________________________________

PURPOSE OF STUDY. You are being asked to take part in a study that is researching the individual effects of a compliance training method. The components to the compliance-training package include Effective Instruction Delivery, which is a method for teachers to use in giving commands to your students and Contingent Praise, which is praise for complying with a command. These three components are a part of USM’s School Psychology Service Center’s compliance training package and have been shown to increase compliance in a variety of children.

WHO CAN PARTICIPATE? Your student needs to be having difficulty in the classroom with noncompliant behavior, and also needs to comply with less than 40% of commands presented to him/her in an initial screening session. If your student does not meet criteria for participating in this study, he/she can be referred to the USM School Psychology Service Center or a local mental health provider for services.

METHODS AND PROCEDURES. If you agree to participate in this study, and if your student is selected for the study, you will be required to present your student with a series of commands to establish whether or not criteria (compliance less than 40%) have been met. If your student complies with less than 40% of the commands given, your student will continue on to the second step. This step includes having you use the parts of the compliance training package that were discussed above. The experimenter and a trained graduate student will observe and will write down what you do and what your student does. These observations will be used to see if there is a difference in your student’s compliance based on whether or not certain parts of the package are used. The observations will continue until it is clear what effects each component has on childhood compliance. It is unknown how many sessions it will take to clearly see which, if any, part of the package is most effective.

RISKS AND DISCOMFORT. This study has very few risks for your student since only positive steps will be used. However, your student may become frustrated during these sessions because demands will be placed on him/her.

BENEFITS. The results of this procedure may be of benefit to you, and your student because the results will indicate a procedure most likely to increase compliance of your student.
CONFIDENTIALITY OF RECORDS. All information obtained during this study will be kept confidential. This will include withholding your names and other identifying information from all persons not connected with this study. This procedure is designed to protect the privacy of you and your student. All information, including videotapes, will be kept in a locked file cabinet in the School Psychology Service Center for 5 years. After 5 years, all files and videotapes will be destroyed. Your student's name and other identifying information will be excluded from the research paper and from papers submitted to professional journals for publication.

There are circumstances in which we are obligated to release information about you and your student. Those circumstances are if your student tells us that he/she is planning to harm him/herself or someone else, if your student is abused, if we are ordered by the court to release information, or if there is a medical emergency in which the release of information is important to ensure your or another person’s safety.

VOLUNTARY PARTICIPATION. Your participation in this study is entirely voluntary. You may withdraw your student from being a research participant at any time without penalty or prejudice.

PARTICIPANT'S CONSENT. I have had the purposes and procedures of this study explained to me and have had the opportunity to ask questions. My questions have been answered to my satisfaction, and I am voluntarily signing this form to participate in this research study. My signature shows my willingness to participate in this study under the conditions stated.

Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. Participation in this project is completely voluntary and subjects may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Jennifer Griffin or Dr. Daniel Tingstrom, at 266-5255. This project and this consent form have been reviewed by the Human Subjects Protection Review Committee which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Institutional Review Board Office, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406-5147, (601) 266-6820. A copy of this form will be given to the participant.

Signature of Teacher        Date

Experimenter's Signature    Date

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APPENDIX C
DATA COLLECTION SHEET

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<th>Q</th>
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Q: Command Given  E: Look at me command  Di: Directive  P: Proximity (c: close, m: middle, d: distant) 5s: Between commands  De: Descriptive  IC: Initiation compliance CP: Contingent Praise  Notes/Totals:

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APPENDIX D

Teacher Training

The teachers were presented with a copy of written instructions for each condition and allowed to read them for approximately 10 min. Next the teachers and experimenter discussed each of the procedures used in the condition for approximately 10 min. Teachers were then instructed to practice the procedures with their student for 10 min so that corrective feedback could be provided if necessary. When the teacher’s procedural integrity reached 80% or higher, data collection observations began. If procedural integrity fell below 80%, the training procedures described above were repeated until procedural integrity was 80% or higher.

Adapted from Mandal (2001)
APPENDIX E

Guidelines for Effective Instruction Delivery

- Eye contact should be established before presenting an instruction.
  - Say the child’s name, followed by “look at me” then the instruction

- The instruction should be delivered in close proximity to the child (i.e., within 5 feet) or at a distant proximity (greater than 10 feet).

- The instruction should be delivered in the form of a directive (i.e., statement) or question.

- Instructions should be presented with descriptive wording.
  - Example: Jimmy. Look at me. Please pick up the big, red, fire truck.

- After presenting the instruction, allow 5 seconds for the child to comply with the instruction.

- If the child does not comply with the instruction, handle the noncompliance as you normally would in the classroom.

Adapted from Mandal (2001)
APPENDIX F

Guidelines for Contingent Praise

Positive verbal praise and appropriate physical praise should be delivered to a child whenever he/she complies with a specific request. For example, if the teacher tells a student to, “Hand me your work,” and the child complies with the request, the teacher might tell him/her “Good job!” or “Thank you for handing in your work so fast!” It is important to note that contingent praise for compliance will only be given during sessions where the experimenter instructs the teacher to use this intervention.
APPENDIX G

INTERVENTION RATING PROFILE

The purpose of this questionnaire is to obtain information that will aid in the selection of classroom interventions. Regarding **Effective Instruction Delivery**, please circle the number which best describes your agreement or disagreement with each statement.

**Effective Instruction Delivery:** Instructions are delivered as directives (i.e., not as questions). They are delivered in close proximity with eye contact and a quiet toned voice. Instructions are delivered using descriptive wording and stated in a positive manner. A 5-second wait period is given for a response to occur following the instruction. Compliance to an instruction is followed by contingent reinforcement.

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<tr>
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<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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<tbody>
<tr>
<td>1. This is an acceptable intervention for child noncompliance to instructions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>2. Most teachers would find this intervention appropriate for behavior problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>3. This intervention has proven effective in changing the child’s problem behavior.</td>
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<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>4. I would suggest the use of this intervention to other teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tr>
<tr>
<td>5. The child's noncompliance was severe enough to warrant use of this intervention.</td>
<td>1</td>
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<tr>
<td>6. Most teachers would find this intervention suitable for dealing with noncompliance.</td>
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</tr>
<tr>
<td>7. I would be willing to continue using this intervention in my classroom.</td>
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<tr>
<td>8. This intervention did NOT result in negative side-effects for the child.</td>
<td>1</td>
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<tr>
<td>9. The intervention would be appropriate for a variety of children.</td>
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<tr>
<td>10. This intervention is consistent with those I have used in classroom settings.</td>
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<tr>
<td>11. The intervention is a fair way to handle child noncompliance.</td>
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</tr>
<tr>
<td>12. This intervention is reasonable for the child's problem behavior.</td>
<td>1</td>
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<tr>
<td>13. I liked the procedures used in this intervention.</td>
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</tr>
<tr>
<td>14. This intervention was a good way to handle a child's behavior.</td>
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<tr>
<td>15. Overall, this intervention was beneficial for the child.</td>
<td>1</td>
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</tr>
</tbody>
</table>

Martens, Witt, Elliot, and Darveaux (1985)
The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 25111501
PROJECT TITLE: The Contributions of Instruction Type, Proximity, and Contingent Praise in a Compliance Training Model
PROPOSED PROJECT DATES: 08/25/05 to 06/01/06
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Jennifer R. Griffin
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: School Psychology
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Exempt Approval
PERIOD OF APPROVAL: 12/06/05 to 12/05/06

[Signature]
Lawrence A. Hosman, Ph.D.
HSPRC Chair

[Signature]
12-12-05
Date
REFERENCES


Roberts, D. S. (2003). *An analysis of the effects of contingent praise to effective*


