A MULTICOMPONENT BEHAVIORAL INTERVENTION FOR A DIVERSE
CLASSROOM

DISSERTATION

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By

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ABSTRACT

A multicomponent behavioral intervention aimed at reducing disruptive behavior and improving some of the potential communication problems that may arise in a diverse classroom was implemented in an urban elementary school. The participants were 6 4th and 5th grade African American “gifted” students who exhibited significant amounts of disruptive behavior in their self-contained classroom. Using an ABAB reversal design, data regarding students’ behavior was gathered by both direct observation and (BASC) ratings scales completed by the teacher. When an outlier in direct observation data was ignored PND’s revealed treatment effects for 2 students. Pre and post BASC scores showed no significant differences except for one student who also showed treatment effects. Need for further research is indicated.
Dedicated to my husband, David and son, Nicolas.
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CHAPTER 1

INTRODUCTION

There is an increasing demand for urban classroom behavioral interventions that are both effective and efficient. The impetus for this demand is multifaceted and involves factors both external and internal to the school system. Movements toward inclusion and educating students in the least restrictive environments have required teachers to deal with groups of students that have diverse needs within a single classroom. Teachers need to be able to work effectively with students that possess significant learning and behavioral difficulties. Educating this diverse group of learners also often means teaching within communities that are unable to provide needed supports to students and the schools. Lack of resources and the presence of risk factors such as a high number of single parent households, poverty, substance abuse, violence, lack of prenatal care and early intervention programs, etc. impact the communities ability to support students and schools.

In these already challenging environments, behavioral difficulties are further exacerbated by factors within the school environment itself. Cultural differences between staff and students can lead to miscommunication and resulting behavior problems within the classrooms. Existing discipline policies tend to be not only ineffective but intensify and contribute to students’ patterns of challenging and disruptive behavior (Lewis &
Sugai, 1999: Schwartz, 2001). The educational system’s response of punishment or removal to undesirable behavior has proven unsuccessful. Additionally, the least experienced teachers tend to be placed in the schools with the greatest need for staff that is proficient with behavior management techniques. All of these factors contribute to rising behavior problems, which in turn has been cited as one of the leading causes of attrition among teachers (Deshler, 1996).

Statement of the Problem

As behavior problems escalate and students come to school with greater needs than ever before, schools are increasingly being challenged to do more with less. The ability of our schools to handle the challenge has direct implications for all of society, as those children with chronic behavior problems are more likely to drop out of school and be unemployed and/or in trouble with the law (Lewis & Sugai, 1999). “Addressing the problems of urban schools is one of our most important national educational issues because the highest percentage of students at risk of failure are found in these schools, and the worst social and economic conditions are also found in urban neighborhoods“ (Waxman & Huang, 1997 p. 9).

Among the myriad of challenges facing urban schools, there are a number of issues contributing to discipline and disruptive behavior that impact the performance of these schools. Not only are the teachers in these schools relatively inexperienced but also they are not adequately trained in behavior management techniques (Kher, Lacina-Gifford, & Yandell, 2000). The existing lack of behavior management training is further complicated by cultural differences. Urban schools tend to be filled with an increasingly diverse student population and an increasingly homogenous staff population (Ladson-
Billings, 2001). The background of the teacher and the students impacts behavior interventions and the perceptions of others' behavior. As the student population becomes increasingly diverse, educators must recognize how the selected behavior interventions can be influenced by the students’ cultural backgrounds and that teachers' backgrounds influence their selection of interventions (Ishii-Jordan, 2000).

A significant force outside of the school system that has generated an increased need for effective behavior management is public concern over academic achievement. In spite of efforts to reform failing schools, gaps continue to exist in the performance of urban versus middle class suburban schools. The highly politicized issue of “reform” often does not address critical issues facing failing urban schools. This results in these schools falling short on the ruler of high stakes testing. The focus on academics represents a serious oversight. Compliant, on task behaviors and the resulting orderly classrooms are necessary prerequisites to academic achievement. Inappropriate behavior, including inappropriate negative social or emotional responses to situations may interfere with both completion of academic tasks and mastery of academic content. This behavior may also interrupt the learning of others (Smith, Siegel, O’Connor, & Thomas, 1994). Failure to address how to deal with disruptive and noncompliant behaviors makes improving academic achievement impossible in some settings.

Behavior management in the classroom is critical to effective instruction. Much of the urban reform literature in education has focused exclusively on academic achievement to the neglect of classroom management and behavior issues that exist in these environments. What attention has been paid to behavior management has primarily focused on ways to deal with violent behavior in urban educational environments.
However, there is a relative dearth of available literature on behavior management techniques or interventions that have been used by teachers in urban classrooms.

Prevalence rates for children’s disruptive behavior in urban, low-income communities are reported to be almost three times national estimates (Tolan, Gorman-Smith, Huesmann & Zelli, 1997). Lippman, Burns, & McArthur (1996) found student behavior problems to be more common in urban school than in other schools and students in high poverty urban schools were more likely to require more discipline by teachers compared to their counterparts in other locations. However, the nature of the difficulties encountered in urban schools is questioned based on existing evidence for miscommunication between teachers and students as well as the existence of punitive policies that may actually serve to exacerbate problem behaviors. Ignorance of effective behavior management strategies and critical cultural differences may lead to inflated estimates of behavior problems. Discipline problems in the urban classrooms may truly represent communication problems, unreasonable expectations or lack of training on behalf of the staff.

Although there are many variables that have the potential to negatively impact children’s performance in urban settings, it is critical that educators believe students in these environments can succeed and display appropriate behavior that is conducive to learning. Teacher attitudes and beliefs affect their expectations and perceptions of efficacy, which in turn impacts the student’s performance (Warren, 2002). Warren (2002) found that the majority of teachers interviewed in their study viewed cultural differences as deficits, and they had lowered expectations and sense of efficacy in working with children from cultural backgrounds different from their own.
Lack of effective behavioral management and discipline systems combined with identified risk factors for inner city students indicates a need for a comprehensive and positive approach to school discipline. “A comprehensive approach to school discipline emphasizes (a) teaching appropriate behaviors rather than just punishing unwanted behavior, (b) matching the level of intervention resources to the level of behavioral challenge presented by students, and (c) designing and integrating multiple systems that deal with the full range of discipline challenges” (Sugai, Horner, & Gresham 2002, p 319).

**Purpose of the Study**

The purpose of this study was to determine if a multicomponent intervention would decrease disruptive and increase compliant classroom behaviors within an environment challenged by both its urban, impoverished setting and cultural differences that exist between the teacher and students. The foundation of the intervention was the Precision request program, which is believed to overcome some of the communication difficulties within diverse settings. The intervention was made comprehensive through the addition of publicly posted behavioral expectations, a token economy with a response cost, an alternating menu of daily positive reinforcers, drawing for weekly Mystery Motivators and self monitoring. The individual components of this intervention have been empirically supported but no study has combined these components within an urban classroom. Specifically, the research questions ask if the use of a comprehensive class wide intervention with multiple components is effective at reducing disruptive behaviors (e.g. talking out of turn, making noises, out of seat, etc.) and increasing student compliance as measured by direct observation with a sample of students with disruptive
behavior problems. Another research question asks if the teachers’ perception (as measured by the BASC) about students’ disruptive and compliant behavior improves after the use of such an intervention and if the intervention has social validity.

**Research Objectives**

This study seeks to find answers to the following questions.

1) Does the use of a comprehensive class wide intervention with multiple components reduce disruptive behaviors (e.g. talking out of turn, making noises, out of seat, etc.) and increase compliance (responding to teacher requests within 10 seconds, compliance to behavioral expectations) as measured by direct observation with a sample of students with disruptive behavior problems?

2) Does change in teacher perception (as measured by the BASC) about students’ disruptive and compliant behavior occur after the use of a comprehensive class wide intervention with multiple components?

3) Does the comprehensive class wide intervention appear to be acceptable to the teacher?

**Significance of the Study**

The significance of this study lies in the fact that little research exists using behavioral interventions in urban classrooms; even less has been conducted with gifted students. Lippman, et al (1996) concluded that findings from their study indicated a pronounced need for further research on classroom management in urban high poverty schools. This study will help demonstrate if a clearly prescribed manner of issuing teacher requests coupled with both positive and reductive consequences and clearly stated behavioral expectations improves classroom behaviors in diverse urban settings.
Although not addressed by the research questions in this study, improvements in classroom behavior should have beneficial effects on academic achievement as well. Improved academic achievement in urban settings has far reaching significance both for the individual students and their communities.

**Limitations of the Study**

A potential limitation of this study is the generalization of the results to other students. In this study, students in an urban gifted and talented classroom were used as subjects. There are potentially two problems with generalization here. Variation exists in how the students are defined as eligible for this program potentially limiting generalization to other gifted urban classrooms. The other is that as these students are labeled gifted, it is unclear how similar they are to students in regular education urban classrooms.
CHAPTER 2

LITERATURE REVIEW

In order to more thoroughly elaborate on the purpose of the proposed study as well as the statement of the problem, this chapter will offer a more thorough discussion and review of the relevant bodies of research. This chapter will review literature pertaining to existing behavior problems in urban schools, teacher background, teacher perceptions of diverse students behavior, teacher training, interventions for culturally diverse students, discipline in urban schools, positive behavior supports, behavior management studies in urban settings, precision requests, mystery motivators and gifted minority students. At the end of this chapter the reviewed literature is summarized and further details of the current study are discussed. Finally, the rationale behind the individual components of the intervention are reviewed and tied to existing research.

Behavior Problems in Urban Schools

Students in urban schools are at risk for behavioral problems partially due to the school environment (McIntyre, 1994; Waxman & Huang, 1997). Quality of inner city school’s structure and physical resources are often grossly inferior to their suburban counterparts. Tremendous inequities in school resources due to inequitable systems of funding within the United States have been well documented (Kozol, 1992). Additionally, novice teachers are often assigned to these schools that not only lack
experience but lack professional support and guidance (McIntyre, 1994). This leads to urban schools populated by teachers with relatively little experience or support and a subsequent high rate of turnover among teaching staff (McIntyre, 1994; Ladson-Billings, 2001). In a study by Lippman, et al (1996) urban high poverty schools were most affected by problems such as fewer necessary resources for teachers, hiring difficulties, and higher teacher absenteeism.

Teacher background

The background of the teacher and the students impacts behavior interventions. As the student population becomes increasingly diverse, educators must recognize how the selected behavior interventions can be influenced by the students’ cultural backgrounds and that teachers backgrounds influence their selection of interventions (Ishii-Jordan, 2000). Teachers’ own contributions to their students’ behavior and learning problems are often not taken into account (Hayes & Price, 2000). “To be successful teachers need to accept the fact that working with diverse children, who have different needs and styles, is demanding and they need to be educated in ways of making their own behaviors more compatible with such diversity” (Laut, 1999, p. 2). Behavior is defined in a cultural context and in order to deal with “deviant” or “maladaptive” behavior it must be understood in that context (Peterson & Ishii-Jordan, 1994). Teachers are often unaware of cultural differences in behavior, or they neglect or minimize their impact. They fail to recognize that the behavior of urban and culturally different youth has been modeled from a frame of reference other than their own. “When educators are unfamiliar with the values, perceptions and learning styles of their pupils, they are at great risk of
reacting to culturally based behavior in a manner that is culturally insensitive, and perhaps even inappropriate or offensive in a certain student’s culture” (McIntyre, 1994, p. 221).

**Teacher perceptions**

Related to the background of the teacher is the literature that has examined teacher perception of student behavior. Teachers’ ability to judge social skills and behavior is less accurate than their ability to assess academic ability (Hosp & Hosp, 2001). The ability to judge social skills and behavior is likely worsened when cultural differences exist. People interpret other’s behavior through their own expectations and experiences. Behavior that does not match expectations or experiences may be misinterpreted. Students may perceive a classroom teacher’s misperceptions of their behavior as biased or prejudicial (Cartledge & Loe, 2001). “For both children and teachers, cultural variation in ways of being and communicating could accentuate categorization of each other. Just as some Black children’s verbal responsiveness and playfulness could be judged “bad”, so too other children’s ways of being could be viewed as indicators of social, moral or intellectual qualities” (Dyson, 1997, pg. 50). In fact teachers may possess a confirmatory bias making them prone to notice behavior that confirms their expectations (Hosp & Hosp, 2001). Dana (1992) found that teacher and student characteristics correlated with teacher perceptions of the frequency of discipline infractions and effectiveness of disciplinary techniques.

A teacher’s misperception of students culturally related behavior is important. The teacher’s expectations can negatively impact the interactions leading to multiple problems including ineffective instruction and referrals to special education (Neal,
McCray & Webb-Johnson, 2001). In fact, combined effects of race and class differences often means African American students are more likely to be misinterpreted by school personnel from both similar and dissimilar ethnic backgrounds (Townsend, 2000). In a study of teacher interns Dana (1992) found that classroom management appeared to be a problem due to both discipline technique and expectations. The interns’ prior childhood experiences were dramatically different than that of their students leading them to judge the behavior and experiences of their students as abnormal. Racially biased social perception may contribute to psychological alienation from school in minority students, which is related to behavior problems (Cartledge & Milburn, 1995). As diversity increases there is increased demand to reexamine teacher-training programs. Courses and experiences that provide preservice teachers with a functional cultural knowledge base that will improve their ability to accurately assess the children’s behavior.

**Teacher training**

The task of managing overcrowded urban classrooms, which are generally made up of large numbers of socially and economically disadvantaged students, is quite different from managing more affluent suburban classrooms. Classroom management is a major issue for prospective teachers who will teach a culture other than their own. Cultural diversity between students and teacher can hinder both student achievement and teacher effectiveness (Neal, et al., 2001). It is critical for teachers to identify aspects of children’s background that have the greatest relevance to the children’s adjustment, motivation and learning. Teacher educators need to address the meaning of cultural differences in relation to classroom management (Dana, 1992). Yet, few secondary
teacher education programs offer direct classroom management training and fewer still address the issues of cultural diversity that are critical to effective management in these classrooms (Matus, 1999). In a recent survey 403 general and special educators in Kansas; Utley, Delquadri, Obiakor, & Mims (2000) found that the most frequent response to a statement about multicultural education coursework was “no training”. Similarly Ladson-Billings (2000) stated that most teachers report that preservice training programs did nothing to prepare them to teach in diverse classrooms. “Multicultural education of teachers tends to be superficial and tangential” (Ladson-Billings, 2001, p. 78). Further complicating this absence of behavior management training for urban and multicultural settings is the fact that “prospective teachers are exposed to descriptions of failure rather than models of success. We expose student teachers to an education that relies upon name calling and labeling (i.e. “disadvantaged”, “at-risk”…) to explain its failures, and calls upon research study after research study to inform teachers that school achievement is intimately and inevitably linked with socioeconomic status” (Delpit, 1995, p. 168). Delpit (1995) points out that successful teaching of diverse groups of students calls for avoidance of interpretations of behavior in terms of deficiencies. Only slightly less neglected than education about cultural diversity is classroom management in teacher training programs.

The topic of classroom management is usually only addressed as a small part of a course and as a result much information on classroom management comes from experience (Kher, 2000). Less experienced classroom teachers tend to have very different perspectives on discipline than those teachers with more experience (Laut, 1999). Student teachers most frequently reported they would send a student to the office, give verbal
directives to stop behavior, lecture or reprimand, talk to students individually and involve principals or parents (Kher, 2000). Proactive measures were noticeably absent from the teachers’ responses. Goldstein (1995) reported that teachers who do not know how to effectively use praise, attention, reward, privileges, differential attention, time out and punishment may inadvertently contribute to student misbehavior. Common mistakes made by teachers include using behavior management techniques inconsistently, inadvertently reinforcing undesirable behavior, having unrealistic expectations, and modeling negative behavior. For example, in attempts to manage problem behavior Goldstein (1995) reported that teachers tended to pay attention to the noncompliant child and withdraw the attention when the child was compliant. If teachers are not trained to understand importance of positive reinforcement they may rely on punishment. Reprimands are the most frequently used punishments by teachers (Goldstein, 1995).

Over the course of a typical school day teachers make numerous demands of their students. Regrettably, classroom teachers often make critical mistakes in issuing commands and in the subsequent delivery of consequences. These mistakes often take the form of negatively reinforcing noncompliance (Hinshaw & Anderson, 1996; Strain, Lambert, Kerr, Stagg & Lenkner, 1983), providing little or no reinforcement for compliance, (Barkley, 2000; Strain et al., 1983) and repeating commands (Kehle, Clark & Jenson, 1996; Strain et al., 1983). Additionally, there are a number of other variables that teachers often fail to consider or implement correctly that adversely impacts student compliance.

Noncompliance is often identified as one of the most frequent and pervasive problems of deviant children; this problem can have particularly serious ramifications in
the classroom (Montgomery & Ayllon, 1993). Noncompliant behavior can place a student at risk for many problems including rejection by peers, diminished academic achievement, aggression and other inappropriate behaviors. This type of behavior can represent the beginning of a course leading to more intense forms of antisocial behavior in children as well as predict difficulty in adulthood (Patterson, 1986).

Lack of compliance is related to decreased academic performance. Following directions is a necessary prerequisite for further skill development (Hamlet, Axelrod, & Kuerschner, 1984; Yeager & McLaughlin, 1995). Rhode, Jenson and Reavis (1992) state that when a child complies less than 40% of the time to instructions the child’s learning opportunities may be thwarted. Students must follow directions in order to successfully complete assignments or lessons that are critical to developing and building on skills. Not only is compliance necessary for the individual students to achieve academically but, if students are noncompliant and disruptive teachers must deal with issues of classroom control and discipline taking away from existing instruction time (Yeager & McLaughlin, 1995; Townsend, 2000; Myles, Moran, Ormsbee, & Downing, 1992).

Recognizing the potential repercussions of noncompliant behaviors, an effective and efficient method of handling student noncompliance becomes increasingly important (Neville & Jenson, 1986). Interventions that increase compliance should lead to reductions in aggressive or other inappropriate behavior. Patterson’s coercion theory (1982) explains the connection between noncompliance and aggression as well as other inappropriate classroom behaviors such as swearing. In brief, Patterson’s theory explains that both the teacher and student are negatively reinforced when the student argues or refuses compliance and the teacher’s request is subsequently withdrawn. The student is
reinforced via the withdrawal of the demand, thus they escape or avoid the task. The teacher is reinforced by the cessation of the students arguing or defiance or escapes when the request is withdrawn. The reinforcement for the student leads to increasingly defiant behavior. The reinforcement for the teacher leads to withdrawing or avoiding more requests or commands in the future (Hinshaw & Anderson, 1996; Forehand & McMahon, 1981).

Teacher efficiency is hampered not only by limited proficiency in behavior management techniques, but may be further eroded when students bring diverse cultural variables to the classroom. In fact, many behavior management techniques may be ineffective with or harmful to students who are not Euro American or middle class (Ishii-Jordan, 2000). This situation is further complicated by the fact that the majority of public elementary school teachers in the U.S. are women, predominately white middle class women however; the majority of the population of students in these schools is becoming increasingly diverse (Hayes & Price, 2000; Ladson-Billings, 2001). Diversity in public schools does not just refer to ethnic or racial backgrounds, but to students whose parents are drug addicted, incarcerated or are children themselves (Ladson-Billings, 2001).

**Interventions for culturally diverse students**

School interventions for at risk students from minority backgrounds are rarely created with consideration for their cultural backgrounds. Teachers of minority at risk students tend to have low performance expectations, and are often critical rather than constructive. Interactions tend to be short and punishment oriented (Walker & Shinn, 2002). “Intervention should be positive, constructive and delivered early, geared to help
students experience success in school and in interpersonal relationships, all the while maintaining their unique cultural identity” (Feng and Cartledge 1996, pg 238.).

There is often a mismatch between the behavior promoted in the schools and that promoted by the culture in lower income and culturally diverse neighborhoods (Zabel & Zabel, 1994; McIntyre, 1994). “The clash between school culture and home culture is actualized in at least two ways. When a significant difference exists between the students’ culture and the school’s culture, teachers can easily misread students’ aptitudes, intent, or abilities as a result of the difference in styles of language use and interactional patterns. Secondly, when such cultural differences exist, teachers may utilize styles of instruction and/or discipline that are at odds with community norms. “ (Delpit, 1995, p.167). For example, Feng and Cartledge (1996) reported that African American students high-energy intense communication could be misinterpreted as “overly contentious” (p.238).

Ellison, Boykin, Towns, and Stokes (2000) observed in classrooms serving African American children from low income backgrounds and found that cultural themes associated with the mainstream culture such as, individualism and competition, were more prevalent than those themes such as, communalism and movement associated with the African American culture.

Cultural differences in expressions of power and explicitness may underlie many of the difficulties teachers face when working with diverse groups of students (Delpit, 1995). An example of differences in language use and displays of personal power that can result in classroom behavior issues exists in the form of teacher commands. White middle class teachers often issue veiled commands in the form of a question (Heath, 1978). Children from other backgrounds however may misunderstand this. Despite the
potential misunderstanding these commands do represent both true power and consequences. “If veiled commands are ignored, the child will be labeled a behavior problem and possibly classified as behavior disordered” (Delpit, 1995, p 35).

**Discipline in urban schools**

Existing school discipline policies have proven largely ineffective in urban settings. They tend to be harsh and overly punitive (Walker & Shinn, 2002). Schools have typically maintained a reactive, punishment-oriented posture in relation to “at-risk” students. This approach fails to recognize the need to identify students early on who show the signs of these problems, and mount comprehensive, maintained interventions that can divert them from this path at the beginning stages of their school careers (McIntyre, 1994).

Racial and cultural differences in the definition of good behavior, along with miscommunications, frequently lead to the inequitable punishment of ethnically diverse students by school personnel who do not respect their style of classroom participation. Hosp and Hosp (2001) report that African Americans communication style includes the listener as an active participant in conversation, this behavior extends to the classroom and may be perceived as disruptive. Townsend (2000) offers a similar example referring to the tradition of “call and response” in African American culture when listeners actively and verbally respond to speakers.

Living in a low-income neighborhood has been found to have a significant correlation with higher levels of externalizing problem behaviors in young children (Duncan, Brookes-Gunn and Klebanov, 1994.) Students of lower socioeconomic status are more likely to receive punishment in the form of class exclusion, and physical or
verbal punishment (Ishii-Jordan 2000). Arbitrary and excessive consequences for minor offenses can develop in all students a sense of powerlessness, dependence on authority, and anger that leads to further misbehavior (Schwartz, 2001). Questionable discipline practices that exclude students from school settings are used with students across ethnic groups; they are however especially problematic for African American students who continue to be disproportionately subjected to corporal punishment, suspension and expulsion (Townsend, 2000).

Suspensions and detentions may exacerbate students’ school-related problems because escaping or avoiding work or gaining the attention of adults and peers may reward students. Alternatively, the ability to remove a highly disruptive child from the classroom might reward teachers and actually discourage the use of procedures that require more effort (e.g., classroom reward programs) but are less severe (Ishii-Jordan, 2000). Suspension limits students’ opportunities to learn (Gottfredson, Gottfredson & Hybl 1993). Frequent school exclusion increases students’ opportunities to engage in illegal behaviors and behaviors that contribute to dropping out of school (Townsend, 2000). In fact the use of such forms of punishment (i.e. suspensions, detentions) may worsen risk factors for development of antisocial behavior. “Risk factors that appear to operate directly in the development of antisocial or destructive behavior include the following: (a) getting in trouble with the teacher, (b) failure to engage and bond with the process of schooling, (c) being socially rejected by teachers and peers, and (d) failing academically, especially in reading (Walker & Shinn 2002).
Positive Behavior Supports

Positive behavior supports (PBS) are a type of comprehensive proactive approach to behavior management. PBS involves a broad range of systemic and individualized strategies for preventing problem behavior and attaining relevant social and academic outcomes. PBS key features include a proactive approach; data based decision-making, and a problem-solving orientation. There is a continuum of both scope and intensity of the supports. The goal of PBS is not only a reduction in the challenging or problem behavior but teaching or increasing positive behavior that serves the same purpose and results in significant durable change (Deshler, 1996; Kincaid, Knoster, Harrower, Shannon & Bustamente, 2002).

There are several concepts integral to PBS. Bambara, Kvacky-Mitchell, and Iacobelli (1994) list some of these concepts. First, every problem behavior serves a function for the individual, such as gaining attention from adults or peers. Therefore the most effective interventions are proactive and functional such as those that teach alternative skills resulting in the same ends or modifications of the environment that prevent or decrease the likelihood of the behavior occurring. The effect of the intervention has to go beyond the change in the behavior. Outcomes that extend beyond behavioral gains and decreases are the long-term effects that strengthen a person’s quality of life such outcomes also help increase events and activities that are preferred and interesting (Dunlap, Hieneman, Knoster, Fox, Anderson, & Albin, 2000; Kincaid, et al., 2002). Finally, procedures need to be socially acceptable and not violate a person’s dignity and rights.
In order to meet the goal of preventing problem behavior and teaching socially appropriate alternative behaviors comprehensive multicomponent plans are required. PBS plans often have four interrelated components; environmental alterations activities, systems change activities, skill instruction activities, and behavioral consequence activities (Wilcox, Turnbull, & Turnbull, 2000). Environmental alterations refer to changes made to neutralize any setting events such as curriculum content, presence or absence of particular peers, classroom arrangements, and traffic patterns. Setting events can be biological such as illness, acute such as an argument with a parent before school or prolonged such as divorce or homelessness etc. (Jackson & Panyan 2002). Systems change activities can serve to increase predictability and increase choice making (Sisson, 1992) and include things like routines, schedules and discipline style (Jackson & Panyan, 2002). Among the most important concepts in PBS is increased attention to teaching individuals more effective and socially acceptable way of getting their needs met or skill instruction (Sisson, 1992). This includes directly teaching the student skills in which they are deficient such as social skills or academics, and teaching replacement skills, use of direct instruction and self-monitoring (Jackson & Panyan 2002). Finally, behavioral consequence activities refer to changing the consequences the student receives for engaging in a specific behavior (Sisson, 1992). These types of changes are aimed at making problem behavior less efficient. Replacement behaviors are selected that require less effort to gain access to the same types of reinforcers that maintain problem behavior. Problem behavior is simultaneously made less relevant by decreasing access to consequences that maintain it (Sisson, 1992).
PBS refers to a continuum of support plans that encompass school, contextual or classroom wide interventions as well. On a primary level, PBS involves school wide management strategies that are designed for all students. At a secondary level, it involves specialized group behavior support for students who are believed to be at risk (academically or socially) due to problem behavior or the presence of significant risk factors. These students require repeated practice and setting modifications (Lewis & Sugai, 1999). Finally, on a tertiary level PBS refers to individual support plan for students with chronic behavior problems. These plans are developed for students whose behavior has been unresponsive to more traditional or group based interventions.

Murphy and Davis (2002) conducted a class wide PBS study in a first grade classroom. Five positively worded classroom rules were created following a functional assessment. The problem behaviors included speaking at inappropriate times, noncompliance, failure to remain seated and invading other students’ personal space. A positive reinforcement system for rule following and reductive consequences for rule infractions was implemented. The classroom space and seating was rearranged to prevent problem behavior. The teacher provided students’ short behavioral reminder prompts or precorrections. The reinforcement system allowed for cumulative reinforcement opportunities as well as daily reinforcers. As a result of these interventions all problematic behavior decreased in frequency and duration by at least 50% and some as much as 80%.

Luiselli, Putnam and Handler (2001) worked with fifth grade students in a public elementary whose disruptive behavior was resulting in many office referrals. Following the functional assessment a PBS plan was implemented. The plan included increased
visual monitoring of students, creation of positively worded classroom rules, formation of classroom teams that received points for adhering to rules, public posting of points and exchange of points for daily and weekly preference activities. There was also a tertiary plan for an individual student with chronic behavior problems. The individual plan included individual instruction during high demand tasks, a self monitoring chart to document prosocial activities, increased teacher praise, breaks from academic tasks and access to preferred activities contingent upon accurate self monitoring.

After 3-4 months there was a significant decrease in office referrals from an average of 3.2 per week to 1.4 a week across the whole class. After 6 months there was a decrease to 1 office referral every 3 to 4 weeks.

**Behavior Management in Urban Settings**

A small number of behavior management studies have been conducted in urban settings in both regular and special education classrooms. They have included studies on self-monitoring, behavioral coaches and comprehensive behavior management systems including positive behavior supports.

**Self-Monitoring**

Self-monitoring or self-management strategies have been used in urban settings. Self-management refers to any action an individual takes to control his or her own behavior. Through systematic direct instruction students are taught to monitor and evaluate their own behavior. Self-management procedures have been considered to have many benefits including the likelihood of increased maintenance and generalization of obtained behavior change, less teacher time required to administer and therefore more
time to teach, they help students accept additional levels of responsibility for their own behavior, and are effective with a variety of students (Kern, Dunlap, Childs, & Clarke 1994).

Levendoski and Cartledge (2000) conducted a study using self-monitoring with elementary school children with serious emotional disturbances in an urban self-contained setting. The objective of this study was to increase both on task behavior and academic responding. In this study students monitored their on task behavior with the aid of both visual and auditory cues. Each student was given an index card with the question “At this exact second am I doing my work?” printed on each. Data was collected on on-task behavior during 20-minute periods when students were expected to be working independently.

Using an ABAB reversal design, the results indicated that when the self-monitoring was in place both on task behavior and academic productivity increased. Time spent on task appeared to have been maintained at intervention levels for the students who continued through the fading condition. However, the authors note a potential caveat, students may appear to be academically engaged when in actuality they are not as it is difficult to define on task behavior

Babyak, Luze, and Kamps (2000) conducted a study in three urban elementary classrooms using the good student game, an intervention that also uses self-monitoring. The good student game originally created by Landrum and Tankersley (as cited in Babyak, et al., 2000) is a classroom management tool that uses a game format to help students monitor appropriate classroom behavior. This game allows teachers and students to focus on positive behaviors by attending to and having students record rule following
behaviors. The game can be played with an individual student or in groups. The teacher chooses two to three clearly defined target behaviors that are most problematic, as well as goals and reinforcers. The teacher defines good student behavior and provides examples as well as nonexamples. Students either self monitor or work in groups in which there is one peer monitor. Prior to implementation the students role-play. At the end of the role play the monitor rates the behavior of group members or self.

In the three urban elementary classrooms the game was played in groups. Observations were made for 30-minute periods with behaviors recorded in 30-second intervals. Data collected in all three classrooms demonstrated increases in the percentage of time students were seated and quiet.

*Behavioral Coaches*

A study conducted in one of the largest school districts in the United States used behavior coaches for urban at-risk middle school students. Behavior coaches were assigned to case loads of about 30 students. Coaches were trained in case management, community services, effective behavior management, behavior modification, crisis prevention intervention and safe physical management. Coaches worked with students in deescalating situations, contacting parents regarding positive responsible behavior, contingency management, teaching students to be assertive rather than aggressive, role playing techniques, behavioral rehearsals, understanding behavioral expectations, etc. As a result of the use of such coaches the study reported positive results based on reduced suspensions both school wide and for the individual students being coached (Munoz & Bacci, 2002).
Comprehensive Behavior Management

PBS involving individual supports has been the focus of research in the disability field over the last 15 years. This type of comprehensive behavior management system has repeatedly demonstrated effectiveness with a wide variety of problem behaviors and in a variety of settings. However, there has been little application of such interventions in urban schools (Turnbull, Edmonson, Griggs, Wickham, Sailor, Freeman, Guess, Lassen, McCart, Riffel, & Warren, 2002).

Gottfredson, Gottfredson, and Hybl (1993) used a comprehensive system of behavior management in 8 urban middle schools over a period of 3 years. Their program sought to increase clarity of school rules, consistency of rule enforcement, improve classroom organization and management, increase the frequency of communication with the home and increase reinforcement of appropriate behavior. A significant component of their program included clarifying the school’s discipline policy. This included not only increasing clarity of rules but also specifying consequences and increasing consistency through school wide and individual classroom policies. A computerized behavior tracking system was used to increase communication with parents and increase their awareness of both positive and negative behaviors. Another component involved improving classroom organization and management. The final component was the use of positive reinforcement, which was based on the assumption that misbehavior was in part the result of the environment reinforcing the misbehavior and failing to reinforce the desirable behavior.

In this study, teams were formed in each school a year before implementation began. There were different levels of implementation in different schools due to changes
in administration and variation in administrative support over the course of the planning year. Two schools that were using only part of the program were used as comparison schools. The results indicated that when the components were well implemented they had positive effects on behavior. However, students at all three levels of implementation reported receiving more rewards and less punishment.

Kamps, Kravits, Stolze, and Swaggart (1999) implemented a comprehensive system of prevention strategies for at-risk students with emotional and behavioral disorders in urban elementary schools. This study used a target group of 11 students and a control group of 6 students. Direct observation was used to assess compliance with academic and behavior requests, academic engagement, and rates of aggression, negative verbal remarks, and out of seat behavior in the classroom. At recess positive and negative peer interactions were observed. Compliance was defined as initiating appropriate responses within 5 seconds.

The prevention program was fairly comprehensive. The program included social skills training once a week, peer tutoring and a positive behavior management system which included a token reinforcement system allowing students to earn both social and tangible reinforcers as well as a response cost system with a hierarchy of reductive consequences, student contracts and home school notes. Their data suggested a strong relationship between behaviors and environmental variables, as well as teacher consistency and positiveness in applying management systems.
Kamps, Kravits, Rauch, Kamps, and Chung (2000) continued to implement the prevention program for students with or at risk for emotional and behavioral disorders in urban general and special education classrooms. The study was expanded to include 38 students total in two cohorts over 2 years.

Overall, they found a reduction of frequency of physical aggression toward peers and other inappropriate behaviors that interfered with classroom performance, increased behavioral compliance and academic engagement. Trend analysis of student outcome data indicated decreased aggression and out of seat behavior as well as increases in academic engagement and behavioral compliance for both groups that experienced higher levels of intervention. Higher levels of classroom structure were associated with decreased problem behavior and increased academic engagement.

Turnbull, et al., (2002) implemented a school wide positive behavior support system within an urban middle school with 762 students. This school had the second lowest grades in the state, the highest poverty rate, the third highest number of deaths, and high rates of violence against staff and students compared to both district and state averages.

In this study universal supports were used school wide. These supports included three to five universal behavioral expectations that were defined, framed in a positive way and explicitly taught to all students. Among staff, extensive communications regarding these expectations were developed. Students were taught replacement skills or a different way to accomplish same purpose or problem solving skills. A reinforcement system was implemented to acknowledge and reward compliance. School wide progress
was monitored through rates of office referrals, suspensions, and other indirect measures such as attendance, test scores. Ongoing evaluation of progress was conducted to allow changes to be made as needed.

Group support included interviewing specific students and making observations of specific school settings for targeted behaviors of specific students. The goal of assessment is to look for patterns of behavior among groups of students. Hypotheses dealt with smaller groups of students with more homogenous behaviors. A self-management system for these students was implemented. They were provided setting specific instructions, taught social skills, and provided with a reinforcement system. Group supports included classwide systems; check in/check out systems with the main office.

Individual supports were created by conducting a functional behavioral analysis of the students in specific settings in which the problem behavior was occurring. This often included an interview, direct observation and review of records. Hypotheses were made dealing with the individual student. Individual supports involving changing the setting events and antecedents as well as attention contingencies including providing reinforcement also resulted in decreased problem behavior.

Overall, statistically significant results were observed in terms of office referrals, time outs and suspensions. However, the rates of decrease in this school were noted to be less than those achieved with similar intervention systems in nonurban settings.

A case study by Cartledge, Sentelle, Loe, Lambert, and Simmons-Reed (2002) involved a comprehensive system of positive behavioral supports within an inner city gifted and talented classroom. Three levels of support were implemented over the course of 2 years.
A general mission statement and list of positive behavioral expectations were created based on observations of the classroom. Compliance with these expectations was coupled with a reinforcement procedure that allowed students to earn reinforcers twice a day. A response cost system was implemented in which students lost points for noncompliance. Additionally, the classroom teacher was given instruction on how to improve her style of interacting with students. Over a 10-week period, these interventions resulted in nearly a 50% reduction in disruptive/noncompliant behaviors.

Students in the classroom were directly instructed in social skills. Question and answer sessions were conducted following the lessons. Skills were modeled, and students were provided the opportunity to role-play. Chorale repetition of the key steps of each lesson was conducted as well.

Finally, a tertiary level was added for an individual student who displayed chronic behavioral difficulties despite the other ongoing interventions. This involved the implementation of a compliance matrix and the use of precision requests by the teacher. The compliance matrix involved a type of Bingo card where the student earned the ability to complete rows or columns based on his compliance to the teacher’s precision requests. Completion of rows or columns resulted in access to positive reinforcement. The precision requests were indicated by key words, eye contact, and proximity to the student. Although there were some procedural difficulties in this study, there did appear to be some positive albeit mixed effects of the individual intervention.

It seems clear that to effectively manage classroom behavior particularly in urban settings requires that teachers have many logically related interventions in their repertoire.
There are many complex variables to consider when facilitating interventions or behavior management systems within urban settings with diverse children. Unfortunately, many teachers within these schools have not been provided adequate training in either behavior management or in meeting the needs of culturally diverse students.

**Precision Request**

Most teaching takes place through communication, which includes both verbal and nonverbal components that impact the students’ behavior. Verbal and nonverbal communication style differences may create opportunities for cultural conflict and misinterpretation (Townsend 2000). The precision request represents an attempt to overcome some of these difficulties. Precision requests include several verbal and nonverbal elements. Among the verbal components are the format used when giving a command, tone of voice, level of emotion, and whether compliance is followed with verbal reinforcement (Rhode, Jenson, & Reavis, 1992). The nonverbal components include the teacher’s proximity to the student, eye contact, and timing.

Probably the most extensively researched component of the precision request is the format used when giving commands or directives. The format of the command involves the language used. Language in the classroom is different from general conversation in many respects. Because many students do not come from backgrounds that share mainstream middle class conventions they have difficulty interpreting the rules, meanings and situations of classroom language (Heath, 1978). They must learn this language in order to get along in the school environment as well as the values and
behaviors implied in this type of communication. This is particularly relevant in light of the growing diversity of students and homogeneity of teachers in the classrooms (Delpit, 1995).

While the population of k-12 students is growing increasingly diverse, the teaching population is increasingly homogenous, (i.e. white middle class women) (Ladson-Billings, 2001). The National Center for Education Statistics (NCES) reported that for the 1999-2000 school year 68% of the students were members of a “minority” group in 100 of the largest school districts. When the focus is narrowed to 8 of the 10 largest districts, the percentage of minority students increases to 75%. In instances, such as culturally heterogeneous classrooms, teachers must make an effort to communicate clearly to students by explicitly instructing the student in expected values and behaviors. (Heath, 1978)

Teachers must also consider the cultural context as well as the cultural and ethnic background of their students (Shuming Lu, 1997). If teachers fail to consider the differences that exist between themselves and students, they may perpetuate compliance problems. “Many of the difficulties teachers encounter with children who are different in background from themselves are related to an underlying attitudinal difference in appropriate displays of explicitness and personal power in the classroom” (Delpit, 1995, p. 168). An example of differences in language use and displays of personal power that can result in classroom behavior issues exist in the form of teacher commands.

Noncompliance can occur when a command is issued to another person or situations in which a rule is not directly stated but is in effect, such as that which occurs when imbedded imperatives or polite directives are used. Two types of directives
frequently used by white middle class teachers are imbedded imperatives and permission directives. An example of an imbedded imperative is “Could you sit still?”. A permission directive is a statement such as, “May I have all eyes on me?” Determining the appropriate response to such types of directives requires accurate interpretation of the intention. In addition to these two types of veiled commands commonly used by teachers, there is also the frequently used tag question. These are also questions in which the teacher does not really expect a verbal response. An example of a tag question would be “You don’t want your grade to drop this quarter, do you?” Heath (1978) asserts that the use of a tag question is a “common way of neutralizing assertions about intentions, motivations, and responsibility” (Heath, p.14).

Delpit (1988 & 1995) discusses the use of these types of indirect commands by Caucasian teachers in relation to African American students. In a 1988 article Delpit addressed the expectations and interpretations of Black children with regards to the classroom teachers’ role. She wrote that Black people often look at issues of power differently than people from mainstream middle class backgrounds. They expect authority to be earned by personal efforts and exhibited in personal characteristics. To the African American student the use of an explicit directive displays a high degree of personal power. Using indirect commands as an attempt at reducing implications of overt power and to create a nonauthoritarian classroom may downplay the teacher’s position of power. Not only are explicit commands more like what African American students hear at home but also the indirect commands may be interpreted as fearfulness (Delpit, 1995).
The result may be the Black student perceiving “the middle class teacher as weak, ineffectual, and incapable of taking on the role and therefore there is no need to follow her directions” (Delpit, 1988, p. 290).

Not only should a command never be issued in a question format because some students lack experience with these types of directives but it could be confusing for other reasons as well. One obvious reason is that a command is not really a question, the inflection at the end asks for the child’s consent, however, a positive and nonverbal response is actually expected. It is more effective to tell the student it is now time to do something rather than asking them if they want to do something (Barkley, 2000). “This may be critical for individuals who have difficulty organizing their thoughts and problem solving.” (Kehle, Clark & Jenson, 1996, p. 637).

The confusion associated with indirect commands or imbedded imperatives extends beyond different ethnic groups to different social classes as well. Heath (1983) writes of two working class communities in the early 1970’s, one Caucasian, one African American. The teacher’s that were new to the area found the children’s behavior confusing, particularly the verbal differences between the teachers and the students. The teachers at the school tended to issue directives in a “polite” manner or question format, which was interpreted by the children as actual questions or options. Additionally, rather than explicitly stating rules or expectations the teacher’s were indirect or modeled for the children. The children did not seem to understand that their compliance to an unstated set of rules was being requested. As teacher’s made efforts to use more explicit language the children showed marked improvements in their behavior.
Forehand and McMahon (1981) describe two types of commands used by adults, alpha and beta commands. Alpha commands are orders, rules, suggestions, or questions “to which a motoric response is appropriate and feasible” (Goldstein, 1995, p. 149). Alpha or appropriate commands are specific and direct, given one at a time, followed by a wait of 5 seconds and reinforced if the child complies within 5 seconds. Beta commands on the other hand are commands that do not give the child the opportunity to comply. Examples of beta commands or poor commands include vague or question commands, commands followed by rationale or other verbalizations that obscure the directives, chains of commands strung together, commands that do not give the child the time to comply or “Let’s…” commands if the parent or teacher has no intention of participating (Forehand & McMahon, 1981). Finally, commands followed by a rationale allow children to stall or postpone by asking “why?”. Rhode, et al., 1992; Forehand and McMahon, 1981 and Barkley, 2000 all report that chains of commands or multiple requests should not be used. Peed, Roberts, & Forehand (1977) found that a high rate of beta commands not only adversely influenced the child’s compliance to the all of the commands but also may result in escalating a maladaptive interaction pattern.

Another variable related to the compliance to a command is how many times requests are made. Teachers should not nag; a command should only be given twice. More requests means less compliance (Rhode, et al., 1992). This is considered true unless the child has attention problems, which may interfere with their ability to comply after hearing a command only once (Kehle, et al., 1996). For those children, Barkley (2000) suggests additional strategies such as reducing all distractions before issuing the command or having the child repeat the command.
Whether a command tells the child to start or stop an activity is also thought to affect compliance. Rhode et al., (1992) suggest that if classroom rules and planned consequences are designed and implemented correctly, teachers should be making more start or do requests than stop or don’t requests. Some research has indicated that a don’t or stop instruction may serve as a discriminative stimulus in a chain and may become a conditioned reinforcer which actually strengthens the initial misbehavior (Neef, Shafer, Egel, Cataldo & Parrish, 1983; Jones, Sloane, & Roberts, 1992).

Neef, et al., (1983) examined the effects of compliance training with do and don’t requests. Based on their findings they suggest that “do” and “don’t” requests represent distinct response classes. Children might possibly learn to differentiate between the two types of requests based on whether compliance is likely to be reinforced. Teachers may not reinforce for “don’t” requests in same manner as they do for “do” requests (Neef et al., 1983). Additionally, “do” requests are likely to require the student to engage in an activity that is not particularly reinforcing whereas “don’t” requests require the child to disengage from something that is presumably already reinforcing (Neef et al., 1983).

Jones, Sloane, and Roberts (1992) also conducted a study looking at some limitations of “don’t” commands. Their findings also suggest caution when using “don’t” commands as they may become discriminative for reinforcement. For example, if the misbehaving child obeys the request to stop a behavior they avoid the discipline associated with noncompliance and may receive social or tangible reinforcers contingent on compliance to the “don’t” request. Similar to Neef at al., (1983) they suggest that the “don’t” instruction may be a discriminative stimulus in a chain and may become a
conditioned reinforcer, which strengthens the initial misbehavior. Negative adult attention is still attention and as such can serve to reinforce behavior (Jones, Sloane & Roberts, 1992).

Among important verbal variables impacting compliance is the teacher’s tone of voice (Kehle, et al., 1996; Hudson & Blane, 1985). Rhodes, et al., (1992) state that teachers should use a quiet voice rather than yell. Some teachers believe that yelling not only gets the student’s attention but also increases the emphasis of what is said. However, O’Leary, Kaufman, Kass and Drabman (1970) examined the impact of loud and soft reprimands. Not only did they find that frequency of disruptive behavior decreased in most children when soft reprimands were used but they found that soft reprimands offered other advantages. The use of soft reprimands does not single out the child so his disruptive behavior is made noticeable to other students. This is especially important considering that many behaviors are maintained by attention (Rathvon, 1999). Petrie, Lindauer, Bennett and Gibson (1998) looked at the prosody or the tone, pitch and rhythm of the teacher’s voice. They also found that an over reliance on verbal techniques calls attention to the disruptive behavior and takes away from instruction. O’Leary et al., (1970) also assert that soft reprimands are presumably different than what many children receive at home and therefore may be less likely to trigger conditioned emotional reactions.

Not only is the tone of voice and facial expressions used important in communicating but so is the level of emotionality. There appears to be some conflicting advice given to teachers regarding the expression of emotion. Rhode, et al., (1992) advise being nonemotional yet, Delpit (1995) presents a perspective that is somewhat contrary to
this. She reports that cultural groups outside of the middle class mainstream “consider expression of genuine emotion and personal presence to be at the core of the teaching role.” (Delpit, 1995, p.141). However, based on examples provided by Rhode et al., (1992), it seems they are referring to an unproductive displays of emotion such as “ugly faces”, “deprecating comments about the student or his/her family” (p. 61) rather than the consistent expression of genuine emotion addressed by Delpit.

Specificity of the command is another factor that impacts children’s compliance to directives. It is extremely important to describe the behavior that is expected (Rhode, et al., 1992). Kehle, et al., 1996 report that making reprimands and requests for compliance specific increases the likelihood that students will comply. Being specific allows the student to know exactly what is expected without leaving the child to interpret the intent or meaning of a request or command. “In addition to telling students what they are to do, school personnel need to make the behavior explicit and teach the behavioral expectations” (Cartledge & Loe, 2001).

Finally, another variable that affects compliance is the social or verbal reinforcement the student receives for compliance. Rhodes et al., (1992) assert that if students are not rewarded compliance will decrease. Teachers fail to consistently verbally reinforce for a variety of reasons. Some feel that if the student is doing what is expected then they do not need to reinforce them (Barkley, 2000). Others may feel that if they reward the student or draw attention to the student’s compliance the student may stop complying (Barkley, 2000). According to Rhodes et al., (1992) students need to be
reinforced if teachers expect compliance in the future. “For children, previous
compliance is the best predictor of future compliance or noncompliance” (Goldstein,

The correct presentation of a reprimand or request also involves nonverbal
variables that impact student compliance. Among these is the physical proximity to the
close to the student when giving a command. Others have empirically supported this
found that reprimands delivered from one meter away were considerably more effective
than reprimands delivered from seven meters away. Petrie, et al., (1998) found that the
closer a teacher is to a student, the less likely the student is to misbehave. Hudson and
Blane (1985) conducted a study involving mother child dyads rather than teachers. They
too found that the distance from child impacted the rate of compliance.

Timing is another important nonverbal factor that impacts student compliance.
When giving a student a command it is important to give the student adequate time to
comply. Peed, et al. (1977) conducted a study of mothers and their noncompliant
children. They found that improving child compliance to the total number commands was
related to not only the mother’s ability to consequate the child’s behavior but, also on the
amount of time the child had to comply with the commands. In a study by Forehand,
Gardner and Roberts (1978) mothers prevented child compliance 35% of the time by not
allowing the child sufficient time to comply. Mothers frequently interrupted and repeated
commands. When the child was noncompliant the mothers tended to repeat the
commands. Jenson and Reavis (1996) reported that 40% of the time teachers were guilty of the same thing and failed to give their students an adequate amount of time to respond.

Eye contact is an important nonverbal variable that impacts compliance (Hudson & Blane, 1985; Kehle, et al., 1996). Hamlet, et al., (1984) noted that eye contact is a critical part of an overall response chain involved in attending to the teacher. They found that eye contact was an effective antecedent for increasing compliance to instructions. VanHouten, et al., (1982) demonstrated that verbal reprimands delivered with eye contact and firm grasp of the student’s shoulders decreased disruptive behavior to greater extent than reprimands without eye contact.

There are cultural and ethnic differences in nonverbal elements of communication that may impact compliance. Pitton, Warring, Frank and Hunter (1993) conducted a survey of adults in the Minnesota area looking at cultural specific nonverbal behaviors. They reported that Euro Americans generally preferred direct eye contact and interpreted this as a sign of confidence and respect; it was also associated with effective listening. However, this was not true for Native Americans and Asian Americans. African Americans reportedly often do not look directly into another’s eyes if being given reprimand. They also reported that in Hispanic cultures prolonged eye contact is considered disrespectful. So despite the general effectiveness of eye contact in issuing reprimands or requests it is important for educators to be aware of and sensitive to cultural differences that may dictate otherwise.

Hosp and Hosp (2001) conducted a study of behavior differences in verbal and nonverbal variables between Caucasian and African American students. They found differences between African American and Caucasian behavior styles that may lead to
differential outcomes for groups of students. African American students were found to have a penchant for movement and cooperation and to view the role of listener as one of an active participant that interjects comments while listening. This was different than the behavior style displayed by the Caucasian students who displayed more of a propensity for independence and passive styles of learning and listening. Many of the behaviors displayed in the African American students’ behavior style are considered disruptive in education.

There are some guidelines to increase the effectiveness of social or verbal reinforcement. Some overlap with the guidelines established for obtaining student compliance. These guidelines are represented by the acronym IFEED-AV (Rhode, et al., 1992). The first general guideline is reinforcement should be delivered immediately if the behavior is to be increased or maintained (Rhode, et al., 1992; Cooper, Heron & Heward, 1987). To maintain its effectiveness reinforcement should also be delivered frequently (Rhode et al 1992). Enthusiasm is important and conveys to the student that both the behavior and reinforcement are important. As previously reviewed eye contact is important. A description of the behavior indicates to the student exactly why he is being reinforced. This is especially helpful if the behavior being reinforced involves several steps. Anticipation refers to the teacher building excitement and anticipation to help motivate the students to want to earn the reinforcers. Finally, variety refers to changing reinforcers around so that students do not get bored and subsequently reinforcers lose their effectiveness. The more novel and varied reinforcers are the more likely they can be used to increase a students behavior (Heron, et al., 1997).
Precision requests are a specific manner of issuing a command that implements these guidelines for reinforcement and the research on both verbal and nonverbal elements of communication that impact compliance (Kehle, et al., 1996). Although there is little research on the precision request itself, it encompasses findings of many studies. Precision requests can be used to increase appropriate classroom behaviors and decrease inappropriate behaviors. They help improve communication in the circumstance of culturally diverse classrooms. Precision request also provides the opportunity to teach the teacher to use “requests that are more culturally appropriate for low socioeconomic African American students.” (Cartledge, et al., 2001, p. 17). The precision request technique is based on a parent-training program by Forehand and McMahon (1981).

Forehand and McMahon (1981) described a parent-training program for dealing with noncompliant children that incorporates positive reinforcement, reductive techniques and commands. This program was based on social learning principles and designed primarily for younger children. There were two phases to the parent training. The first treatment phase was called differential attention. This phase involved teaching the parents about the positive reinforcement rule and attention. Parents are taught that if behavior is reinforced immediately it is likely to occur in future and that the child will work for attention from others. Parents were taught to attend to the child’s compliant behavior and describe it. Rewards were to be specific, immediate and consistent. Noncompliant behavior was to be ignored by giving the child no eye, verbal or physical contact. Phase two involved compliance training and was conducted in conjunction with
phase one. Parents were taught to not issue commands in indiscriminate manner, to not command unless they are prepared to ensure compliance follows and to make all commands clear.

Parents were also taught how to effectively use punishment and reinforcement. Effective punishment and reinforcement is characterized by immediacy and consistency. Punishment involved removing access to all reinforcers with a clear method for getting them back. A verbal warning signal, which served as a cue of impending consequences was used to help the children develop internal controls so external controls like punishment are needed less often. Both punishment and reinforcement are to be carried out in a calm, matter of fact way. Differential reinforcement of incompatible behaviors should always accompany punishment.

The parent training procedure was adapted to the classroom by Rhode, et al., (1992). In this adaptation, called the precision request, the teacher explains the precision request and consequences to the students before the procedure is started. A quiet “Please” request such as “Please get your materials out and begin working.” is to be made in a nonquestion format, up close with eye contact. The teacher then waits 5-10 seconds after making the request and does not interact with the student during this time. If the student starts to comply they are then verbally reinforced using the IFEED-AV guidelines of reinforcement. If the student does not comply within 5-10 seconds, a second request is given with a signal word “need”, such as, “Now I need you to start working.” If the student starts to comply they are then verbally reinforced. If the student still does not comply within 5-10 seconds the teacher implements a preplanned reductive consequence. Immediately after the reductive consequence the teacher again repeats the request using
the signal word “need”. If the request is not repeated, the student is allowed to avoid the original request by taking the consequences and thus negatively reinforced for their noncompliance. They must receive the message that they are still required to comply with the original request. If the student complies, he is reinforced. If not, the next preplanned consequence from the hierarchy is to be used. Reductive consequences continue to be applied until the student complies, “the trick is designing an effective hierarchy of reductive consequences”. (Rhode et al., 1992, p. 63).

Despite the social validity of the precision request techniques there is a scarcity of empirical research on the use precision requests. Bray and Kehle (2000) found “no empirical data to support its specific use beyond the research conducted on requests for compliance” (p. 155). No studies have addressed the use of the precision request for the purpose of overcoming potential miscommunication due to cultural differences.

Mandal, Olmi, Edwards, Tingston and Benoit (2000) implemented a procedure they called effective instruction delivery, which was very similar to that of the precision request. This study was conducted in a lab with parent-child dyads rather than teachers. In their study they found that the children’s rate of compliance to parent’s instruction increased significantly when parents used eye contact, directive statements, close proximity, descriptive instructions, a 5-10 second wait period for compliance and praise for compliance.

The effect of precision requests on a 12-year-old female special education student with severe noncompliant behaviors was studied by Mackay, McLaughlin, Weber and Derby (2001). Precision requests in conjunction with a response cost system were implemented both at home and in a neighborhood setting. The student’s compliance
increased significantly at home and in the neighborhood setting with use of precision requests. The parent reported that the procedures were easy to implement in home and neighborhood settings. The authors recommend using printed directions for precision requests to maintain consistency across care providers.

Musser, Bray, Kehle, and Jenson (2001) conducted a study using precision requests aimed at reducing disruptive behaviors in students with a serious emotional disturbance (SED). Three African American students were involved, two males that were 8 and 10-years-old and one female that was 9-years-old. All were labeled SED and diagnosed with Oppositional Defiant Disorder (ODD) and Attention Deficit Hyperactivity Disorder (ADHD). This intervention involved a combination of components. The use of precision requests, positively stated rules posted in the classroom, mystery motivators or unknown reinforcers, teacher movement, a token economy and response cost system were implemented. This combination was found to be effective at reducing disruptive behaviors in students with SED. The teachers found the intervention combination to be easy to implement and it produced immediate, substantial behavior change. The results were so positive that they further suggest that such a multicomponent intervention may allow students with SED to remain in less restrictive environment. The students’ level of disruptive behavior decreased to level that would be acceptable in general education classroom.

De Martini-Scully, Bray and Kehle (2000) implemented a packaged intervention that included components of PBS in a second grade classroom in an urban public school system. There were three female subjects, one served as a control. Dependent measures included direct observation of the girls in the classroom. Baseline and follow up child
behavior checklists were completed. Problem behaviors were determined to be noncompliance, talking out of turn, out of seat and staring in direction other than the teacher or work. The classroom teacher was trained in the use of precision requests (Rhode, Jenson & Reavis, 1992). Students were reinforced with a token if they complied with the teacher’s first request within five seconds. Classroom rules were posted and compliance to those rules also enabled students to earn tokens. After students had earned three tokens they could have an unknown reinforcer or a Mystery Motivator (Rhode, et al., 1992). Students could lose tokens by failing to respond to the teacher’s second request for compliance within five seconds. The intervention was conducted for two weeks and then withdrawn for two weeks. After being withdrawn the treatment was reinitiated without the use of the tokens or response cost in an effort to make the intervention more user friendly. At this stage, verbal reinforcement was provided for compliant behavior and loss of five minutes of recess time. Significant decreases in disruptive behavior occurred and the teacher felt that the intervention was easy to implement.

Kehle, Bray, Theodore, Jenson and Clark (2000) present an on-going line of research using a multicomponent intervention similar to the one described above in both general and special education classrooms. The focus of these studies has been on the relative effectiveness of the three forms of classroom group contingencies. Independent contingencies provide each student with the same criteria and each student’s ability to earn reinforcers is determined solely by their behavior. Dependent group contingencies mean that the students’ access to reinforcers is based in the performance of an individual
or small group of students. Interdependent group contingencies involve treating members of a group as single individuals. To date the results are mixed as to which contingency is most effective at reducing disruptive behaviors.

Precision requests by themselves allowed for some students to delay compliance in a study by Neville and Jenson (1984). Children who were typically noncompliant would wait for the “you need to” cue and thus delay compliance. As a result the “Sure I Will” program was added in which child earns points toward reinforcer for complying on first request. Additionally this trains students to begin replying to commands affirmatively. They found that the addition of the “Sure I Will” component dramatically increased the rate of compliance to first request. Random or variable reinforcers were used with “Sure I Will”. If the child did not comply with first request they missed their chance at the “Sure I Will” reinforcer but a second request still followed. In effect the “Sure I Will” intervention serves as a differential reinforcer of incompatible behavior as saying “Sure I Will” is incompatible with arguing. Although these interventions were effective for this student the authors expressed reservations that they would work with seriously coercive child.

Kehle, et al., (1996) used the precision request technique as an intervention for students with traumatic brain injury. In this study precision request was also used in combination with the “Sure I Will” program. The “Sure I Will” program was chosen in order to teach the students to respond to the teacher’s requests with “Sure I Will” or another equally affirmative response. In this study they found that student compliance rates increased.
A time out ribbon and precision requests were used with a disabled preschool student in a study by Yeager and McLaughlin (1995). The intervention began with use of the time out ribbon. The time out ribbon involved a class contingency based on compliance of the classroom rules. Compliance increased significantly when the use of precision requests was added. They also found that the use of precision requests eliminated don’t requests directed at the student.

As previously discussed in a case study by Cartledge, et al. (2001), precision requests were used with a fifth grade African American male and a Caucasian teacher in an inner city gifted classroom. An individual intervention plan was designed using precision requests with a compliance matrix and reductive hierarchy of consequences. The compliance matrix component involved the use of a Bingo type card where the student draws numbers to fill rows or columns. The matrix was contingent on his compliance to teacher’s requests when she implemented precision requests. The student was advised of the procedure and knew to respond to keywords. The reductive consequences ranged from a verbal warning to a note home explaining the inappropriate behavior. When compliant to the initial teacher request the student drew a number from an envelope for the matrix. When he completed a row on his matrix he received a positive consequence. This intervention had positive but mixed effects. Results may have been clearer if the intervention had been conducted over more time.

**Mystery Motivator**

Rhode et al (1992) described an intervention called the Mystery motivator. This intervention has two key elements, performance feedback and reinforcement uncertainty or intermittent reinforcement. Each day students earn reinforcement they are permitted to
check a monthly or weekly chart that has randomly designated days in which the student receives extra reinforcement. Unknown reinforcers are effective at reducing disruptive behavior (Rhode, et al 1993). The authors’ state that a critical piece of this intervention is the hype the teacher creates for the mysterious reinforcer. Moore, Waguespack, Wickstrom, Witt and Gaydos (1994) used the mystery motivator with third grade students in a rural public school and fifth grade students in a university based lab school. The results were positive with good treatment integrity and acceptability reported. The authors also point out how this intervention can be adapted and include a surprise element of either when the student will be reinforced or what the reinforcer will be.

Robinson and Sheridan (2000) used the mystery motivator to improve child bedtime compliance. Four children ages 5 to 8 years old participated in the study and all showed improvement. Parent and children rated the mystery motivator as an acceptable intervention.

**Gifted minority students**

There is a large amount of scholarly articles available on gifted Caucasian students primarily from middle and upper socioeconomic groups. There is relatively little research on gifted minority students. Existing research on gifted minority students focuses chiefly on barriers to identification (Valencia & Suzuki, 2000; Patton & Baytops, 1995). There are debates about the conceptions and measurement of gifted and the under representation of minority children in gifted programs. The general consensus of available literature calls for using multicomponent assessment strategies, as test scores are not always best particularly for minority students (Valencia & Suzuki, 2000). Some research exists on the need for leadership and social skills development in gifted students.
in general including problems with rejection by peers and low self-esteem. Johnson (2001) refers to these types of skills as an affective component missing in education of the gifted. A case study by Cartledge, et al. (2001), involved social skill training as part of a multicomponent behavior intervention in an urban gifted classroom populated by minority students. In this study, a classwide social skills training program was used resulting in “extremely positive results” (Cartledge et al. (2001) pg 250). There is little research on the behavior of gifted minority students and even less on urban gifted minority students with behavior problems.

**Summary and Current Study**

Based on reviewed research as well as consideration of diversity issues and limited resources in urban settings it seems that a comprehensive group system for classroom use would be an ideal behavior management intervention. The current intervention combines many elements of classwide or a secondary level of PBS. Two forms of functional assessment were used including direct observation to determine behavior problems specific to this class, target students who were most disruptive as well as observe the teacher’s current management style and teacher interview. Systems change was proposed to occur through changes in both discipline style used in the classroom and increasing the predictability for students by explicitly stating consequences of both positive and negative behaviors. Skill instruction included the self-monitoring component where students were in charge of monitoring specific target behaviors following instruction and role-play of behavioral expectations. Finally, behavioral consequences were designed to make problem behavior less efficient. For example, if a student engaged in disruptive behavior for attention a positive consequence
for refraining from such behavior was public recognition by posting of points earned to provide the attention gained previously from the disruptive behavior. In addition, the teacher was trained to issue commands in the form of a Precision request (Rhode et al., 1992), which was hoped to help improve communication between teachers and students.

Behavioral expectations were phrased in a positive manner, were limited in number and clearly posted in the classroom (Goldstein, 1995). Students were directly instructed in expectations for classroom behavior thus minimizing the difficulty of not being aware of school norms and differing cultural values. Additionally, directly instructing students on how to comply with positively worded behavioral expectations students learned expectations for classroom behavior as well as some social skills. Such instruction included role-playing and generation of examples and nonexamples as well as review. In order to gain compliance to the behavioral expectations students were provided with an opportunity to earn tokens for compliance on an interval basis. A token economy provides the students with concrete means to evaluate their own behavior (Myles, et al., 1992).

“Implementing a structured behavior management approach in which predetermined penalties are consistently administered for violations of clearly stated rules is paramount” (McIntyre, 1994, p. 227). A preplanned hierarchy of reductive consequences based on the occurrence of noncompliance to both classroom rules and teacher’s requests was used. If one consequence does not work and the student continues to fail to comply the next step was taken in the hierarchy. Having a preplanned list of consequences allowed the students to know ahead of time what the consequences were for misbehavior and ensured consistency in the application of consequences. The trick is
designing consequences that are both effective and practical (Rhode, et al., 1992). This list included consequences for serious out of control behavior as well as off task or milder forms of disruptive behavior. When losing privileges the student must understand the relationship between the behavior and the privilege lost. A natural or logical consequence was used as often as possible (Goldstein, 1995).

In addition to rules and consequences for violating them it is important to also have positive consequences as well. Students were provided with the opportunity to exchange points earned for compliance for tangible and nontangible reinforcers. The class was surveyed in order to choose salient reinforcers. Students were asked to suggest both things they would like to receive from the teacher as well as favorite classroom activities. Reinforcers were alternated and strengthened to maintain some novelty and to deal with times in the calendar year that are associated with greater behavioral problems, such as around holidays and after breaks from school. It is also important to pair social reinforcers with tangible reinforcers to provide for ongoing reinforcement as tangible reinforcers are faded (Goldstein, 1995). The reward menu was posted in the classroom. In order to further motivate students to behave in accordance with classroom expectations, in addition to the daily tokens, which could be exchanged for small tangible reinforcers, they were eligible for a larger reinforcer for compliant behavior over the course of a week.

It is important in assessing any behavior management system that it is both acceptable to the teacher in terms of the time it takes to implement and if it can be implemented with integrity. In a classwide system, teacher acceptability and treatment integrity will likely be greater if tokens are provided to students for compliance based on
a time interval schedule rather than distributing tokens for each incident of compliance. However, the teacher should be able to provide social reinforcement such as a positive comment or smile more frequently.

It seems few teachers in urban settings are aware of the issues of cultural diversity that are critical to effective management in these classrooms, particularly as they impact communication and expectations for behaviors. Teacher training in the use of Precision requests including review of some basic principles of reinforcement as described earlier will (Rhode, et al., 1992) prevent the use of indirect or veiled commands and make students aware of the need to respond to key words or what impending consequences will follow. In summary, the use of a precision request can be extremely helpful in managing noncompliant behaviors both in and out of the classroom. Precision requests combine the use of many empirically validated compliance-enhancing components of teacher communication. This intervention has been demonstrated to be helpful in working with a diverse group of students and appears effective at overcoming some of the cultural differences in communication that create problems in many classrooms.

A final component that may be effective in an urban setting and that will serve to increase the student’s independence is monitoring his or her own behavior. Students will be given the responsibility to monitor their own compliance to behavioral expectations. Monitoring requires students to think about their own behavior as well as record it. Self-monitoring of one’s behavior is the ultimate goal for these students. An increased ability to monitor behavior will provide the intervention with durable lasting effects they can take with them in the future.
CHAPTER 3

METHOD

This chapter describes the methods of this study. The following sections are discussed: participants, settings, experimenters and observers, training, materials, dependent variables and independent variables, experimental design, observational system, interobserver agreement, procedure and social validity.

Participants

Target Students

The target students were a sample of 6 fourth and fifth grade students between the ages of 9 and 11 years old enrolled in a self-contained gifted classroom. This classroom is a unit of a unique gifted program where students are selected for enrollment based on either teacher recommendation or assessment results that meet criteria specified by the Ohio Department of Education as well as parent application. Students not meeting criteria set forth by the state of Ohio upon acceptance to the program are believed to be eligible for gifted identification based on information provided by a prior teacher, and identification is hoped to occur after placement. All of the students in the classroom were African American. All of the students were from low socioeconomic backgrounds and
qualified for free or reduced cost lunch. Thirteen students were in the classroom. Twelve participated in all of the conditions of the study, but data was only obtained on six. Of the six students three were female and three were male. There was one fourth grade student and two fifth grade students of each gender.

Teacher

There was one Caucasian female teacher with a 12-year history of teaching in suburban, predominantly white, upper class schools in Virginia and Nevada. The classroom teacher was certified in K-8 and was working toward her certification in gifted by taking classes at the Ohio State University.

Selection process

The criteria for selecting target students included (1) teacher's nomination of students who exhibited behavioral problems; (2) T scores greater than 60 on at least one of three clinical scales: conduct problems, hyperactivity or aggression from the teachers' rating on Behavior Assessment System for Children (BASC) Child or Adolescent Form; (3) direct observations that verified teachers' nominations showing that students exhibited a higher than average rate of disruptive behaviors and a lower than average rate of compliant behaviors; and (4) parents' informed consent.

Teacher nomination

The teacher was asked to nominate six students from the class who displayed the most disruptive behavior. She provided the names of five students: three girls and two boys. These nominations were further verified by direct observation and rating scales scores after parents’ informed consent was obtained.
Teacher ratings

In this study, the Behavior Assessment System for Children (BASC) (Reynolds & Kamphaus, 1998) was used as one of the criteria for selecting target students. This instrument was used because of its psychometric properties and it measures behaviors that teachers find disruptive in the classroom. According to the authors, this instrument can be used to help evaluate the behavior and self-perceptions of children aged 2.5 to 18 years. The BASC was designed to facilitate the differential diagnosis and educational classification of a variety of emotional and behavioral disorders of children and to aid in the design of treatment plans. When used individually, the BASC components are reliable and psychometrically sophisticated instruments that provide beneficial data. With its various purposes, it was chosen to meet the criterion for selection of students in this study. Of the three forms of the rating scale (Preschool, Child and Adolescent), the child and adolescent forms will be used to evaluate students’ behaviors. This instrument is standardized and its reliability coefficients ranged from .77 to .95 for the Child and Adolescent Forms.

Specific areas measured by the BASC relevant to the current study include problem behaviors categorized as aggression, conduct problems, and hyperactivity. The externalizing composite was not used as it included the scales attention problems and learning problems, which was not deemed relevant to the current study.

The teacher rated various behaviors as “Almost Always”, “Often”, “Sometimes”, and “Never”. Behaviors were grouped into 14 scales and the ratings within each were compared to the norm group. Ratings in each scale were converted into t-scores, which were then translated into classifications for descriptive purposes. Interpretation was
based on T scores with a mean of 50 and a standard deviation of 10. Two standard deviations above the mean (T greater than or equal to 70) were thought to indicate problem areas. The teacher completed the BASC on a total of 8 students who also had parents' informed consent for participating in this study. Students who received ratings that resulted in T scores greater than 60 were included as possible target students. These students were observed in their classrooms to further verify their eligibility as target students.

**Direct observation**

Direct observations of students’ behaviors were conducted to verify teachers’ nomination and behavior rating as one part of the selection process. The condition that served this purpose was identified as prebaseline, which will be described in the procedure section.

The same observation technique was used in all phases of the intervention. A 20 seconds, observe 5 seconds record-partial interval recording system was used to measure the presence of disruptive or compliant behavior exhibited by target students during 30-minute observation periods that took place during the same period of academic instruction four times a week. This system included trained observers directly observing if disruptive or compliant behaviors were present at any time during the interval. Each targeted student was observed for 20 seconds and their behavior recorded during the 5-second interval. Observations continued by rotating each of the six target students until every targeted student was observed for 12 intervals. The occurrence of any of the
behaviors listed under dependent variable (both disruptive and compliant behaviors) was recorded by marking an X under designated columns on an observation form (see Appendix A for sample observational form).

Compliant behaviors were defined as behavior that satisfies the teacher’s initial request that was initiated within 5 to 10 seconds and was accompanied by appropriate nonverbal behaviors and compliance to classroom rules. A student’s response to the teacher’s request that began after 10 seconds would fall under the disruptive behavior list. A student’s response to the teacher’s request that began within 10 seconds but was accompanied by stomping, eye rolling, etc., would fall under disruptive behavior.

Disruptive behavior was defined as talking or out of seat without permission, touching others, violation of classroom rules, failure to comply with teacher requests within 10 seconds, or off task behavior as evidenced by not facing desk or teacher when requested to do so, or playing with objects. Behaviors were recorded as either compliant or disruptive.

Behaviors observed during prebaseline and baseline observations were also translated into classroom behavioral expectations. For example, students’ being out of their seat appeared to be a significant problem based on observations. A classroom expectation dealt specifically with this by clearly stating that students were expected to stay in their seats unless they had permission to get up.

Parents' informed consent

Parents of the potential target students for this study were contacted with a letter prior to prebaseline (see Appendix B) to obtain written informed consent for their children’s participation. Children were excluded from this study if their parents failed to
complete the written consent. The parents of all target students provided informed consent using the form in Appendix C. Student signatures were obtained on consent forms as well and both parents and students were aware they could withdraw their consent at any time.

Setting

Observational setting

The classroom is located in an urban public elementary school located in central Ohio. The school had an enrollment of 220 students in preschool through fifth grade. The principal of the school reported that the student population was approximately 95% African American the rest of the students are European American. Approximately 85% of the students school wide qualified for free or reduced cost lunch.

The classroom used in this study was rectangular with windows along one wall. Chalkboards line one wall and computers and bookshelves line the opposing wall. Students’ desks were arranged in rows facing the chalkboard. Some student’s desks were isolated in corners or behind the teacher’s desk due to the student’s behavior. The teacher’s desk faced the door and was located off to one side of the room near the windows. The researcher and observers sat in chairs in the front corner of the room near the door. All observations took place at approximately the same time of day following lunch and recess. The students were usually engaged in some sort of language arts activity at this time.
Experimenters and Observers

**Experimenter**

The primary experimenter was a doctoral student in school psychology. The primary experimenter conducted observations, teacher and observer training and monitored the research conditions. As a graduate assistant, the experimenter had been involved in a study similar to this one as a part of a research team. The experimenter has graduate level training and experience in both clinical and school settings using behavioral assessments including observations and implementing behavioral interventions.

**Observers**

There were two observers in addition to the primary experimenter. An associate professor and director of the school psychology program and the primary experimenter’s husband served as secondary observers at different times during the study.

**Training**

**Observer training**

Observers were trained before observations were conducted. The primary experimenter of this study conducted all training. The observers received a one-hour summary session about the purpose of this study, definition of dependent variables, sampling method, and the surrounding of observational settings. The observers initially watched the primary experimenter conduct a few observations (including observational procedure and recording process) and then discussed why the determination on that behavior was made. The primary experimenter answered questions concerning the observational and recording procedure in order to collect accurate data. Following this,
the observer and primary experimenter independently and simultaneously scored the
target behaviors on the recording form. Disagreements were discussed to clarify
examples and nonexamples of the target behaviors. In order to help control for both drift
and bias, observers read the definition of each target behavior prior to observation. Drift
can occur during later stages of investigations when the definition of the dependent
variable only approximates the definition used earlier.

**Teacher training**

Prior to beginning this study, the primary experimenter explained the purpose and
logic of the intervention as well as the procedures of precision requests, positive and
reductive consequences, how to implement the consequences, and the self-monitoring
component. Further procedural training took place at the end of baseline I when
procedures were reviewed again and demonstrated. Questions were answered to ensure
that the teacher understood the whole procedure of this study. During training on
implementing consequences and the principles of reinforcement the teacher did admit to
some previous problems with consistency. Extra time was spent discussing the
importance of immediate and consistent reinforcement. The teacher did have some
difficulty initially in implementing all of the components of the precision request most
notably she failed to make eye contact often and at times was not in close enough
proximity to the student. Daily feedback and examples were provided in the first two
weeks. The teacher made improvements in her implementation of the precision requests.
Meetings continued to be held at least twice weekly throughout the study to review
implementation of the intervention and answer questions. Additionally the researcher was always available to the teacher for questions. Email was also used to answer questions and provide feedback.

**Materials**

*Observation Recording Form*

An observation recording form was used to score each student's behaviors during the observational sessions. A copy of the actual form used is provided in Appendix A.

**Rewards**

Reinforcers for compliant, nondisruptive behaviors were selected during prebaseline after surveying the students and interviewing the teacher. The menu of reinforcers changed frequently to maintain student interest and to help facilitate fading later. Each reinforcer was assigned a point value, which was displayed on a poster in the classroom. The teacher and primary experimenter determined point values. Tangible reinforcers included edibles; small toys and school supply type items. These reinforcers were assigned points based on cash value and student interest. Nontangible reinforcers included activities in the classroom and time with school staff. These items were assigned points based on students perceived interest from the surveys. Mystery Motivator ideas also came from the student surveys and teacher interview but were not posted or made known to the students. A copy of the initial daily reinforcer menu including point values is provided in Appendix D.

**Dependent Variables**

The dependent variable was defined as the frequency of disruptive behavior and compliant behaviors. The disruptive and compliant behaviors selected to be measured
were determined based on an interview conducted with the teacher and classroom observations. During the interview, the teacher indicated that roaming around the classroom and talking without permission were consistent problems that made it difficult to teach her lessons. In fact, making noise in general singing, tapping objects on the desk, slamming books, etc. was a significant source of disruption in the room. Other problems discussed in the interview included students playing with objects such as toys from home and having food or gum in the classroom. These problems had all been observed to be significant during prebaseline observations conducted by the primary experimenter.

**Disruptive behavior**

The following disruptive student behaviors were recorded including: a) failure to follow instructions immediately (within 10 seconds) after they were given, b) talking out of turn, c) making noises, d) not paying attention defined as looking in a direction other than teacher or work on desk, e) touching others, and f) out of seat without permission. Failure to respond to the teacher’s requests after 10 seconds was considered noncompliant and disruptive. If a student complied with the teacher’s request within 10 seconds but that response was accompanied by inappropriate nonverbal behaviors such as eye-rolling, stomping etc., it was considered disruptive. Finally, any behavior that violated the posted behavioral expectations was considered disruptive.

**Compliant behavior**

Compliant behaviors were defined as those behaviors consistent with the posted behavioral expectations or behavior that satisfied the teacher’s initial request that was initiated within 5 to 10 seconds, and was accompanied by appropriate nonverbal behaviors.
The definitions were mutually exclusive such that all intervals were classified as either compliant or disruptive. This type of comprehensive definition was used based on observations of the classroom. In this room if students were non compliant, they were likely disruptive too. In fact, the students seemed to show off for one another. If one student refused to comply other students then refused to comply.

**Experimental Design**

This intervention used an A-B-A-B reversal design. This design involved a repeated measure of behavior during four consecutive phases of the study: (1) a baseline phase in which the intervention was absent, (2) an intervention phase during which the multicomponent intervention was implemented, (3) a second baseline phase in which the intervention components were withdrawn, and (4) a second intervention phase reintroduced the intervention. This design would allow a functional relationship between the intervention and students behavior to be demonstrated.

**Observational and Recording system**

*Treatment Integrity*

As a part of each observation during the intervention phases, a treatment protocol checklist was completed to ensure consistent implementation. The primary experimenter completed a checklist. The independent observer also completed the checklist when present. The treatment integrity protocol used noted whether the teacher was following the steps of the precision request as well as the quality and number of requests made per observation. The protocol also covered the implementation of the consequences. A copy of the treatment integrity protocol is included in Appendix E attached at the end of this draft.
Interobserver agreement

One school psychology associate professor and the primary experimenter’s husband were trained as independent observers to establish interrater reliability of measures administered. For approximately, 30% of the observation sessions distributed evenly across baseline, and intervention phases both an independent observer and principal investigator recorded observed student behaviors. Before initiating baseline observations a rate of .90 interobserver agreement was achieved. Interobserver agreement was defined as a percentage, which is equal to the number of agreements divided, by the number of agreements plus the number of disagreements multiplied by 100.

\[
\text{Agreement} \div \text{Agreement} + \text{Disagreement} \times 100 = \% \text{ of Agreement}
\]

Procedure

Prior to prebaseline students were given letters to take home explaining the purpose of the research and forms requesting the parents’ written consent. These forms and letters were also mailed with self-addressed stamped envelopes in order to facilitate return (Appendix B & C as discussed earlier).

Prebaseline

Prebaseline observations were conducted to determine which behaviors to target for reduction as well as identify those students who were most disruptive in the classroom. Direct observations were conducted in the classroom. Eight to nine randomly selected students were observed to determine which behaviors would be considered in the creation of the behavioral expectations for the classroom. This group of students included those nominated by the teacher for reduction of disruptive behaviors and those identified as more competent peers. A total of 5 observational sessions of the students were
recorded over a two-week period under this condition. All observation procedures followed the previously described observational and recording system and lasted about 40 minutes. Using prebaseline observations, average rates of disruptive behavior were calculated by gender. The average in this class was very high. Out of 12 intervals, an average of 5.24 intervals were rated as disruptive and 6.86 intervals were rated as compliant. Averages were obtained by gender due to boys’ tendency to display more externalizing types of behavior. The male students had an average of 7.04, and the females had an average of 3.36 per twelve intervals rated as disruptive.

With exception of one, all of the teacher nominated students rates of disruptive behavior were confirmed to be higher than average during observations. At this time, the teacher completed a BASC rating on those students with parent permission forms and teacher nomination. Eight students met the selection criteria and were included in the target group for baseline I.

**Baseline**

Data was collected using direct observation during 30-minute observations periods four days a week for three weeks. Baseline data was collected on a total of 8 students including those who met criteria in prebaseline and one teacher nominated female who had not been present for prebaseline due to out of school suspension and one male whose average at prebaseline had been a little below average but the teacher was sure further observations would reveal otherwise. Baseline observations continued for about three weeks or 11 observations. Baseline observations continued to take place during the same period of academic instruction. The independent variable or intervention
components were absent during this period. The teacher continued to use her typical manner of dealing with disruptive student behavior, which seemed to include many reprimands, removal of recess and in school suspension.

At the conclusion of baseline, data was evaluated and a target group of six students was selected. In order to have a group including males and females, the three most disruptive males and females were selected. However, one male student was dropped from the study due to chronic absences and suspensions.

**Intervention**

*Materials for intervention*

Classroom rules or behavioral expectations were clearly displayed on a piece of poster board in the front of the classroom. Additionally both the menu of daily positive reinforcers and hierarchy of negative consequences were displayed on poster board.

For the self-monitoring piece of the intervention each students had a 5 X 8 index card to record their compliant behaviors at 30-minute intervals over the course of a day. Each index card included the student’s name and two columns with yes or no written at the top. Down the side of the columns times were written dividing the school day into 30-minute periods. By the student’s name at the top of the card “Am I following the rules?” was written. Students were instructed to make a mark under the appropriate column at 30-minute intervals. The teacher had her own sheet to record compliant behaviors at the same intervals as well (see Appendix F.)

A dry erase board at the front of the room listed each students name down the left side, across the top of the board the days of the week were written. At the end of each day
the teacher recorded how many points were earned. On this same dry erase board in the
top left corner, a target number was listed weekly indicating how many points the
students must earn to qualify for the Mystery Motivator.

Procedure for intervention

All four components of this intervention were in effect simultaneously.

Precision Request

The teacher was instructed on how to implement the Precision request (Rhode,
Jenson & Reavis, 1992) by the principal investigator. A Precision request was explained
as a specific manner of issuing a request involving key words and consequences.
Instruction included a review of the following as well as a printed copy of the instructions
to be retained for review. The instructions provided to the teacher are included in
Appendix G.

A quiet “Please” request such as, “Please get your materials out and begin working.”
was to be made in a nonquestion format, up close (within 3 feet) with eye contact. The
teacher was then to wait 5-10 seconds after making the request and not interact with the
students during this time. If students started to comply, they were to be verbally
reinforced using the “IFEED-AV rules” (Rhode, et al., 1992, p. 41) of reinforcement.
(IFEED-AV rules refer to an acronym for some general guidelines to follow in applying
consequences- immediately, frequently, enthusiasm, eye contact, describes the behavior
being reinforced, anticipation, and variety.). If students did not comply within 5-10
seconds, a second request was given with a signal word “need”, such as, “Now I need
you to start working.” If students started to comply they were verbally reinforced using
the IFEED-AV rules. If students still did not comply within 5-10 seconds, the teacher
implemented a reductive consequence from a preplanned hierarchy. Reductive consequences refer to mildly punishing consequences either the withdrawal or presentation of a stimulus designed to decrease behavior. After the reductive consequence, the teacher repeated the request using the signal word “need”. If students complied, they were reinforced verbally. If not, the next preplanned consequence from the hierarchy was used.

*Positive and reductive consequences*

Reductive consequences were arranged in a hierarchy for repeated incidents of noncompliance. Ranging from the least reductive consequence to the most, the list was as follows: (a) Loss of one point, (b) Loss of three points (c) Loss of five points, (d) Students were required to wait ten minutes in seat when class is dismissed for recess, (e) Lose 15 minutes of recess time, (f) Lose all of recess, (g) Extra assignment to be completed in lost recess time, (h) In-school suspension, (i) Phone call home to parent, and (j) Trip to principal’s office. The last three consequences were taken from the existing school policies on inappropriate and disruptive behavior.

At first reductive consequences were issued publicly. For some students, this was especially problematic and their behavior would worsen as a result. By the third week, the teacher was letting students know of any loss of points or other reductive consequence discreetly. This generally prevented the behavior from escalating further and allowed the teacher to implement the consequences consistently.

Positive consequences included things like spending 15 minutes playing games on classroom computer, being allowed to spend free time working on something of their choice, allowing the student to eat lunch in the classroom with the teacher or staff, a night without homework, a special job in the classroom as well as an ever changing list of
small tangibles such as gum, pencils, gel pens etc. In order to generate a reinforcer menu of positive consequences, students were surveyed to elicit three things they would like to receive from the teacher and three things in the classroom they would like to do. The responses to this survey were incorporated into the daily menu of available reinforcers and mystery motivators. An example of the menu of available reinforcers is provided in Appendix D. The teacher noted at the onset of the intervention that the students seemed to like the idea of being able to "cash in" points right away in contrast to the previous system.

*Mystery Motivator*

The Mystery Motivator in this study was an unknown reinforcer that the students could earn for compliant behavior over the course of the school week. At the beginning of each week the students were informed of the target number of points needed to be eligible for the Mystery Motivator. Mystery Motivators were larger than those reinforcers available on a daily basis. The identity of the Mystery Motivator was revealed at the end of the week.

A publicly displayed poster indicated how many points students had earned daily. At the end of the week, students who earned a target number of points were eligible for a Mystery Motivator. The first week, 14 points out of a possible 21 were required to qualify for the Mystery Motivator. Due to a short school week, the criteria of 14 allowed the students to miss 2-3 points daily and still qualify. Criteria for the Mystery Motivator was set fairly low in order to ensure that most students earned the reward. The second week 28 out of a possible 43 points were required, again allowing the students to miss 2
to 3 points a day. In the third week things got a little tougher for the kids and they were required to earn 41 out of a possible 51 points, which only allowed them to miss about 2 points daily.

**Behavioral Expectations**

Classroom rules or behavioral expectations derived from baseline observations and teacher interview were posted in the front of the classroom. These expectations included: 1. Follow the teacher’s instructions immediately, 2. Raise your hand when you have a question or comment, 3. Work quietly, 4. Pay Attention, 5. Keep your hands and feet to yourself, 6. Remain in your seat unless you have permission to get up.

Earning points was limited to compliance to classroom rules to avoid students intentionally misbehaving to have the opportunity to comply with specific requests and therefore earn more reinforcers. The classroom rules included a compliance to teacher request rule.

The teacher and primary experimenter explained the Precision request and behavioral expectations to the students as well as consequences to the class before the procedures began. After explaining the precision request procedure to the students, the main points were summarized including review of the target words “please” and “need”. Examples and nonexamples of behavioral expectations were provided. Students were provided opportunities to ask questions and role-play examples. Most questions concerned the self-monitoring card on their desks and how they earned reinforcers.
Once the procedure began, a daily review of behavioral expectations as well as time for questions took place. This piece was faded out over 5 days by reducing the amount of time taken to review as students were expected to remember and internalize classroom behavioral expectations.

**Self-Monitoring**

At the end of each 30-minute interval students rated their behavior in terms of compliance to classroom rules by marking index cards taped to their desks. The teacher marked her own sheet and compared her ratings to those of students twice daily, once before lunch and again at the end of the day. If students’ ratings matched the teachers and they earned points they were eligible to receive a reinforcer from the menu. If students’ ratings did not match teacher ratings the teacher explained to the student the reason for the discrepancy. Any argument at this point caused further loss of points or further reductive consequences. Students were required to cash in their points daily. The running count of points across the week was used to determine eligibility for the Mystery Motivator. The first intervention phase lasted 17 days over four weeks, 13 observations were conducted.

**Baseline #2**

Conditions from baseline 1 were reintroduced. All interventions components were removed. The teacher was instructed to resume her previous way of dealing with disruptive behavior. The second baseline phase lasted only five days due to the rapidly approaching end of the school year. Four observations were conducted.
**Intervention phase #2**

All intervention components resumed for eight days and six observations. Some fading procedures were initiated with the ultimate goal being to transfer control of behavior to naturally occurring stimuli rather than points. It was hoped that fading would prompt students to continue to remain compliant to the teacher’s requests and classroom expectations by providing less and less access to tangible reinforcers. Fading procedures here included inflation by gradually requiring more points to earn daily reinforcers and more points to earn Mystery Motivators.

During this phase, students were also required to monitor their own points. At the beginning of this phase, students were told that the teacher would no longer be keeping track of their points every day. If they failed to keep track of the points themselves then they did not have any to trade in for reinforcers. The teacher was going to keep track of the points only on random days but the students would not know which days.

**Follow up**

At the conclusion of the intervention, the teacher was asked to complete a rating scale of treatment acceptability, which is described below. The teacher also completed another BASC for each of the target students.

**Social Validity**

**Teacher Acceptability**

At the end of the study the teacher was asked to complete a questionnaire to assess satisfaction with the intervention. The questionnaire was adopted from Witt and Martens (1983). Statements regarding the specific intervention components were rated on a 6 point Likert scale which ranged from 1 = strongly disagree to 6 = strongly agree. The
statements addressed whether the interventions were appropriate for the classroom, whether any negative side effects were observed, whether the study was easy to implement and did not require much time, if the intervention could be implemented without any outside supports, whether it will be used again and whether it would be recommended to other teachers. See Appendix H.
CHAPTER 4

RESULTS

Results reported are those on interobserver agreement on student behavior and procedural integrity, intervention effect on student behavior as indicated by both direct observation data and BASC ratings, mystery motivators, self-monitoring and treatment acceptability.

Interobserver Agreement

Interobserver agreement data was collected on students’ rate of disruptive behavior across all four phases of the study as well as on teacher procedural integrity during intervention phases.

Interobserver Agreement on Student Behavior

Interobserver agreement data for student behavior was collected for about 30% of the observation sessions distributed evenly across baseline and intervention phases. An independent observer and principal investigator collected this data independently and simultaneously coded observed student behavior. Interobserver agreement was defined as a percentage, which is equal to the number of agreements divided, by the number of agreements plus the number of disagreements multiplied by 100. The criterion of at least 90% agreement between observer and primary experimenter was reached on all
observations except one in baseline II when an observation yielded 82% agreement. Due to time limitations and extraordinary difficulty locating second observers, this session was not repeated. The average across all phases of the study was 91%.

**Interobserver agreement on teacher procedural integrity**

Interobserver agreement data for teacher procedural integrity was collected for about 30% of the observation sessions during the two intervention phases. Both an independent observer and principal investigator collected this data independently and simultaneously completed a procedural checklist (see Appendix E) developed by the principal investigator. Interobserver agreement on teacher procedural integrity was calculated by comparing checklists completed by the two independent observers and counting the number of steps they had observed the teacher complete divided by the total possible steps multiplied by 100. On all observations of procedural integrity, the percentage interobserver agreement was 100%.

**Direct Observation Data**

Figures 4.1 through 4.6 show the number of intervals in which the target student’s behavior was disruptive across all conditions of the study. Results for individual students are described following the graphs including descriptive statistics and the percentage of nonoverlapping data points. Figures 4.7 through 4.9 show the average number of intervals rated as disruptive across all phases of the study by gender and as a group. Finally Figures 4.10-4.11 show all three male and all three female target students’ averages by intervention phase.

The percentage of nonoverlapping data (PND) is the percentage of data points in the treatment conditions that fall outside of the distribution in the baseline condition. It is
used as a measure of effect size or an index of the magnitude of the obtained result. In this particular case of an attempt to reduce disruptive behavior, this is the percentage of data points that are lower than the lowest baseline value (Scruggs & Mastropieri, 2001). Scruggs and Mastropieri (2001) offer a subjective distinction between PND scores. Scores below 50 are considered ineffective. 50 to 70 are questionable, 70 to 90 are effective with anything over 90 representing a very effective treatment. Some would argue that the PND is overly sensitive to a single outlier data point in the baseline phase, and subtle differences between the baseline and treatment conditions may go undetected (Stage & Quiroz, 1997). However, Scruggs and Mastropieri (2001) argue that the PND has provided a meaningful index of treatment effectiveness in single participant research.

<table>
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<td>12</td>
<td>75%</td>
</tr>
</tbody>
</table>

Table 4.1: Percentage of Nonoverlapping Data Points by Student

* This range reflects the removal of an outlier as explained under Female Student 3 and Male Student 6 section of this chapter.
Figure 4.1: Female student 1. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across females in the classroom.

As illustrated above in Figure 4.1, student one averaged 6.9 incidents of disruptive behavior out a possible 12 intervals per observation session during baseline I. The range of the number of intervals rated as disruptive per session was broad with the lowest being 2 and the highest 11. There was a slight improvement in her behavior during the first intervention phase with an average of 5.22 intervals rated as disruptive. Again the range was broad in the first intervention phase, 1-10. She was absent four of 13 observations during the intervention’s first phase. In baseline II her average increased to 11.33 and she was absent one session of four as she was in PEAK. The range was 2 (10-12). Finally in intervention II she was present half of the time due to suspension that resulted from
something that occurred outside of the classroom. Her average from three days was 1.6 with a range of 4 (0-4). No clear treatment effect can be established, as all but three data points do not overlap with baseline. More time may have helped to clarify any trends. During baseline I and intervention I, this student’s most disruptive days coincided with activities using a protractor to measure angles. There are no other known contextual variables.

![Female Student 2](image)

**Figure 4.2:** Female student 2. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across females in the classroom.

Figure 4.2 above illustrates the results of the intervention for student two. During baseline I student two had an average of 7.67 with a range of 7 (3 – 10) intervals rated as
disruptive. She was absent two out of 11 observations. In the first intervention phase her average dropped to 3, she was absent once out of 13 observations. The range was 7, the same width as baseline but a little lower, (0-7). In the second baseline phase her average increased to 5.5 but later decreased to 1.17 in intervention II. In the second baseline the range of intervals rated as disruptive were a little smaller, 5 (3 – 8). In intervention II the range was even narrower, 0-2. Despite the reduction, treatment effects are questionable as there was overlap between data points in baseline and intervention. She was present every day of the second baseline and intervention phases.

![Figure 4.3: Female student 3. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across females in the classroom.](image-url)
During prebaseline student 3 was absent due to suspension. She was included in the target group based on teacher nomination. She returned to school the second day of the first baseline phase, she exhibited disruptive behavior an average of 9.1 out of a possible 12 intervals per observation session. The range was 10 (1 –11). During the first intervention phase her disruptive behavior decreased to 4.75. The range however during the first intervention phase was similar, 9 (1 –10). An outlier in baseline limits interpretation of the data from intervention. This student’s first day back to school from a lengthy suspension was extremely unusual in that she was disruptive during only one interval. This caused all data points from the first intervention phase to overlap with baseline data. This overlap prohibits the confident conclusion of the presence of treatment effects however acknowledging the outlier it appears that treatment effects were present. She was absent only one of 13 observations in the first intervention phase. In baseline II she was absent two out of four observations however her average did increase to 8. Finally in intervention phase II she was present every day and her average decreased to 2.17. The range was also narrower from 1 to 4. If the outlier of the first baseline phase is ignored then 88% of intervention data points do not overlap with baseline conditions leading to a conclusion of the likely presence of treatment effects for this student. PND scores from 70 to 90 are thought to represent effective treatment (Scruggs & Mastepieri, 2001).
Figure 4.4: Male student 4. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across males in the classroom.

Figure 4.4 above illustrates the results for student 4. In baseline I student 4 was absent three of 11 observations due to suspension related to a conflict that had occurred with another student in the classroom. He obtained an average of 7.88 during baseline I with a range of 8 (4-12). During intervention I he showed a slight decrease and obtained an average of 6.38. The range of 10 (1-11) was higher in intervention I. In baseline II he was present for only one observation due to suspension again this time for an incident that occurred outside of the classroom. The one day he was present he was disruptive during every interval. Finally, in the last intervention phase he was present three of six observations. The range was the smallest of all the phases. The range was a 4 (0-4). His
average decreased significantly to 2.67. There was significant overlap between data from baseline so no treatment effects could be detected. Although this student’s behavior fluctuates widely there are some known contextual variables that coincide with his more extreme days such as field trips and the last day before spring break. Also, according to the classroom teacher this student was inconsistently taking medications for ADHD during the course of this study.

Figure 4.5: Male student 5. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across males in the classroom.
Student five was present all of baseline and obtained an average of 10 intervals rated as disruptive out of a possible 12 per observation. The range during the first baseline was 5 (7-12). During the first intervention phase this student was absent two of the 13 observations. His average decreased significantly to 5.73 yet there was significant overlap with data obtained in baseline. The range in intervention I was higher, 10 (0-10). In baseline II his average decreased further to 4.33. He was absent one of four sessions. The range was 5 (2-7). Finally in intervention II his disruptive behavior continued to decrease with an average of 2.17. The range was again 5 but lower this time (0-5). There were no apparent treatment effects. This student’s disruptive behavior decreased across all phases of the study. There are no clear antecedents to explain this student’s behavior. However, this intervention was somewhat different for this student than the others due to a preexisting behavior contract involving his parents, which kept him from reaching the more severe reductive consequences for his behavior.
Figure 4.6: Male student 6. Number of intervals rated as disruptive per observation session. Dashed horizontal lines indicate average number of disruptive behaviors across males in the classroom.

Student 6 (see Figure 4.6 above) was present for all of baseline with an average of 8.36 intervals rated as disruptive per observation. He had a range of 6 (6-12) during baseline I. He demonstrated a significant decrease during the first intervention phase with an average of 2.6. He was absent three of the 13 observations. It appeared that there may be treatment effects at that time as nine out of 11 data points did not overlap with baseline. The range was 9 (0-9). During baseline II his disruptive behavior increased with an average of 7. An outlier impacts this average. The range for baseline II was 9 (2-11). In intervention II he was present two out of 6 observations due to suspension. His average
was 5 disruptive intervals. His range in intervention II is 4 (3-7). If the outlier in baseline II is overlooked this student’s PND is 75% high enough to indicate the presence of treatment effects. In addition to the outlier, missing data also complicates interpretation of the presence of treatment effects. This student’s two most extreme days involve known antecedents such as field trips and the last day before spring break.

Figures 4.7 and 4.8 show the number of intervals in which the male and female students’ behavior was disruptive across all conditions of the study. Figure 9 illustrates the whole class’ behavior.

Figure 4.7: Average number of intervals in which the target male students’ behavior was rated as disruptive across all conditions of the study.
The average rate of disruptive behavior for the target boys in baseline was 8.83 out of 12 intervals. The average for the male students showed improvement in the first intervention phase over baseline with an average of 5.06. This group of male students included all but one of the males included in baseline I who was dropped due to excessive absences. The boys’ average showed a slight increase to 6.63 when the baseline conditions were reinstated. One of the three boys however, was only present on one observation due to suspension. The average for males, like the female students show improvement in the second intervention phase but only one boy was present for all of this phase. The average for males was 2.82.

As illustrated above the male average number of intervals rated as disruptive did decrease by about 68% over the course of the study. Substantial overlap between baseline and intervention data does not allow the conclusion of treatment effects but it does seem there may have been a reduction in incidents of disruptive behavior.
Figure 4.8: Average number of intervals in which the female target students’ behavior was rated as disruptive across all conditions of the study.

During the first baseline phase the average number of intervals rated as disruptive was 7.9 for the target females. The group of females in the first intervention phase included all but one female student from the baseline group who had been removed in order to include only the three most disruptive females. The average for the three remaining females during the first intervention phase was 4.24. During the second baseline phase the average number of disruptive intervals per observation for female students was 8, almost double the average of the first intervention phase. One of the female students was suspended for half of the second intervention phase. The average number of intervals rated as disruptive for females during this phase was 1.67. This number is a decrease over all previous phases.
The females in this class may have benefited more from the intervention. The above figure shows that the female students demonstrated an 80% reduction in the number of intervals rated as disruptive and their percentage of nonoverlapping data points indicates treatment effects.

![Average Disruptive Behavior for Target Students as a Group](image)

Figure 4.9: Average number of intervals in which the target group’s behavior was rated as disruptive across all conditions of the study.

The target student group’s average number of disruptive intervals both decreased in the first intervention phase. Three of the six students were only present half of the time in the second intervention phase due to suspensions. It appears that the whole group experienced a 74% reduction in the number of intervals rated as disruptive across all phases of the study.
Figure 4.10: Average number of intervals in which the individual target males’ behavior was rated as disruptive across all conditions of the study.

The greatest difference among the male target students’ scores occurred in baseline II. However the average for student 4 in this phase is based on only one observation session. Both students 5 and 6 showed a similar pattern of decreased amount of disruptive behavior during intervention phases. There is no pattern as to the male target students’ relative positions in the amount of disruptive behavior.
Figure 4.11: Average number of intervals in which the individual target females’ behavior was rated as disruptive across all conditions of the study.

The greatest difference among the female students average incidents of disruptive behavior is seen in baseline II similar to the males. All three female students show a pattern of decreased disruptive behavior during intervention. Student 2 always demonstrated the least amount of disruptive behavior except in baseline I. The female students behavior is most similar during intervention II.

**Mystery Motivators**

Mystery Motivators were used in this study in a manner differing from that described by its creators Rhode et al, 1992. In this study all students meeting a predetermined criteria qualified for an unknown, therefore a “mystery” motivator. There
were three Mystery Motivators during the first intervention phase. In the first week of
this phase students had to earn 14 out of a possible 21 points to qualify for the Mystery
Motivator. This allowed students to miss a little more than 3 points per day. With this
criterion all but one student qualified and attended a pizza lunch in the classroom during
the first week. In the second week of this phase students had to earn 28 out of a possible
43 points this allowed them to miss a little more than 3 points a day. At the conclusion of
this week seven students earned 30 extra minutes of outdoor recess on a Friday afternoon.
The last week of the first intervention phase the criteria to earn the Mystery Motivator
became a little tougher the students could miss only 2 points a day on average, they had
to earn 41 out of a possible 51 points. Only five students met the more stringent criteria
and earned a party at lunch in the classroom, which consisted of snacks and soda plus
free time in the classroom.

There were two Mystery Motivators during the second intervention phase. The
two weeks of this phase were short school weeks due to field trips and holidays so each
week provided opportunity for only three observations. In the first week of this phase
students had to earn 34 out of a possible 40 points to qualify for the Mystery Motivator.
This allowed students to miss less than 2 points per day. Six students qualified for the
Mystery Motivator, which was 30 minutes of free time in the classroom. In the second
week of this phase students had to earn 26 out of a possible 29 points this allowed them
to miss only one point a day. At the conclusion of this week six students again qualified
for a pizza party lunch with cookies for dessert.
Self Monitoring

In the first intervention phase the teacher and students kept a daily record of student points. Some students frequently became upset and made a sarcastic or insulting remark when their points were taken for disruptive behavior. However they did not tend to argue when it was time to compare ratings to “cash in” points. In the beginning the students were eager and frequently reminded the teacher that it was time to mark the cards. By the third week some students were failing to mark their cards at all and would ask the teacher how many points they had accumulated. Routine reminders to mark the cards were provided as a result. This was met with complaints from the students about why they needed to mark the cards at all if the teacher was keeping track. Students were told of the future plan to allow them to record their own points independently.

In the second phase of the intervention the students were informed that the teacher would be recording their points only some of the time and they would not know when this was happening. The teacher recorded points on two of four days in the first week of the second intervention phase. This was met with a great deal of objection. The students did not want to be the only one recording their points. At least initially some students disagreed with the teacher about the points they had accumulated and argued forfeiting whatever points they had left. The teacher reported that one female student kicked her chair, which caused it to fall over when she found out she had zero points. The teacher stated the students often blamed her when they had lost points. In the second week many of the students seemed more honest in their assessment of their own behavior. One student who had previously argued commented to the teacher at the end of the day, “Well I lost a point for that hissy fit I had after lunch.”
BASC ratings

The Behavior Assessment System for Children (BASC) (Reynolds & Kamphaus, 1998) was used as one of the criteria for selecting target students. This instrument was used because of its psychometric properties and it measures behaviors that teachers find disruptive. Use of the BASC was hoped to detect any differences in the teacher’s perceptions of the student’s behavior pre and post intervention. Interpretation of the BASC is based on T scores, which have an average of 50 and standard deviation of 10. T scores of 60-69 are described as at-risk indicating either the presence of a significant problem or a potential problem. Scores falling in this range indicate the need for careful monitoring (Reynolds & Kamphaus, 1998). Two standard deviations above the mean or T scores greater than or equal to 70 are described as clinically significant. Scores falling in this range were thought to indicate a high level of maladaptive behavior.

In addition the BASC also offers indices of validity and response set. These indices help assess the quality of the completed rating scale. Among the things measured by these indices were whether there was a tendency for the teacher to be overly negative about the student’s behavior, to check that responses were consistent and that no response patterns were detected. In all student ratings these indices were acceptable indicating the teacher responded truthfully and consistently.

The classroom teacher completed the BASC teacher rating scales child form for each of the target students during baseline and following the completion of the second intervention phase. The teacher rated 148 statements about each student as never, sometimes, often or almost always occurring. This study examined T scores on three clinical scales: aggression, conduct and hyperactivity. The BASC defines aggression as
the “tendency to act in a hostile manner (either verbal or physical) that is threatening to others” (Reynolds & Kamphaus, 1998, p. 48). Conduct problems are defined as “the tendency to engage in antisocial and rule breaking behavior, including destroying property” (p. 48). Finally, hyperactivity is defined in the BASC manual as “the tendency to be overly active, rush through work and activities, and act without thinking” (p. 48).

Student ratings are provided in the table below.

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Table 4.2: Target Students BASC T scores pre and post intervention.

Based on BASC teacher ratings student 1 experienced no significant change in behavior as a result of the intervention. Her T score on Aggression remained clinically significant following the intervention. She continued to earn a T score indicating she is at risk for developing conduct problems post intervention as well. Her T score on hyperactivity was also unchanged. Student 2 experienced no significant change in aggression, conduct or hyperactivity as a result of the intervention. Although not statistically significant her post intervention score on conduct problems is higher. This seems to be in contrast to observation data indicating some improvement in classroom conduct. Teacher ratings for student 3 indicate post intervention improvements on all
three scales. Her scores on the aggression and conduct problem scales fell from clinically significant to the at-risk range. The drop on aggression was statistically significant at the .01 level. Her score on hyperactivity fell from the at-risk range to average. The reductions in behaviors were also seen in direct observation data.

Ratings for student 4 indicate no significant differences between pre and post intervention on any of the three scales. Teacher ratings for student 5 are lower post intervention on the conduct problems scale yet there is no significant difference. There were no significant changes in the ratings on the BASC pre and post intervention for student 6. This seems to contradict improvements in behavior seen during direct observation.

Overall it appears that there were few changes in student behavior pre and post intervention as indicated by the teacher’s BASC ratings. The classroom teacher appears to have been a reliable informant as indicated by validity measures on the BASC, which look for response patterns, inconsistency in responses, and omitted items. As with any behavior checklist however the data provided is subjective.

Treatment Acceptability

The classroom teacher completed a 19-item questionnaire rating statements regarding the intervention as a measure of treatment acceptability. The questionnaire was adapted from Witt and Martens (1983). The teacher felt that this intervention was suitable for her class’ behavior problems and that it would be appropriate for other behavior problems as well. She rated the intervention’s effectiveness a 4 on a scale of 1 strongly disagree to 6 strongly agree. She did comment in follow up discussions however that she felt the children’s behavior had improved but she was not sure it had actually
changed or they were merely responding to the “material” positive consequences. The teacher felt more time was needed to truly see results from the intervention and that she would be willing to use it again. She felt it did not result in any negative side effects or pose any risk to the children. The amount of time for record keeping, out of school time and communication with parents and staff was considered practical by the teacher. The teacher felt it was not difficult to use the intervention and still meet other needs of children. She also felt it was an intervention teachers would likely use because it required little technical skill and little training to implement effectively.

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<tr>
<td>1. Most teachers would find the intervention suitable for the behavior problem.</td>
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<td>2. Most teachers would find this intervention appropriate for other behavior problems as well.</td>
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<td>3. The behavior problem was severe enough to warrant the use of this intervention.</td>
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<td>4. This intervention was effective in changing the children's problem behavior.</td>
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<td>5. This is an acceptable intervention for the children's behavior problem.</td>
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<td>6.</td>
<td>Overall the intervention was beneficial for the children</td>
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<td>7.</td>
<td>I would be willing to use this intervention in my class again.</td>
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<tr>
<td>8.</td>
<td>This intervention would be appropriate for use <em>before</em> making a referral.</td>
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<td>9.</td>
<td>This intervention did not result in negative side effects for the children.</td>
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<td>10.</td>
<td>This intervention did not result in risk to the child.</td>
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<td>11.</td>
<td>This intervention was not considered a &quot;last resort&quot;.</td>
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<td>12.</td>
<td>This intervention was practical in the amount of time required for parent contact.</td>
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<td>This intervention is practical in the amount of time required for record keeping.</td>
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<td>This intervention is practical in the amount of out of school time required for implementation.</td>
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<td>16.</td>
<td>This intervention would be difficult to implement in a classroom with 30 students.</td>
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<td>17.</td>
<td>It was not difficult to use this intervention and still meet other needs of the children in the classroom.</td>
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<td>Teachers will be likely to use this intervention because it requires little training to implement effectively.</td>
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CHAPTER 5

DISCUSSION

This chapter discusses the results of the study, which examined the effects of a multicomponent intervention on disruptive behavior in an urban gifted elementary classroom. The obtained results are discussed in terms of the research questions posed by the study. Limitations of the study, its implications for classroom practice and suggestions for future research are also discussed. Finally the chapter closes with a summary of the current investigation.

Research Questions

1). Does the use of a comprehensive class wide intervention with multiple components reduce disruptive behaviors (e.g. talking out of turn, making noises, out of seat, etc.) and increase student compliance (responding to teacher requests within 10 seconds or obedience of classroom behavioral expectations) as measured by direct observation with a sample of urban students with disruptive behavior problems?

The results of this study demonstrate that the average number of intervals in which students’ behavior was described as disruptive fell with the introduction of the first intervention phase. Students showed a 19 to 68% decrease in behavior during intervals rated as disruptive. When baseline conditions were reintroduced all students but one increased in the number of intervals rated as disruptive. The increases in average number
of intervals rated as disruptive ranged from 68% to 169%. One student’s mean decreased 24%. When the intervention resumed, all students showed a decrease in disruptive behavior. Students showed decreases ranging from 29 to 85%. However, for most students the percentage of nonoverlapping data points is too low to demonstrate treatment effects. One female and one male student did demonstrate treatment effects’ using direct observation data if a single outlier in baseline is ignored. Both students had one observation session that deviated considerably from most of the other scores. It does appear that the intervention had some positive effect on student behavior but the results do not establish treatment effects for most of the students. Interpretation is limited in some cases by missing data due to exclusionary discipline practices. Direct observation data do show reductions in the average incidents of disruptive behavior for all of the target students. Some students may have benefited more than others as seen when individual student records are examined.

There are several possible explanations for the lack of detected treatment effects. Results may have been more favorable if the intervention had been conducted over more time. The number of observation periods can impact the PND (Scruggs & Mastropieri, 2001). Overall, the students’ behavior was variable within every phase of the intervention. Variability is a consistent characteristic of the data. This variability makes it difficult to establish treatment effects and causes concern over the source. The teacher may have been inconsistent in her implementation of the intervention and components. Anecdotal evidence seems to suggest this may have been more of a problem than was detected during observation sessions. During the thirteen prebaseline observations the teacher was never observed to implement her reinforcement system. At times, students
loudly complained that the teacher’s behavior was different when the observer was present. For example, students were overheard commenting to the teacher, “You would not be acting like that if Mrs. S wasn’t here” or “You always act like that when Mrs. S is here, it’s not fair”. Evidence for potential problems with consistency were seen elsewhere as well. During prebaseline observations the teacher’s behavior suggested inconsistent implementation of negative consequences. Some students would be reprimanded for minor infractions, and others were only addressed after repeated incidents of highly disruptive behavior. It seemed at times that the teacher might have felt intimidated or at least overwhelmed by some of the more verbally aggressive students. For example, during an observation a female student became verbally aggressive shouting at the teacher and standing in close proximity and the teacher attempted to back away with her head turned away from the student without addressing the inappropriate behavior.

Another possible reason for the lack of treatment effects is the students’ level of disruptive behavior may have been due to sources unrelated to the intervention. Some of the behavior could have been caused by academic frustration or boredom. There appeared to be a good deal of time that children were not academically engaged which seemed especially problematic for a few students. For example, the disruptive behavior exhibited by the students may have been due to the types of tasks they were engaged in. The impact of the type of activity was especially evident during intervention phase II when changes from independent seatwork to group problem solving activities coincided with a dramatic decrease in the amount of disruptive behavior. Delpit (1995) cites research that concluded that both learning and social styles of African American boys are
better facilitated by classrooms that allow for movement and interaction. Every student but one exhibited at least a 50% decrease in the number of intervals rated as disruptive in the second intervention phase.

The literature indicates that gifted students need to be challenged. Boatman, Davis & Benbow (1995) state that there are three basic educational models in use today for educating gifted students: acceleration, ability grouping and enrichment. According to Vantassel-Baska and Brown (2001) some of the most successful curriculum models are based on acceleration. Acceleration is as the name implies an accelerated pace through the traditional curriculum. Enrichment is basically any activity outside of the regular curriculum that provides a richer and more educational experience. It seemed the teacher might have been using a combination of these models. At times the students were known to participate in enriching activities such as independent research projects, field trips and group problem solving activities. It is possible however, that there was too much reliance on activities associated with the regular curriculum such as independent seatwork. Hunt and Seney (2001) assert that “There is little need for corrective discipline when gifted learners are challenged, engaged in appropriate learning activities, are allowed to assume responsibility for their own learning, and have the freedom to follow their own academic interests” (p. 65).

There may also be some differences in learning style preferences of gifted students due to their culture. Chan (2001) assessed learning styles of gifted and nongifted students in Hong Kong. His findings highlight the difference in learning style preferences between gifted students of different cultures. Teachers need to be especially sensitive to the cultural valuing of independence versus interdependence.
It appears that there may be differences in the way male and female students responded to the intervention. All three females followed a similar course of increases and decreases in the amount of disruptive behavior they displayed. Two of the male students exhibited similar patterns of behavioral increases and decreases. Future research may look more closely at gender differences in response to similar classroom behavioral interventions.

Few studies exist that are similar to the design of this one; fewer still are conducted in urban settings. One of the most similar studies was conducted by DeMartini-Scully, et al., (2000). This study used a similar intervention to the one used here in an urban general education classroom with three 8-year-old females. This intervention was similar except for the use of a multiple baseline design and it lacked student self-monitoring. The authors report a decrease in disruptive behavior but make no report of any measure of treatment effects. Examination of graphs indicates all three student’s behavior appeared to improve. This is similar to the results obtained in the current study that a decrease was seen in the incidents of disruptive behavior yet the decrease was not enough to report treatment effects. Cartledge et al., (2001) used similar intervention components with an individual urban male student from a gifted classroom in the same school a prior year. This intervention used the precision requests and a compliance matrix with preplanned positive and reductive consequences. This project reported positive yet mixed results. Musser, Bray, Kehle, and Jenson (2001) also conducted a similar study using precision requests aimed at reducing disruptive behaviors in three African American students with a serious emotional disturbance (SED). This study contained all of the components of the current study except the self-monitoring.
This study used a multiple baseline design without reversal. They report that there was no overlap between baseline and intervention data points except for one student. Again no treatment effects were reported making comparison difficult but it seems their results may have been better with immediate and substantial decreases in the students’ disruptive behavior.

The results of the current study extend data on using behavioral interventions in urban settings. This study attempted to implement a behavioral intervention that was not only teacher friendly but also “culturally responsive”. The precision request was thought to be able to overcome some communication differences. Explicit instruction on behavioral expectations and use of self-monitoring were expected to help by teaching the students what behavior was expected and cueing them to assess their own actions in terms of these expectations periodically. This study did appear to have some positive effects but it is unclear what is responsible for the change.

There is little data on gifted minority students and less research on interventions aimed at reducing disruptive behavior with these students. This study contributes to the body of empirical studies on gifted minority students.

This study also attempted to provide empirical support for commonly available and used classroom interventions. To date there are very few studies of the effectiveness of precision requests and mystery motivators.

Despite the less than hoped for treatment outcomes, the lack of data on the use of behavioral interventions in urban classrooms with diverse groups of students remains a significant problem. Academic achievement will suffer when disruptive behavior is a problem in the classroom. Disruptive behavior is reported to occur at much higher rates
in urban schools that also demonstrate some of the lowest achievement (Lippman et al., 1996). Cultural differences within these urban schools may complicate the ability to overcome some of the challenges urban schools face. It is imperative that teacher-training programs begin to recognize the need for teachers to have a functional knowledge base of cultures other than their own.

The interventions effectiveness could be strengthened provided there was more time. Beginning the intervention earlier in the year may have resulted in more dramatic effects. By the time this intervention was initiated in March a pattern of behavior and disrespect for the teacher had clearly been established. Students seemed to receive reinforcement from each other for inappropriate behavior. The teacher had established a pattern of inadvertently reinforcing insubordination by withdrawing her commands when students protested. The students clearly did not see the teacher as an authority figure. They openly and frequently disregarded her requests and commands. She did not act with authority often vacillating between disciplinarian and chum. Authority is earned in African American culture. This teacher was likely perceived as weak and ineffective so there was no need to follow her directives (Delpit, 1995). Conversely the teacher had likely formed perceptions and expectations about the students. Rathvon (1999) says that training in interventions or classroom management is most helpful before the teacher has formed expectations for academic and social performance.

Starting earlier in the year would have allowed more time for all of the phases and follow up observations to be conducted. Increased time for each phase may have allowed
for more manipulation of contingencies and to eventually fade tangible reinforcers. Fading and more time may also have impacted the teachers’ perceptions and confidence in the intervention.

However it is likely that the students’ pattern of disruptive and disrespectful behavior extends beyond the current school year. Disruptive behavior for these students may have started as a cultural mismatch in previous years but it is currently maintained by other variables. One possibility is that disruptive behavior that tends to result in suspension allows the student to avoid or escape undesirable tasks.

2). Does change in teacher perception (as measured by the BASC) of students’ disruptive and compliant behavior occur after the use of a comprehensive class wide intervention with multiple components?

The results of this study indicate that the teacher’s perception as measured by the BASC, about students’ behaviors after the use of a comprehensive class wide intervention remained largely unchanged. Only one student’s scores showed significant changes, which were positive. The similarities of pre and post intervention ratings are likely due to the stability of the teacher’s perception of the children. It may take more time for the teacher to make a true cognitive shift that would be reflected in the ratings. The ratings may also be similar due to the BASC being a normative test where the rater compares the child in question to a “typical” child. The ratings may reflect the teacher’s characterization of typical behavior with the frame of reference of her own culture. Hosp & Hosp (2001) point out that one reason for the subjectivity of behavior rating scales is the lack of a common understanding of behaviors or attributes. Interestingly the BASC results seem to be in contrast to those obtained through direct observation data. Although
treatment effects were not detected for most of the target students the observation data do seem to indicate some decrease in disruptive behavior. This is not at all evident from the behavior ratings scales. Direct observation data may be more sensitive to smaller daily changes in behavior.

However, it is possible that when a teacher is asked to rate a disruptive student's behavior after an intervention that the teacher's standard for appropriate classroom behavior remains the student who is significantly less disruptive than the treated student (Stage & Quiroz, 1997). For example, in this particular case the classroom teacher may still have expectations for behavior based on her past experience in affluent predominantly Caucasian classrooms. This would suggest that even though there was a reduction in disruptive behavior the teacher would still indicate that the treated students are still relatively disruptive. More time to conduct the intervention may have led to a cognitive shift for this teacher in what is typical.

In a study similar to the current investigation DeMartini-Scully, et al., (2000) found rating scale data agreed with direct observation data. This is contrary to the findings by Stage & Quiroz (1997) meta-analysis of interventions designed to reduce disruptive behavior in the classroom. They found that studies using teacher-rating scales were associated with significantly less of a decrease in disruptive classroom behavior compared to studies using behavioral observations. The implications of these mixed findings are that any data obtained from behavior ratings scales should be interpreted cautiously. These ratings may merely reflect teacher perception more than actual behavior problems. This may be more exaggerated when cultural differences exist between student and teacher.
3.) Does the comprehensive class wide intervention appear to be acceptable to the teacher?

As a measure of treatment acceptability, a scale adopted from Witt & Martens (1983), was completed by the teacher. Her ratings indicate that she felt the intervention was at least somewhat effective but she was not sure if its effect would last once the tangible reinforcers were removed. She felt the tangible reinforcers motivated the students. Anecdotal evidence suggests that the children did value the tangible reinforcers more than any non-tangible reinforcers offered. The teacher felt other teachers would use the intervention because it required little technical skill and was practical in the amount of time required. She indicated she was willing to use the intervention again. Her rating of only somewhat effective seems to reflect the behavior ratings scales scores, which reflected no significant change except for one student.

Teacher acceptability may be related to treatment integrity. If a teacher believes that an intervention is acceptable they might be more likely to implement an intervention as it was intended. Wickstrom, Jones, LaFleur and Witt (1998) found that treatment acceptability was not related to treatment integrity. In fact treatment integrity varied widely depending on how it was measured.

DeMartini-Scully, et al., (2000) conducted a similar study using their own treatment acceptability scale and found teachers to have a strong satisfaction with the intervention. The teachers felt that the intervention was very effective and was easy to implement. However, Kehle, et al. (2000) review an ongoing line of research using many
of the same intervention components and note in two yet unpublished studies that the precision request component was eliminated based on teacher data collected which indicated that it was too difficult to reliably implement.

Limitations

There are several significant limitations to this study including threats to both internal and external validity.

Internal validity refers to observed differences in the dependent variable (disruptive behavior) being directly related to the independent variable (intervention). In this study a regression threat may be present due to choosing students who were the most disruptive in their pre-intervention behaviors. Additionally there was confounding in the second intervention phase, the teacher was noted to make a change in the type of academic activity going on in the classroom. Earlier in the intervention the students were largely engaged in independent seatwork or following a teacher led discussion about a particular topic. In the last couple of weeks of school the children were engaged in group projects, which required them to converse to solve problems and move about the room more freely. The change in activity may have impacted the reduced amount of disruptive behavior exhibited by the children. This is consistent with literature indicating a need for culturally responsive instructional and management styles (Ellison, Boykin, Towns, & Stokes, 2000; Townsend, 2000). It may have been informative to look more closely at other curricular, instructional variables too.

Threats to external validity include the limited generalization of the results to other students. In this study students in a unique urban gifted and talented classroom were used as subjects. There are potentially two problems with generalization here. One
is that variation exists in how the students are defined as eligible for this program potentially limiting generalization to other gifted urban classrooms. The other is that as these students are labeled gifted it is unclear how similar they are to students in regular education urban classrooms. Generalization is also made limited by the study design further replication would be needed. Another limitation is that there is no observation data from other settings, it is unknown if any effects generalized to another setting. Also there was no follow up data as it was the end of the school year. The use of a multicomponent intervention in this type of study design precludes the ability to detect the separate effects of the intervention components.

Another limitation to this study is the lack of procedural integrity data taken during baseline II. There is only anecdotal evidence to indicate that the teacher refrained from using any of the intervention components during baseline.

There was no control for reactivity to the experimenter’s observation of treatment implementation. It is not known if the integrity of the implementation of the intervention was influenced by the presence of observers. Direct observation data could be impacted if the students changed their behavior due to the presence of an observer. It was hoped at least that multiple observers and consistent observing would provide a control.

A possible limitation of the self-monitoring component of this intervention may be that the students’ perception of their own behavior is not what is being measured. Rather the student’s ability to ascertain the teacher’s perception of their behavior is being measured. This may impact whether students actually internalize the habit of assessing their behaviors in terms of a given set of expectations.
Any intervention program would likely have a better chance to succeed if started earlier in the school year. A significant amount of time was lost before the intervention could be implemented due to the existing channels to obtain permission to do research in this environment. Starting late in the year when negative classroom dynamics between the teacher and students exist presents a significant challenge. Limited time resulted in shortened second baseline and intervention phases. Even if time had allowed for a longer phase, it might not have been the most ethical course of action, as it seemed the teacher was feeling pretty stressed. The teacher pleaded daily to reinstate the intervention during the second baseline phase. During the second baseline, two of the six students were suspended to over half of the observation days. Even with the luxury of unlimited time, data collection would have been impacted by the rate of school suspensions.

Student absences due to suspension were significant in some phases of the study. Most notable were absences in both the second baseline and intervention phases. During the first baseline phase, the teacher was asked to refrain from sending students to in-school suspension. It seems as if teachers in urban settings are somewhat conditioned to rely on removing the student to maintain order in their class (Ishii-Jordan, 2000). Unfortunately, this type of exclusionary discipline practice can be reinforcing for students who escape or avoid work and for the teacher who removes the “problem”. Not only are these practices ineffective but also they may contribute to increasing antisocial and destructive behaviors (Townsend, 2000).
During the second baseline, the physical education teacher who was unaware of the classroom behavior intervention already in place introduced an outside contingency. The teacher told the children she would allow those students who were well behaved in the classroom to help with Field Day.

Finally, the last noted limitation is the expense of this intervention. Pizza parties and even inexpensive tangible reinforcers provided daily to students becomes expensive. The teacher and primary experimenter shared the costs of implementing this intervention. The teacher did not, however, feel that what was spent surpassed what she would have spent on supplies and rewards for the students without the intervention. However, this teacher reported she had previously used tangible reinforcers frequently and may have been accustomed to the expense. Other teachers may not be able to provide the tangible reinforcers and may find that this impacts outcome. Despite literature indicating that elementary children self-reported preferences for social and activity rewards especially in higher grades, this was not found to be the case in this classroom (Christian, 1983; Fantuzzo, Rohrbeck, Hightower & Work, 1991). These children overwhelmingly chose tangibles and edibles over activity rewards.

**Implications for classroom practice**

The results of this study have implications for classroom practice as well as training teachers to work in urban settings with diverse student populations. The children in this study are all academically competent, yet their success may be limited due to incompetent behavior. These results highlight the need to look at the role of ineffective instruction in creating and exacerbating behavior problems. Teachers experiencing behavior problems in classrooms with diverse students may be advised to consider the
types of activities in the classroom that seem most problematic. In this study, it seemed that heavy reliance on independent seatwork might have exacerbated problems. Additionally there appeared to be too much time in which students were not academically engaged.

During this study the method of delivering reductive consequences was changed to a more private format where the teacher would speak quietly with the individual student. O’Leary, Kaufman, Kass and Drabman (1970) examined the impact of loud and soft reprimands. Soft reprimands resulted in a decreased frequency of disruptive behavior and offered other advantages. The use of soft reprimands does not single out the child so his disruptive behavior is made noticeable to other students. This is especially important considering that many behaviors are maintained by attention (Rathvon, 1999), as appeared to be the case for some of the students in this particular classroom.

These results also have implications for training teachers. Not only do teachers need to have a functional cultural knowledge base as well as expectations, but also training in and experience with the effective use positive, proactive classroom management. Most teachers’ preservice work is in a classroom with established behavior management techniques in place (Rathvon, 1999). Teachers must understand the importance of consistent, immediate, and frequent reinforcement in order to effectively manage classrooms. Interventions will not be effective without trained implementers.

This study also highlights important considerations for school psychologists or other professionals that conduct behavioral consultations. Noelle, Duhon, Gatti and Connell (2002) point out that in the school psychologist’s role of consultant, the effectiveness of the interventions are dependent on the teacher’s implementation. The
teachers’ ability to carry out interventions and achieve positive results is especially relevant in light of the IDEA reauthorization that emphasizes outcome based programming. Most teachers’ preparation is “to a large degree focused on minimum entry level competency” Brown, Pryzwansky, & Schulte, 1998, p.249). Planning and carrying out interventions effectively represents a paradigm shift for most teachers. Teachers are not trained to implement interventions. Further many have been conditioned to remove students exhibiting disruptive behavior from the room.

This interventions outcome emphasizes the need to train teachers to carry out interventions. School psychologists should conduct in-service trainings on problem solving techniques, effective use of reinforcement, proactive classroom management techniques, etc. School psychologists should also advocate for a school wide system of positive behavior supports that views student problems from an ecological perspective, which considers a student’s culture. It shifts the focus from the deficit model of the student.

**Suggestions for future research**

This study has just barely scratched the surface on important issues of classroom management in multicultural urban settings.

In light of the limitations of this study there are numerous ways to improve in future research. Future research may also benefit from increasing training time for both teacher and students. Specifically more time reviewing the behavioral expectations may have helped students internalize these expectations and more time training the teacher may have allowed for more effective use of the precision requests and consequences. It would likely be beneficial to include a social skills training component to train students
more thoroughly in what behaviors are expected. The self-monitoring component may be more effective if students’ accurate ratings earned reinforcers rather than punishing consequences for not matching teachers’ ratings.

More research is needed on gifted minority youths. Literature on gifted minority students is very sparse and in general limited to issues of problems in identification. These students may possess some unique characteristics that have an impact on classroom management styles. This population is truly the “neglected of the neglected” (Valencia & Suzuki, 2001, p.209).

Future research could replicate this study using interdependent or dependent group contingencies in order for students to earn reinforcement. Kehle, et al. (2000) suggests that different group contingencies may produce different outcomes for interventions designed to decrease disruptive behavior. This study could also be replicated in a classroom in which both student and teacher were non-Caucasian.

Summary

To summarize this study examined whether a multicomponent intervention would be helpful in reducing disruptive and increasing compliant behavior in an urban classroom. The results indicate treatment effects were detected through direct observation data for two students. There were sizable reductions in the average number of intervals rated as disruptive for most students. Similar studies have not reported measures of treatment effects although it seems the results have been positive. Behavior ratings scale data indicate no real change in teacher perception. Treatment acceptability scale ratings were generally positive indicating the teacher would use the intervention again.
Although the present study has its limitations, it underscores the need for training teachers to conduct interventions and teach in diverse settings. It also highlights the over reliance on exclusionary discipline practices in urban schools. Significant behavior problems exist in many urban classrooms. Disruptive behavior in the classroom inhibits effective teaching and learning. This paper’s findings challenge the notion that the students are deficient or bad. Rather an ecological approach to problem solving should be adopted. Effective behavior interventions tailored to reflect the diversity and adversity that comes in many urban schools could be the first real step towards improving academic achievement in these schools.
LIST OF REFERENCES


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APPENDIX A

Observation Record Form

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February, 2003

Dear Parent:

I am a professor in the college of education at The Ohio State University. My doctoral student, Julie Sentelle, and I will be conducting a research project in your child’s school. We wish to see if the use of publicly posted behavioral expectations, a specific format for the teacher to issue requests, a system of positive and reductive consequences and the use of self-monitoring will bring about improvements in classroom behavior. Behavioral expectations refer to a set of statements that set forth what is expected of the students in the classroom, i.e. keep hands and feet to yourself. The specific format for issuing teacher requests is also known as Precision requests, this technique requires the teacher to issue commands in a direct manner using key words such as “Please” or “Need”, the students are aware that upon hearing these key words they need to begin to comply within 10 seconds to earn points. Classroom points can be accumulated and exchanged for special privileges such as extra computer time, good notes home to mom and dad, etc. Classroom points can also be lost for not following teacher’s requests. If students have no points to lose their failure to follow teacher requests may result in consequences such as a call home to mom and dad to discuss their classroom behavior. Students will be asked to monitor their own behavior by marking an index card on their desk as to whether or not they followed the rules and teacher directions within a given time period.

We hope these strategies will reduce the need for disciplinary actions by the teacher and increase time spent learning academic material. Your child’s classroom teacher will apply all of these procedures as a part of regular classroom activities. All of the children in the classroom will be observed but we will not use the observations for research purposes without your consent. Your child will not be removed from the classroom and will not lose any academic instructional time. In fact, we anticipate that these strategies will serve to increase the amount of time your child spends on academic tasks each day.

Data collected on your child will include recording of incidents of disruptive and compliant behaviors. Additionally at both the beginning and end of this project the classroom teacher will be asked to complete a behavior checklist. All information
collected about your child will be confidential. No one other than the researchers will use this information and your child will not be identified in any way to others.

We are requesting your permission so that we might use your child’s classroom performance as data in this study. Permission is purely voluntary and the decision not to permit this access will not affect the way your child will be treated or graded at school. Should you consent, please know that you can withdraw your permission at any time during this project. If you have questions, please feel free to contact me at 292-5909. Thank you for your attention and cooperation.

Sincerely,

Antoinette Miranda, Ph.D.
Associate Professor and Director
School Psychology Program
356 Arps Hall
1945 N. High St.
Columbus, Ohio 43210
(614) 292-5909

Julie Sentelle
School Psychology Doctoral Student
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH

Protocol title: A Culturally Sensitive Behavior Intervention for an Urban Classroom
Protocol number: 2003B0052
Principal Investigator: Antoinette Miranda, PhD

I consent to my participation in (or my child’s participation in) research being conducted by Dr. Antoinette Miranda of The Ohio State University and his/her assistants and associates.

The investigator(s) has explained the purpose of the study, the procedures that will be followed, and the amount of time it will take. I understand the possible benefits, if any, of my participation (and/or my child’s participation).

I know that I can (and/or my child can) choose not to participate without penalty to me (and/or my child). If I agree to participate, I can (and/or my child can) withdraw from the study at any time, and there will be no penalty.

I have had a chance to ask questions and to obtain answers to my questions. I can contact the investigators at (614) 292-5909. If I have questions about my rights as a research participant, I can call the Office of Research Risks Protection at (614) 688-4792.

I have read this form or I have had it read to me. I sign it freely and voluntarily. A copy has been given to me.

Print the name of the participant:

____________________________________________________

Date: ___________________________Signed: _______________________________________

(Participant)

Signed: ____________________________________________

(Principal Investigator or his/her authorized representative)

Signed: ____________________________________________

(Person authorized to consent for participant, if required)

Witness: ____________________________________________

(When required)
### APPENDIX D

Positive Consequences – Reinforcer Menu

<table>
<thead>
<tr>
<th>Item</th>
<th>Points</th>
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<tbody>
<tr>
<td>Pencil</td>
<td>2</td>
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<td>Eraser</td>
<td>3</td>
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<td>Highlighter</td>
<td>4</td>
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<tr>
<td>Daisy Ring</td>
<td>3</td>
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<tr>
<td>Candy Stampers</td>
<td>4</td>
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<tr>
<td>Nail Polish</td>
<td>5</td>
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<tr>
<td>Candy Bars</td>
<td>4</td>
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<tr>
<td>Blow Pops</td>
<td>2</td>
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<tr>
<td>Catching Game</td>
<td>8</td>
</tr>
<tr>
<td>Gel Pen</td>
<td>5</td>
</tr>
<tr>
<td>Bubbles</td>
<td>8</td>
</tr>
<tr>
<td>Calculator</td>
<td>9</td>
</tr>
<tr>
<td>Address Book</td>
<td>9</td>
</tr>
<tr>
<td>Doodle Pads</td>
<td>9</td>
</tr>
<tr>
<td>Colored pencils</td>
<td>10</td>
</tr>
<tr>
<td>Marker Sets</td>
<td>10</td>
</tr>
<tr>
<td>Gel Pen Notebook</td>
<td>11</td>
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<tr>
<td>Fifteen minutes Computer Time</td>
<td>6</td>
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<tr>
<td>Fifteen minutes Art Time</td>
<td>4</td>
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<tr>
<td>No Homework Pass</td>
<td>9</td>
</tr>
<tr>
<td>Eat Lunch in Classroom</td>
<td>7</td>
</tr>
<tr>
<td>Free Time- fifteen minutes</td>
<td>5</td>
</tr>
<tr>
<td>Eat Lunch with teacher or staff</td>
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</tbody>
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APPENDIX E

Treatment Integrity Protocol

Observer’s name: ________________________________

Date and time: ___________________________________

Behavioral Expectations are posted. _________

Precision Request
  Command in statement form _________
  Firm but quiet tone of voice _________
  Eye contact with student _________
  Distance from student (approx 3 ft) _________
  First request key word “PLEASE” _________
  Waits 5-10 seconds, reinforces _________
  Second request “NEED” _________
  Waits 5-10 seconds, reinforces _________
  Reductive consequence from hierarchy _________
  Number of requests made _________
  Integrity of requests across students _________
  Quality of requests _________ (high or low)

Token Economy- prize for compliance to rules/requests _________

Response Cost –lose prize for noncompliance _________
APPENDIX F

Teacher Behavior Recording Form

<table>
<thead>
<tr>
<th>DATE</th>
<th>9:30</th>
<th>10:00</th>
<th>10:30</th>
<th>11:00</th>
<th>11:30</th>
<th>12:00</th>
<th>12:30</th>
<th>2:00</th>
<th>2:30</th>
<th>3:00</th>
<th>3:30</th>
<th># intervals in agreement</th>
<th>Argue?</th>
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<tbody>
<tr>
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Please place check in box above if student was compliant for the designated interval.

At end of day please note the number of intervals in agreement with student ratings and whether the student argued.

Remember disruptive behavior is defined as talking out of turn, out of seat without permission, making noise, not paying attention as evidenced by looking in direction other than teacher or work on desk, touching others, violating any posted behavior expectations or not complying with teachers request within 10 seconds or complying with inappropriate nonverbal behaviors such as eye rolling, stomping feet, etc.
APPENDIX G

Teacher Instruction for Precision Request

- A quiet “Please” request such as “Please get your materials out and begin working.” is to be made in a nonquestion format, up close (within 3 feet) with eye contact.
- Wait 5-10 seconds after making the request and do not interact with the students during this time.
- If students start to comply they are to be verbally reinforced using the “IFEED-AV rules” (Rhode, et al., 1992, p. 41) of reinforcement. (IFEED-AV rules refer to an acronym for some general guidelines to follow in applying consequences—immediately, frequently, enthusiasm, eye contact, describes the behavior being reinforced, anticipation, and variety.).
- If students do not comply within 5-10 seconds, a second request is to be given with a signal word “need”, such as, “Now I need you to start working.” If students start to comply verbally reinforce using the IFEED-AV rules.
- If students still do not comply within 5-10 seconds implement a reductive consequence from a preplanned hierarchy.
• After the reductive consequence repeat the request using the signal word “need”.

If students comply they should be reinforced verbally. If not, the next preplanned consequence from the hierarchy should be used.
APPENDIX H

Teacher Acceptability Ratings


1 = strongly disagree to 6 = strongly agree

1. Most teachers would find the intervention suitable for the behavior problem.

2. Most teachers would find this intervention appropriate for other behavior problems as well.

3. The behavior problem was severe enough to warrant the use of this intervention.

4. This intervention was effective in changing the children's problem behavior.

5. This is an acceptable intervention for the children's behavior problem.

6. Overall the intervention was beneficial for the children.

7. I would be willing to use this intervention in my class again.

8. This intervention would be appropriate for use before making a referral.

9. This intervention did not result in negative side effects for the children.

10. This intervention did not result in risk to the child.

11. This intervention was not considered a "last resort".

12. This intervention was practical in the amount of time required for parent contact.
13. This intervention is practical in the amount of time required for contact with school staff.

14. This intervention is practical in the amount of time required for record keeping.

15. This intervention is practical in the amount of out of school time required for implementation.

16. This intervention would be difficult to implement in a classroom with 30 students.

17. It was not difficult to use this intervention and still meet other needs of the children in the classroom.

18. Teachers will be likely to use this intervention because it requires little technical skill.

19. Teachers will be likely to use this intervention because it requires little training to implement effectively.