

## ABSTRACT

Title of Dissertation: AN EXAMINATION OF TREATMENT INTEGRITY  
PRACTICES AND BEHAVIORAL OUTCOMES WHEN  
UTILIZING THE SECOND STEP CURRICULUM

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School violence is a major problem in urban schools requiring intensive preventative and intervention practices. Social skills training programs can help teach students the nonverbal and verbal behaviors used in interactions with others that can lead to positive social outcomes (Korinek & Popp, 1997). However, very little research has addressed the degree to which a social skills training program was implemented with integrity. Similarly, little is known about the acceptability of many widely used social skills training programs. This study will contribute to the research base of social skills training by increasing the knowledge base for the treatment acceptability of and treatment

integrity practices utilized when teaching the *Second Step: A Violence Prevention Curriculum* (Committee for Children, 1992).

This case study utilized a qualitative approach to evaluate teachers' perceived and actual implementation practices, level of treatment integrity and treatment acceptability when utilizing Second Step. Classroom observations of implementation of critical lesson components revealed that most teachers implemented second step with low levels of integrity. Focus groups conducted with teachers revealed moderate to strong levels of acceptability for Second Step. Teachers were generally aware of the lesson components that they did not implement, but generally tended to over emphasize their use of other lesson components (e.g., role plays). Difficulties with program implementation included the lack of sufficient time to implement the program and relevance of some of the lesson particularly with English language learners. Teacher acceptance was both positively and negatively related to treatment integrity levels.



AN EXAMINATION OF TREATMENT INTEGRITY PRACTICES  
AND BEHAVIORAL OUTCOMES WHEN UTILIZING  
THE SECOND STEP CURRICULUM

by

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## TABLE OF CONTENTS

List of Tables.....	vii
List of Figures.....	viii
Chapter I: Introduction.....	1
Statement of Problem.....	7
Purpose of Study.....	7
Definition of Terms.....	9
Chapter II: Review of Literature.....	11
Introduction.....	11
Theories of Violence.....	12
Psychological Influences.....	12
School Characteristics .....	14
Familial Factors .....	16
Environmental Factors .....	20
Family's Socioeconomic Status .....	25
Summary .....	29
Social Skills Training .....	29
What Are Social Skills Training Programs? .....	29
Why the Need for Social Skills Training? .....	31
Decrease in School Violence .....	31
Improve Peer Relations .....	33
Academic Achievement .....	34
Theoretical Development of Social Skills Training Programs: The Social Learning Theory .....	37
Framework for Effective Social Skills Training Programs .....	42
Key Variables for Implementation Success .....	42
Key Social Skills Teaching Variables .....	43
Key Social Skills Curriculum Lesson Areas .....	44
Widely Used Social Skills Training Programs .....	45
Research on Social Skills Training Programs .....	47
Limitations of Studies Examining Social Skills Training Programs .....	55
Treatment Integrity .....	58
Increasing Treatment Adherence .....	74
Treatment Acceptability .....	77
Research on Treatment Acceptability.....	78
Variables That Facilitate Treatment Acceptability .....	81
Second Step: A Violence Prevention Curriculum .....	83
Research on Second Step .....	87
Limitations of the Second Step Research .....	89
Summary .....	90

	v
Chapter III: Methodology .....	92
Chapter Summary .....	92
Design Overview .....	92
Purpose of Research .....	92
Research Design .....	93
Program Description .....	95
Setting of the Case Study .....	96
General Characteristics of the Study Population .....	97
Sampling .....	103
Measures .....	105
Classroom Observations .....	105
Teacher Focus Groups .....	107
Key Informant Interviews .....	108
Office Referrals and Suspension Records .....	108
Procedures .....	111
Piloting of Research Measures .....	111
Training Research Assistants .....	113
Teacher Focus Groups .....	113
Classroom Observations .....	114
Key Informant Interviews .....	115
Office Referrals and Suspension Records .....	116
Data Analysis .....	116
Chapter IV: Results .....	119
Chapter Summary .....	119
What are Teachers' Perceived Implementation Practices When Teaching the Second Step curriculum? .....	120
Teachers Access to His or Her Own Kit .....	120
Frequency With Which the Second Step Curriculum Was Taught .....	121
Amount of Time Used to Teach the Lessons .....	122
Followed the Scope and Sequence of the Curriculum .....	123
Showed the Lesson to the Class .....	124
Use of Discussion Cues .....	126
Allowed Opportunities for Role Plays .....	127
Used the Suggested Activities .....	129
Sent Letters Home .....	129
Completed Teaching the Entire Curriculum .....	129
Manner and Degree to Which the School District Second Step Consultants Were Utilized in Supporting Program Implementation.....	130
Methods Used for Encouraging Generalization .....	132
Degree and Type of Support from School's Administrator for Implementing Second Step .....	137
Problems Experienced With the Implementation of Second Step .....	139
Time .....	139

	vi
Pace of Lesson .....	140
Relevance of Lessons .....	141
Language .....	142
Materials .....	142
Teacher Turnover .....	143
To What Degree is Second Step Implemented With Integrity? .....	143
What Are Teachers' Perceptions of the Second Step Program? .....	154
Suggested Modifications .....	158
What is the Degree of Behavioral Change Obtained for Students Having Participated in the Second Step Curriculum, as Measured by Office Referrals and Suspension Data?.....	161
Chapter V: Summary .....	166
Summary and Integration of Findings .....	166
What Are Teachers' Perceived Implementation Practices When Teaching the Second Step Curriculum?.....	167
To What Degree Is Second Step Implemented With Integrity? .....	168
What Are Teachers' Perceptions of the Second Step Program? .....	171
What is the Degree of Behavioral Change Obtained for Students Having Participated in the Second Step Curriculum .....	173
Discussion .....	174
Treatment Integrity Levels with Second Step .....	174
Teachers' Acceptance of Second Step .....	176
Outcomes .....	178
Limitations of the Study .....	178
Implications for Practice .....	180
Future Directions .....	183
Appendixes	
A. Overview of the Second Step Curriculum .....	185
B. Initial Classroom Observation Checklist .....	191
C. Classroom Observation .....	194
D. Teacher Focus Group Protocol .....	197
E. Principal Interview Protocol .....	200
F. Consent Forms for Teachers .....	203
G. Consent Form for Parents .....	206
H. Consent Forms for Principals .....	208
References .....	211

## LIST OF TABLES

1.	Selected Crime Statistics Around the School Neighborhoods from July 1, 2002 to July 1, 2003	97
2.	Neighborhood Characteristics of Coble School and Lewis School in 2002	98
3.	Student Ethnicity/Race of Coble School 2002-2003	99
4.	Student Ethnicity/Race of Lewis School 2002-2003	102
5.	Teacher Participants, Grade Taught and Number of Years Teaching	104
6.	Research Questions and Measures	106
7.	Percentage for Teachers' Implementation of Seven Second Step Lesson Areas	145
8.	Lesson Area Implementation Percentages For Coble School and Lewis School	152
9.	Time Utilized Per Lesson Presentation For Teachers at Coble School and Lewis School	153
10.	Student Suspensions for Coble School Across Three Years	162
11.	Student Suspensions for Lewis School Across Three Years	162
12.	Total Instance of All Referrals and Fighting Only Office Referrals at Coble School Across Three Years	164
13.	School Wide and Fighting Only Office Referrals at Lewis School Across Three Years	164
14.	Difference in Percentage Rates for School Wide Referrals At Coble School and Lewis School Across Three Years	165
15.	Difference in Percentage Rates for Fighting Only Referrals at Coble School and Lewis School Across Three Years	165

## LIST OF FIGURES

1. Average Number of Reported Minutes of Implementation Time Per Second  
Step Lesson For Coble School 122
  
2. Average Number of Reported Minutes of Implementation Time Per Second  
Step Lesson For Lewis School 123

## CHAPTER I

### Introduction

Schools are frequently required to respond to school violence. The massive school shootings in Columbine, Colorado and Paducah, Kentucky catapulted school violence to the forefront of the nation's attention, given the amount of media coverage each school shooting received. While the type of school violence that occurred in Paducah and Columbine are not every day occurrences (Dupper & Meyer-Adams, 2002), most schools deal with some form of school violence on a daily basis. School violence can take the form of passive acts of aggression such as posturing (e.g., positioning one's body so as to look menacing or threatening to others) as well as active acts such as bullying and fighting. Sexual harassment, victimization based on known or presumed sexual orientation, and maltreatment of students by teachers are also various forms of violence that are regular occurrences at many secondary schools.

School violence requires preventative measures to be taken given the impact it can have on the school as well as for those students targeted. School violence has been linked to negative outcomes such as increased drop out rates, a loss of self-esteem and feelings of isolation (Hazler, 1994 as cited by Dupper & Meyers-Adams, 2002). School violence that occurs as a result of prejudicial or racist thinking may lead to negative outcomes including increases in the number of hate crimes, poor academic performance and high dropout rates among ethnic minorities (Kiang & Kaplan, 1994). Interventions that target offenders and curtails future acts of aggression and violence may lead to remediation of school violence.

One of the ways educators have sought to establish safe schools is by implementing interventions designed to teach students prosocial skills. According to Korinek and Popp (1997), social skills or social competence can be defined as the nonverbal and verbal behaviors used in interactions with other students and/or adults that lead to positive social outcomes. Prosocial skills may include such behaviors as self-awareness, self-regulation of one's own feelings, cooperation, empathy, and impulse control (Woitaszewski, Aalsma, & Gridley, 1998). Prosocial skills are important for a variety of reasons. First, they aid in a child's social success or the ability to "elicit rewarding interactions and avoid punishing interpersonal experiences" (Bierman, 1988, p. 247). Prosocial skills also increase the likelihood of peer acceptance and popularity, which in turn can increase a student's likelihood of making friends (Asher, Parker, & Walker, 1997). Prosocial skills have also been linked with academic achievement and with influencing the judgments and behaviors of other individuals (e.g., teachers). Additionally, the more positive experiences children have with those around them, the more likely they are to experience a healthy self-concept (Bierman, 1988).

Students who do not possess adequate social skills are more likely to suffer a host of negative consequences. For example, poor social skills transcend school difficulties as negative behaviors in students have been correlated with future problems in the areas of mental health, conduct disorders, and deficient social performance (Pepler, King & Byrd, 1991). Students who are aggressive or who lack proper social skills are frequently rejected and neglected by their peers (Goldstein, 1989). Aggressive students who are also rejected by their peers are more likely to drop out of school or become delinquent than their non-aggressive-rejected peers. As Coie and Koepple (1990) stated, "Without

intervention, rejected children often continue being rejected in their ongoing school peer groups” (p. 309). It is therefore important to teach students positive ways of relating to each other not only to foster positive peer relations, but also to decrease school violence.

Ladd and Mize (1983) and Elias and Clabby (1992) provide frameworks of key variables that should be included in social skills training curriculums and in the teaching of social skills. Key lesson variables include enhancing skill concepts, promoting skill performance, and fostering skill maintenance/generalization (Ladd & Mize, 1983). Three teaching phases in which social problem solving can be taught include teaching self-control, social awareness and group participation, and social decision-making and problem-solving skills (Elias & Clabby, 1992). Elias and Bracken (1988) highlight the utility of Ladd and Mize’s (1983) framework for evaluating social skills training programs.

There are several key intervention components that must be in place in order to encourage the success of an intervention. Key implementation variables include support from project directors, school principals, implementation support from teachers, training and a relevant curriculum (Fagan & Milhalic, 2003). Key social skills training program variables include aspects from the social learning theory (Bandura, 1986) including modeling or demonstration of a new social skill, opportunity for the students to perform or rehearse their new skill, and feedback from the teacher or program implementer regarding the student’s performance (Goldstein, 1985).

One key element related to the successful implementation of a social skills training program is the degree to which a treatment is accepted by the implementer. Witt and Elliott (1985) defined treatment acceptability as “judgments from treatment



consumers pertaining to whether or not they like the treatment procedures, or effects” (p. 254). These subjective and objective judgments often reflect the interventionist’s satisfaction with an intervention.

Examining treatment acceptability is critical for intervention selection and planning. According to Witt and Elliott (1985), treatment acceptability must be examined given the legal and ethical concerns that some interventions might raise. The authors indicated that while some intervention practices may have empirical evidence for their effectiveness (e.g., time-outs), the procedures for implementing the intervention may not be acceptable by either the consumers or by the interventionist (e.g., using a large refrigerator box for the time-out area). Second, assessing treatment acceptability increases the likelihood for the use of the intervention and for the intervention to be implemented with integrity. Finally, Cowen and Sheridan (2003) provided another reason for the importance of examining treatment acceptability. These authors commented that assessing the degree to which parents, children and educators find certain behavioral interventions acceptable may help interventionists “predict conditions under which interventions may not be accepted and implemented with integrity (e.g., if the intervention is too complex), allowing them to prepare proactively for such conditions” (p. 3).

Witt and Elliott (1985) provided a theoretical conceptualization of treatment acceptability. The authors theorized that there is a four-concept relationship that exists between treatment acceptability, use, integrity and effectiveness. They viewed acceptability as the initial issue that encourages treatment selection. Once a treatment is viewed as acceptable for a given population and setting, it may have a greater chance of

being implemented with integrity. Treatments that are used with integrity then have a greater likelihood of being effective. In turn, effective treatments help to generate further positive perceptions of a treatment.

Another important variable related to intervention implementation is treatment integrity. Treatment integrity is defined as the implementation of an intervention in the manner in which it was intended (Gresham, 1989). There are many reasons for examining treatment integrity. First, by studying treatment integrity, an awareness of factors needed to successfully implement an intervention can occur (Fagan & Spath, 2003). Some of these variables may include support from administrative staff and/or appropriate materials needed needed to implement the intervention in the manner that it was prescribed. For example, in a study conducted by Fagan and Spath (2003), a process evaluation of implementation of the Life Skills Training program was conducted. The study was a process evaluation, as the researchers were interested in the process of implementing an intervention. The intervention chosen for this study was the Life Skills Training Program (LST). The LST Program is a school-based program used with middle school students for the purposes of prevention of tobacco, alcohol and other drug use. The researchers examined the level of treatment integrity, identified the problems encountered during implementation and worked with schools to address implementation difficulties. Local coordinators, regular classroom observations and teacher training workshops were utilized to ensure high levels of treatment implementation. Fagan and Spath (2003) observed several factors related to treatment integrity including support and enthusiasm from site coordinators, school administrators and the teachers for the program. Obstacles that prevented high levels of treatment integrity included lack of

teacher attendance at the training workshops, high teacher turnover rate, problems integrating the program with the core curriculum, and deviations made by the teachers to the curriculum content during instruction.

Another reason for the significance of treatment integrity is that high levels of treatment integrity reduce threats to the validity of the results (Spath et al., 2002). Spath et al. (2002) noted when teachers fail to implement an intervention with integrity and the intervention outcome demonstrates a lack of behavioral change on the part of the student(s), a misattribution of the failure may be made to the intervention. The teacher may rationalize that the failure was attributable to the intervention when in fact the outcome occurred due to a lack of treatment integrity during the implementation. Similarly the inverse of this is true, if an intervention is implemented with a low level of treatment integrity in that the teacher has made changes to the way in which the intervention is implemented and the behavioral outcomes are favorable, a misattribution may be made to the intervention as opposed to the changes implemented by the teacher. Low levels of treatment integrity also increase a lack of external validity. Spath et al. (2002) commented, "If it is not clear how well or how uniformly an intervention was implemented, generalizability of results is questionable, and the intervention becomes difficult to replicate" (p. 500). Finally, treatment integrity must be monitored as it is also related to the degree to which positive intervention outcomes occur. Cowen and Sheridan (2003) acknowledged, "When treatment integrity is at risk, poor treatment outcomes may result" (p. 3).

The Second Step: A Violence Prevention Curriculum (Committee for Children, 1992) is a social skills training program that utilizes the social learning theory in

teaching children skills in the areas of empathy, impulse control and anger management. Many of the components from the Ladd and Mize (1983) and Elias and Clabby (1992) frameworks are present in the Second Step program. Students are taught lesson skills from Second Step in a story telling format. Opportunities for demonstration of a lesson skill, rehearsal of the skill and feedback for the student's performance are also provided.

### Statement of the Problem

A review of literature suggests varying degrees to which social skills training programs have demonstrated their effectiveness. Weissberg, Caplan and Silvo (1989) suggested that students' behavior might change as a result of unseen variables not directly linked to the implemented social skills training program. One potential reason for the lack of intervention effectiveness may be attributable to changes in the manner in which the program was implemented, resulting in low levels of treatment integrity. Additional data is needed examining the degree to which teachers implement social skills training programs with integrity, and the degree to which these interventions are viewed as acceptable. Lack of information pertaining to treatment acceptability may also result in the program developers creating interventions that are not readily acceptable by teachers (Gajria & Salend, 2003).

### Purpose of the Study

Preliminary research conducted by Grossman and colleagues (1997) suggests that Second Step is an effective program with elementary school age children. However, no data was provided regarding the treatment integrity levels of the implementers or variables related to treatment acceptability. While this is a limitation of the Grossman et al. (1997) study, a review of research reveals limited data reported on treatment integrity

levels (Gresham, 1989) or treatment acceptability levels of most social skills training programs. This study utilizes a case study approach to examine teachers' implantation practices when using the Second Step: A Violence Prevention Program (Committee for Children, 1992). A case study format can be utilized to examine variables related to treatment integrity and treatment acceptability. This research methodology provides an opportunity for future intervention users to gain a vicarious experience of teachers' usages and perceptions of an intervention (Donmoyer, 1990). The case study method can also provide an examination of the interrelations of intervention phenomenon as well as implementer and setting characteristics on treatment integrity and acceptability of social skills training programs.

The primary purpose of this study is to evaluate the treatment acceptability and treatment integrity practices of teachers when utilizing Second Step. A secondary purpose of this study is to evaluate the degree to which students' behavior change as a result of participating in the Second Step program. These changes are evaluated through office referrals and school suspension data. This research will contribute data related to the treatment integrity levels of teachers using the Second Step curriculum, as well as their acceptance of the intervention. Research questions include:

- 1) What are teachers' perceived implementation practices when teaching the Second Step curriculum?
- 2) To what degree is Second Step implemented with integrity?
- 3) What are teachers' perceptions of the Second Step program?

- 4) What is the degree of behavioral change obtained for students having participated in the Second Step curriculum, as measured by office referrals and suspension data?

### Definition of Terms

#### Social Skills Training

Social skills training are programs that focus on teaching students the social skills needed to interact with other students in a manner that is socially acceptable. Social skills are the behaviors that students learn for the specific purposes of accomplishing a task, be it joining in a game, or making friends (Sheridan, Maughan, & Hungelmann, 1999).

#### Treatment Integrity

Treatment integrity is the degree to which an intervention is implemented in the manner in which it was intended (Gresham, 1989). Treatment integrity is being evaluated for this study so that data regarding the specific implementation practices can be obtained in order to aid in the generalization of the results of this study for other school psychology scientist-practitioners.

#### Treatment Acceptability

Treatment acceptability is defined as a consumer's subjective and objective values of an intervention that in turn, influences his or her acceptance of the intervention (Witt and Elliott, 1985).

#### Office Referrals and Suspension Data

For the purposes of this evaluation study, office referral and suspension information will be collected to determine the degree to which students demonstrated

more appropriate social behaviors after participating in the Second Step curriculum for one to two years versus when there was no formal teaching of social skills.

## CHAPTER II

### Literature Review

#### Chapter Summary

Children's aggression is a topic that has been widely examined by schools. One of the ways in which schools attempt to delineate aggressive behavior is through the implementation of a social skills training program. Social skills training programs teach children the prosocial skills necessary to get along with other children (Berk, 1989). The research examining the effectiveness of social skills training programs has often been sparse, with mixed results reported (Wilson, Lipsey and Derzon, 2003). However, most studies fail to report important implementation variables such as treatment integrity and treatment acceptability (Gresham, Gansle, Noell, Cohen, & Rosneblum, 1993).

This study highlights the treatment acceptability levels and treatment integrity variables as related to teachers' implementation of Second Step: A Violence Prevention Curriculum (Committee for Children, 1992). Student behavioral outcomes as measured by changes in suspension and office referral rates are examined as an outcome of behavioral changes in students at two urban elementary schools. This chapter begins with an overview of the development of and variables contributing to the aggressive and violent tendencies of urban school age children. An overview of the importance of social skills training programs will then be provided followed by a discussion of the theoretical foundation for many social skills training programs. A presentation of important implementation variables including treatment integrity and treatment acceptability will be highlighted. The research on social skills training programs will then be provided. This chapter will also present and discuss the Second Step curriculum, highlighting previous



research on student behavioral outcomes, teachers' treatment acceptability levels and teachers' treatment integrity practices.

### Theories of Violence and Aggression

School violence occurs when students fail to use prosocial skills in their interactions with peers and/or school staff. Various models illuminate why aggression and violence occur in individuals. A brief overview of psychological influences, school characteristics, family relations, environmental variables, and families' social-economic status on the development of aggression in children and youth will be highlighted. This study focuses on schools in an urban setting where a majority of the students are African American.

### Psychological Influences

Trends in the development of aggressive behaviors in children help provide theoretical frameworks stressing the development of aggression and violence in children. Studies of aggressive infancy behavior have been hindered because it is difficult to obtain a measurable definition of aggression (Cairns, 1979). Most aggressive exchanges among infants are not designed to cause harm to the recipient. While research examining the role of sex on aggressive behaviors has provided inconsistent results, research is more conclusive for the similarities between girls and boys and aggressive or assertive acts, than for differences between the two groups.

Research on preschool-age children demonstrates a decrease in the number of aggressive exchanges (Cairns, 1979). Cairns attributed this difference to changes in cognition that occurs as children mature. Children in the two-year-old age range develop social preferences rather than true friendships (McCallum & Bracken, 1993). As children

grow older, they express certain social characteristics including mutuality, and cooperation. Children's prosocial skills generally mature as they grow older.

During middle childhood and teenage years, children improve their ability to use social problem solving skills (McCallum & Bracken, 1993). The infrequent use of aggressive problem solving behavior continues into middle childhood (Cairns, 1979). However, the teenage years are most turbulent with regards to the use of physical assault and other types of negative social behaviors because identity-formation and regulation becomes important. Many African American children have the arduous task of upholding a positive self-image given the racial and negative images constantly hurled at them. These types of constant stressors in an individual's life may cause them to react in different ways. One manner of reacting often highlighted in the mass media, particularly in the music industry with "gansta" rap and hip hop, includes expressions of anger. The view of the African American male as an individual seething with anger is quite frequent in today's society, be it real or imagined (Stevenson, 1992). According to Stevenson, Reed, Bodison and Bishop (1997), "There exists the perception that lives of ethnically diverse poor young men and women reflect a bottomless and irreversible loss of hope" (p. 200). This is often an accurate perception particularly for young African American adolescents residing in urban areas, as they are frequently faced with problems such as staggering high school dropout rates, increased risk for school failure, high incidences of incarceration and arrest, and a lack of vocational advancement (Nightingale, 1993). The frustration from knowing the reality of one's situation often manifests itself into anger, which then becomes further exploited in the media. For African American teenage

males, anger serves as the variable attributed to one's loss of empowerment (Stevenson et. al, 1997). Gibbs (as cited by Stevenson et. al, 1997) noted:

Anger at the individual level can affect the functioning of the Black male in numerous undesirable ways, including debilitating physical and psychological symptoms, negative and self-defeating attitudes, poor job performance, maladaptive and self-destructive behaviors, and loss of hope or limited aspirations for the future. (p. 202).

### School Characteristics

There are specific school characteristics that can lead to an increase in aggressive behavior exhibited by students. Schools in which rules are unclear, unfair or inconsistently enforced may create a breeding ground for a high level of discipline problems (Reinke & Herman, 2002). According to Reinke and Herman (2002), "Schools consisting of low expectations for academic achievement, ineffective administration, and lack of commitment of building student efficacy in learning" can lead to an increase in student delinquency (p. 552).

The use of school tracking, in which students progress academically and are grouped with other students with similar abilities, talents and/or interests, can increase the opportunities for school violence (Reinke & Herman, 2002). Academic difficulties often occur with behavioral difficulties. Students who experience school failure often experience social isolation, and may gravitate to other students with similar difficulties. School tracking can provide students with repeated exposure to antisocial and deviant peers given the tendency for antisocial youth to be repeatedly grouped together.

In a commentary by MacLennan (1999), the importance of school size as a contributing factor of school violence was examined. In schools with a large student body population, students who are feeling isolated and alienated often go overlooked by principals and school staff. Students who are neglected or socially isolated may in turn be aware of their negative social status. This awareness could lead to subsequent loss of motivation to remain invested in school social systems (Astor, Pitner & Duncan, 1998). Socially isolated students may in turn act out their aggression and increase the levels of school violence exhibited at school.

School environments that are poorly monitored also provide opportunities for elevated student violence (Reinke & Herman, 2002). Areas in school where management is weakest including hallways, restrooms and stairwells help to contribute to school crime. Schools that do not use an appropriate level of monitoring may cause students to feel unsafe, and can result in a lack of students' confidence in school administration and a weakening of social controls against violence.

MacLennan (1999) listed difficulties in the area of intergroup relations as another potential contributor to school violence. He indicated that schools are comprised of various sub-cultural cliques, representing different interest groups. However, only a small number of these cliques such as the athletes or the honor students are provided the opportunity to represent their views regarding school management. As a result, many other students often feel disempowered and overlooked. This feel of disempowerment may result in intergroup conflicts among students as well as between students and school staff. MacLennan (1999) stated:

In the Colorado incident, although for some the Columbine high school

seemed a great place, name calling, bullying and harassment were tolerated and some groups including the perpetrators of the violence, clearly felt disenfranchised (p. 98).

Providing an opportunity for all subgroups in the school to voice an opinion and participate in school management may serve to alleviate some of the conflict a diverse student body population can have. Opportunities for student body diversity to be celebrated within the school curriculum including “time and support for these different interests, either within the school day or after school” may also decrease intergroup conflict among students.

### Familial Factors

The role of the family in children’s social-emotional well being is very important. Clark (1991) stated, “The family is the most important source of support for students” (p. 47), particularly for “at-risk” (i.e., low income) African American children. Family cohesion helps to promote fewer negative behaviors in young children (Taylor, 1991).

Different theories exist to explain the role of families in the development of aggression in children. One theory that highlights the importance of the family on children’s prosocial skill development is attachment theory (Pianta, Longmaid & Ferguson, 1999). Attachment theory hypothesizes that individuals develop models that are either representational or developed internally of characteristics and behaviors of important figures in one’s life, including the self and the relationship between these two entities. These representational and internal working models help provide guidance and appraisal of behavioral expectations in new settings and relationships. The quality of representational models of attachment relationships within a family corresponds directly

to the caregiver's emotional availability, acceptance, and sensitivity. Children who come from environments characterized by representations of family relationships as secure generally go on to develop positive outcomes in the area of social competence (Pianta et al., 1999). Children's earliest attachments generally occur in their families. These experiences often have a dramatic impact on the development of aggression and violence. Social difficulties can arise in the absence of appropriate attachments.

Studies of primates raised in isolation provide conclusive evidence of the need for positive attachments (Cairns, 1979). The isolation studies indicate the lack of touch and closeness during infancy can lead to violent behavioral tendencies as an individual grows older. Primates raised in isolation from their mothers grow up in a state of perpetual fear and withdrawal. This lack of security often causes them to mistrust other monkeys in their environment and react in very aggressive ways. As summarized by Cairns (1979), "Aggressive behavior develops in the absences of any explicit training or specific attack-related experience" (p. 223). Studies of primates raised in isolation also revealed abnormal brain development, especially in "the sensory system of the cerebellum that controls movement and balance, the integrative somesthetic area of the cerebellum for touch, and the system that controls affection which is directly linked to touch and movement" (Hannaford, 2002, p. 136).

Although isolation studies, where children are separated from their families and raised alone, have not been conducted with humans given the ethical and moral problems they would create, inferences can be made from isolation studies with animals to the impact that isolation would have on humans, given the commonalities between species. However, studies of children raised in families where there is an absence of positive

attachments and/or prosocial skills help illuminate the need for positive parent-child relationships. In a study conducted by Parker and Herrera (1996), the interpersonal relations of physically abused and nonabused nine to 14-year-old children and their peers were examined. The authors observed children interacting with one another to determine the types of interpersonal skills demonstrated in these dyads. Research results indicated the interactions in dyads with an abused child were characterized by greater degrees of conflict and disagreement between the partners. These negative interpersonal skills were particularly salient during game playing situations. The authors noted the peer relations of abused children are generally not characterized by intimacy, unlike the close friendships observed by nonabused children. The authors conclude as follows:

...Children acquire mental representations, or internal working models, of others' emotional availability through their experiences of early care.

These models are extended to future relationships, particularly future close relationships such as friendships. When early care includes unresponsive, insensitive or traumatizing behavior, children may view close relationships as contexts in which they are not free to reach out for help and assistance, to share personal issues, or to respond empathically to another's emotional needs. (p. 1035)

Behavior-environment relationships are the focal point of coercion theory (Patterson, 1982). Coercion theory hypothesizes that children's negative behavioral choices are the direct result of parental negative reinforcement to the child's social and physical aggression, which in turn increases the child's aggressive behavior. Synder, Schrepferman, and St. Peter (1997) observed that parental negative reinforcement was

related to their sons' irritability toward their siblings and parents, which in turn later predicted child antisocial behavior two years after the families and children were surveyed and observed. Melnick and Hinshaw (2000) studied parenting behaviors and advice on the social-emotional functioning and peer acceptance of their children. The results of observations of family interactions with their sons suggests negative responses from the parents are viewed as a significant positive predictor of noncompliance and the degree to which the child would "shut down" (i.e., refuse to participate) during a Lego puzzle building exercise.

Family stability as related to marital discord has been examined to determine its impact on the development of aggression in children. In a study conducted by Katz and Gottman (1993), the effects of marital hostility and satisfaction on preschooler's internalizing and externalizing behaviors were examined. Their study consisted of 56 families, recruited by a newspaper advertisement, who were seen by researchers at two points in time. During the first contact between the researchers and families, the families were administered a marital satisfaction survey over the phone. For the second phase of the study, couples were observed in a laboratory setting, during a high-conflict task. The high-conflict task consisted of identifying and discussing two problem areas in the marriage. Parental reports of a child's temperament were obtained from both the mother and father. Researchers noted the type of conflict-resolution strategies couples use to solve problems appears to have a direct bearing on the type of internalizing and externalizing behavior patterns observed in their children as late as three years after the study. Children from families with fathers who were angry and emotionally distant, as measured by the marital interaction patterns and marital satisfaction surveys, were rated



three years later by their teachers as being more anxious and socially withdrawn than their peers. The authors noted, “Given that hostile marital interaction is predictive of marital dissolution, couples who are hostile toward each other may be engaging in repeated conflict that lacks clear resolution” (p. 946). The modeling of this type of ineffective problem-solving strategies might impact a child’s ability to handle stress and unpleasant emotions. The authors also observed that families who had divorced or separated three years after the study, did not have children with high levels of externalizing behaviors during this time period. Although family process variables (e.g., ways of handling conflict) appeared to correlate to both internalizing and externalizing behaviors in children, as reported by their teachers, divorce and separation did not appear to be strongly correlated with these types of behaviors. The authors also speculated that this finding might be attributable to parental personality characteristics and the impact they have on the marital interaction patterns and children’s behavioral outcomes. While this is but one example of the impact of family stability as measured by marital conflict and problem solving strategies on a child’s behavior, Katz and Gottman (1993) cite other studies with very similar findings (e.g., Cowen, Cowman, Heming & Miller, 1991; Howes & Markman, 1989). This research highlights the effects familial interactions and living in a one versus two-parent home can create on the prosocial or negative behaviors through the interpersonal relations between husbands and wives.

### Environmental Factors

According to Bronfenbrenner’s ecological perspective, the environment plays an important role in a child’s development (Berk, 1989). Ecological theory highlights the following four components of a child’s environment: macrosystem (e.g., core values and

beliefs of a society/country in which the child lives); exosystem (e.g., settings that are not in a child's immediate access, but affect the child's wellbeing such as health care agencies, parental workplace, etc.); mesosystem (e.g., the individual, family and school); and the microsystem (e.g., the activities and interaction patterns in a child's immediate surroundings).

Examining a child's meso- and microsystem, including a child's neighborhood and surrounding environment, yielded a rich context to gain further understanding of variables contributing to aggression in children. Greenberg, Coie, Lengua and Pinderhughes (1999) observed that a child's environment can "be conceived as social networks, physical or demographics, as well as subcultures, with shared social practices and beliefs" (p. 404).

According to ecological theory, the interplay of the environment on the individual impacted the individual in different ways. One important environmental contributor on the development of children is the level of violence observed in a child's neighborhood. Myles and Simpson (1994) noted the increase in violence in society has a direct correlation to how children interact with their peers. They argue that "Indeed, exposure to aggression and violence for many students is so common place that aggression becomes an accepted form of behavior" (p. 371). Many major U.S. cities have observed high rates of community violence. The 1991 Surgeon General's Workshop on Violence and Public Health (as cited by Marns, 1994) reported that between 1989 and 1990 there was a 45 percent increase in rates of violence in the city of Boston, with a 29 percent increase in Denver and a 20 percent increase in Chicago, New Orleans and Dallas. Over 80 percent of American teenagers killed in 1990 died of gunshot wounds either self-

inflicted or inflicted by someone else (Nightingale, 1993). Much of these increases have been observed in urban settings with the increase of gang violence due to sales of illegal drugs such as crack cocaine (Nightingale, 1993). In a review of research on children living in violent communities, Sheidow, Gorman-Smith, Tolan and Henry (2001) pointed out previous studies suggesting between 50 and 96 percent of children living in urban neighborhoods have been exposed to some type of community violence (e.g., Gorman-Smith & Tolan, 1998; Richters & Martinez, 1993).

According to Marns (1994), children living in environments where they are directly exposed to violence may experience greater feelings of helplessness and other patterns asymptomatic to post-traumatic stress disorder as measured by the Diagnostic Statistical Manual of Mental Disorders IV-TR. This included disrupted eating and sleeping patterns, difficulties with attention and relating to others, fearfulness and flashbacks. Marns also commented that children who are repeatedly exposed to violence may also develop problematic adaptive functioning and other maladaptive behaviors including difficulties with scholastic achievement and peer relations. Some children often exchange the role of being victimized with becoming aggressors in an attempt to gain control of their environment by assuming an active rather than a passive role.

Lynch and Cicchetti (1998) utilized the ecological-transactional model to study the impact of child maltreatment, exposure to community violence and children's social-emotional functioning. They hypothesized that violence in the community or exosystemic level may be closely related to an increased likelihood of domestic violence at home or microsystemic level. The participants included 322 maltreated and non-maltreated children between the ages of 7 to 12 years, over half of whom were African

American. The children participated in a week long camp. They were identified as being maltreated (e.g., physical and/or sexual abuse, neglect, etc.) on the basis of having cases with the Department of Social Services. The children completed a measure of community violence as well as measures of traumatic stress. The camp staff completed a behavior rating system, measuring the degree of internalizing and externalizing behaviors demonstrated by the children.

The results of this study suggested children who were maltreated reported high incidences of community violence. This study also appeared to suggest that aspects of a child's ecosystem or community could create an elevated degree of risk for problems in the microsystem or family environment. Lynch and Cicchetti (1998) commented "Specifically, community violence was associated with the rate of physical abuse and the severity of neglect" (p. 251). Maltreated children were rated higher in internalizing and externalizing behavior by the camp staff. Children who had been sexually abused had higher rates of clinically significant externalizing behaviors. The authors observed, "In a context where children may be exposed to violence in the community, severe parental neglect may further contribute to behavioral and emotional maladaptation" (p. 252). However, the authors also noted another possibility for the findings in as much as children's perceptions of community violence may be more strongly related to the degree of safety perceived in the home. If children come from homes characterized by maltreatment, they may in turn view their environment as more hostile and violent than is actually the case. As summarized by Lynch and Cicchetti, "For children growing up in contexts in which violence is occurring at multiple levels of the ecology, the risk for problems is great" (p. 28).

Miller, Wasserman, Neugebauer, Gorman-Smith & Kamboukos (1999) examined the social interactional model of the development of antisocial behavior. This model hypothesizes that children who are repeatedly exposed to violence will demonstrate greater degrees of aggressive behavior as an effective and normative way of handling conflict. The authors also examined the relationship between exposure to violence and the degree of antisocial behavior exhibited over time. Aspects of parent-child interactions including the degree of conflict, involvement and monitoring associated with these interactions were also studied. Participants included 97 boys considered at high risk for antisocial behavior, due to their urban residence, sex and presence of a sibling (half or full) with a juvenile court conviction. The average age of the participants was 11.2 years. The children's caregivers completed surveys examining their parenting practices as well as their perceptions of their child's internalizing and externalizing. The children completed surveys regarding their home environment and their perceptions of home stability and exposure to violence. The authors found a significant positive correlation between exposure to community violence and increases in antisocial behavior in at-risk boys. Other variables such as the amount of interpersonal conflict between children and their parents moderated the effects of witnessing violence on changes in antisocial behavior in these children. Low levels of parent-child fighting did not mitigate behavioral difficulties that occurred after witnessing high levels of community violence. The only group of boys who demonstrated decreases in antisocial behavior over time were those children from communities with a low degree of violence, whose homes were also characterized with low levels of parent-child fighting.

Attar, Guerra, and Tolan (1994) examined the degree to which neighborhood disadvantage related to difficulties in behavioral functioning as measured by peer nominations and teacher ratings. The authors defined neighborhood disadvantage as those neighborhoods in which community-level stressors such as poverty, high degrees of crime, unemployment or underemployment, limited resources, and poor housing exist. The participants were 384 first, second and fourth grade African American and Hispanic children from highly disadvantaged to moderately disadvantaged neighborhoods. Neighborhood disadvantage was measured by median household incomes and the percentage of students participating in the free or reduced lunch at their school. Peer nominations and teacher reports of aggression were utilized in examining aggressive behavior at the time of the study (T1) as well as one year after the study was completed (T2). Student self-report of stressful life events was also collected. The authors discovered that children living in neighborhoods with a high degree of disadvantage reported significantly more stressors at T1 than did children living in the moderately disadvantaged communities. Stressful life events, in turn, were significantly related to children's aggressive behavior.

#### Families' Socioeconomic Status

Children from low socio-economic households including those who live in poverty are at great risk for the development of poor social skills (Greenberg et al, 1999; Keltner, 1990). Nightingale (1993) observed, "Economically and socially, the post-World War II era has been a period of increasing alienation for poor, unskilled, urban African Americans" (p. 188). Additionally the mixture of economic instability and joblessness often leaves children "with deeply painful feelings of frustration,

disappointment, humiliation, and shame, and these emotions have in turn profoundly affected their behavior towards members of their families and communities”

(Nightingale, 1993, p. 8). The 1998 report generated by the National Center for Children in Poverty (as cited by Barrera et al., 2002) detailed the fact that children and youth are overrepresented in Americans who live in poverty. Barrera and colleagues (2002) commented that in 1996, 23 percent of young children lived in poverty compared to only 11 percent of adults.

The effects of poverty on the social development of children, particularly as poverty leads to aggressiveness, have been widely researched. McLoyd (1998) observed, “During the past two decades or so, poverty has become more geographically concentrated in inner-city neighborhoods (among poor African Americans but not among poor Whites” (p. 185). The disadvantages of living in a high-poverty neighborhood include limited accessibility of employment and a lack of high-quality public or private social, recreational and academic services. There is also greater exposure to homelessness, illegal drugs, community violence and negative role models (McLoyd, 1998). Poverty is also linked to biomedical and epidemiological difficulties (Chan & Rueda, 1979).

In a study conducted by Duncan, Brooks-Gunn and Klebanov (1994), the impact of poverty on the cognitive and behavioral development of children by age five, was examined. The authors hypothesized that being poor for a relatively short period of time is less detrimental to a child’s development than is persistent poverty. Income dynamics were measured by patterns of family and neighborhood poverty levels occurring between 1979 and 1984 based on a sample of 568 black and 796 white children who were zero to

three years in 1980. The sample included families who participated in the Infant Health and Development Program, a program created to reduce the incidence of developmental delays, low-birth weight and preterm infants. According to the authors, children living in an urban, low-income neighborhood with a larger percentage of low-income neighbors were more likely to demonstrate greater externalizing behavior than children in the control group. The authors also determined that children transitioning from a two to a one-parent household are more likely to exhibit behavioral difficulties as are children living in a one-parent household with a persistent degree of poverty. Children in female-headed households also exhibited greater rates of behavioral difficulties, which the authors attributed to the possibility of a limited income experienced by single mothers raising children.

The effects of poverty and the quality of the home environment on behavioral and academic outcomes were measured in a study conducted by Dubow and Ippolito (1994). The authors examined poverty status during the four years prior to the initial sampling of academic and behavioral functioning, poverty status during the four years between the two assessments of academic and behavioral functioning, and the quality of the home environment. The 473 children utilized for this study were between the ages of five to eight years old in 1986. Maternal poverty rates were collected every year during the span of the study. Poverty status was assessed based on data collected on the family's net income. Quality of cognitive stimulation and academic support were measured based on observations and interviews. Academic achievement scores in the areas of reading and writing were obtained. The children's behavioral adjustment was measured by maternal reports on a behavior rating scale. The results demonstrated that poverty during the early



years of a child's life significantly affected increases in negative behaviors as well as declines in academic achievement. Home quality characterized as cognitively stimulating and emotionally nurturing led to increases in academic achievement and decreases in antisocial behavior during the elementary school years, irrespective of poverty levels.

Barrera and colleagues (2002) provided a hypothetical model from which various pathways impact the internalizing and externalizing symptoms of urban adolescents. Participants included 300 adolescents ranging from 11 to 15 years in age and their parents. Per capital income per family, joblessness or loss of work or wages, perceived economic hardship, parents' depressive symptoms and parental support were obtained from mother's reports. Association with deviant peers, internalizing and externalizing symptoms were assessed with adolescents' reports. The results suggested that economic hardship is negatively related to supportive parenting when maternal depression was considered. Mothers who reported a high incidence of depressive symptoms were more likely to demonstrate impairment in showing acceptance, being actively involved and providing monitoring for their children. Supportive parenting was also negatively correlated to internalizing problems, but was not significantly related to externalizing problems or associations with deviant peers. Association to deviant peers was significantly related to internalizing and externalizing behavior which may be due to the tendency for deviant peers to create stressful events in which adolescents may participate (e.g., gang activity, breaking the law, etc.).

## Summary

There are numerous developmental trajectories in which aggression and violent behavior develops in children. These trajectories include developmental changes that occur as a child ages, familial influences, environmental factors and socioeconomic status or degree of poverty. When examining these trajectories with an ecological perspective, the more negative stressful variables that a child faces (e.g., poverty, exposure to violence, limited positive attachment to family members, etc.), the more likely elevated rates of antisocial and aggressive behaviors will be observed. While there is much research on the development of aggression in children, it appears that there are many different variables that impact this developmental occurrence (Barrera et al., 2002). Emphasis will now focus on school violence and the roles that schools can play in dealing with violence.

## Social Skills Training

School violence and aggression occur at most school settings and require appropriate preventative and intervention strategies. Morrison, Furlong and Morrison (1994) noted that in order for a school to be free from violence, it is essential to "create school conditions that limit the risk of all harm to children, regardless of any intent or unavailability that might be involved, thereby creating a safe school" or a school free from violence (p. 241). One way of creating safe schools is to teach children how to develop and maintain appropriate relationships with one another. Social skills training and violence prevention programs are examples of widely researched tools that aid in the quest to decrease school violence.

## What Are Social Skills Training Programs?

According to Gresham, Sugai and Horner (2001), “Social skills are specific behaviors that an individual uses to perform competently or successfully on particular social tasks” (p. 333). Examples of such skills include turn taking, giving a compliment, and beginning a conversation, to name a few. Social skills training programs can be defined as the process by which children are taught the effective tools necessary to interact with other students in a prosocial manner (Ison, 2001). These programs are utilized to teach specific behaviors associated with social situations including how to initiate and sustain positive peer interaction, cooperate during playtime, and respond with kindness and empathy to other children (Berk, 1989).

Social competence is a term that is frequently used synonymously with social skills. Social competence typically refers to “behaviors that indicate a well-adjusted, flexible, emotionally mature, and generally prosocial pattern of social adaptation” (LaFreniere & Dumas, 1996, p. 373). McFall (1982) defined social competence as judgments made by others such as a parent, teacher or peer, regarding the successful or unsuccessful competent performance on a specific social task. These judgments may be based on explicit criteria or on comparisons to a normative sample.

Another type of social skill training is the psychological or behavioral skills training. Psychological skills training was also derived from social learning theory and was developed in an effort to deal with an individual’s lack or deficit in skills necessary to acquire satisfactory interpersonal functioning (Goldstein, 1985). The task became to provide the active and deliberate teaching of desired behaviors through training between a trainee and a psychological or behavioral skills trainer. Training was established through the use of modeling a behavior, providing guidance and opportunities for

learners to practice the new skill and the provision of ample opportunities for successful experiences in which these new behaviors are rewarded.

### Why the Need for Social Skills Training?

There exists a tremendous need to teach students of all ages appropriate social skills. The following reasons highlight the need for social skills training including 1) the need to decrease school violence; 2) the need to improve peer relations; and 3) the need to help students excel academically.

Decrease in School Violence- One of the primary reasons for the importance of social skills training programs is that they help to curtail school violence. School violence is a topic that is of paramount importance for most school educators regardless as to the location of the school district and population of the student body, as it can potentially impact any school or student. As Morrell (2002) observed, "...violence in schools exists, comes in different forms and impacts on teachers, learners, parents and the schools themselves" (p. 38).

There are various types of school violence that can readily occur at the elementary or secondary level. Examples of school violence not only include the more publicized type similar to those instances that occurred in Littleton, Colorado and Paducah, Kansas, but also include bullying, taunting, mistreatment by teachers, harassment based on cultural, ethnic and/or other physically and non-physically distinguishable differences (e.g., sexual orientation). Given that most schools are under tremendous pressure to provide services to curtail school violence, Zins, Travis and Freppon (1997) observed the question most frequently asked by school educators and practitioners is "What types of interventions have the greatest promise of reducing the incidents of school violence?" (p.

262). Based on a review of research, their response to this question focused on the association between school violence and reduced risk factors and/or elevated levels of protective factors. Zins and colleagues listed academic difficulties, externalizing problem behaviors, family difficulties, substance abuse, and exposure to violence and interactions with antisocial peers as examples of risk factors leading to violent or aggressive behaviors. Protective factors helping to decrease interpersonal violence include prosocial skills, conflict/anger management, interpersonal problem solving, communication and parental involvement, to name a few. Even though education and prosocial skill development provide a buffer to interpersonal violence, many schools often attempt to implement a social skills training program to address school violence.

Social skills training programs help curb interpersonal violence by teaching students the skills necessary to get along with other students (Goldstein, 1985). Schools provide a key location to teach students social skills as students spend a majority of their lives in these institutions and regularly interact with other students. Many students often fail to obtain the appropriate social skills training outside of the school environment and therefore are deficient in their knowledge of the prerequisite skills necessary to refrain from fighting (Morrison & Sandowicz, 1994). For example, Berk (1989) observed that when highly aggressive children were presented with an opportunity to watch another person's pain and suffering, they responded with more aggression. According to Berk, aggressive children respond aggressively due to their limited exposure of interpersonal interactions in which empathy is demonstrated. Social skills training programs provide students with the opportunity to observe and practice the prosocial skills in which they are deficient.

Although some students are deficient in their knowledge of appropriate prosocial behavior, other students have the appropriate knowledge base but demonstrate a performance deficit as they have received inappropriate positive reinforcement when they have acted aggressively or violently (Morrison & Sandowicz, 1994; Synder et al., 1997). By teaching students to interact with one another in a prosocial manner, it becomes possible to decrease interpersonal violence at school.

Improve Peer Relations- A second reason for the importance of social skills training is that it helps to promote positive peer relations among students (Goldstein, 1985). Peer relations are important for a variety of reasons. First, social networks provide students with invaluable learning tools needed to navigate their way through a variety of life experiences. Not only are social skills a necessary component of one's educational experience, but social skills are also needed outside of school in life-experiences such as extracurricular activities and/or employment to name a few. Second, a student's ability to be accepted by other students and develop a peer group that is engaged in positive peer relations is tantamount to the student's ability to ward off negative emotional consequences. Ison (2001) commented:

Disruptive child behaviors, such as aggressiveness, impulsivity, oppositional defiant disorder, and attention-deficit hyperactivity disorder, among others, are likely to emerge during the early school years, being a continuous source of concern for parents and teachers alike. Escalations in problem behaviors are commonly observed as children progress through their school years. The resulting maladjusted styles of social interaction certainly have negative effects on both the child and those related to him. p. 903.

Burkowski and Hoza (1989) observed that a child's early experiences with peers are important for the development of several basic skills necessary for positive and successful social interactions. These experiences not only contribute to a child's self-concept, but also aid in his or her sense of support, security and social skills development. Students who are not readily accepted by their peers and/or lack a consistent group of friends are often students who will “miss out on positive opportunities for inclusion, companionship and recreation, emotional support, help and guidance” (Asher & Rose, 1997, p. 208). Gresham (1997) noted that without functional social skills, children are more prone to develop behavioral and emotional disorders. Additionally, students with peer relational difficulties report higher levels of loneliness (Asher & Rose, 1997). Levitt, Guacci-Franco and Levitt (1993) also observed that students with peer difficulties might exhibit greater emotional difficulty as they get older and may be at risk for loneliness, rejection and victimization as children. Children who develop emotional and behavioral difficulties grow into adults with various affective and behavioral disorders. These problems will impact an individual's ability to function appropriately within his or her vocational and social contexts. Social skills training is a necessary component in developing the social competency needed to develop appropriate peer relations.

Academic Achievement- A third reason for the importance of social skills training programs is that prosocial skills have been indirectly linked to positive school outcomes including, but not limited to, academic achievement (McLloyd, 1998). Asher and Rose (1997) observed, “Children who are rejected by peers lose out on several important relationship provisions or benefits, especially companionship and having someone to provide help or to share resources and information” (p. 197). Shared resources and

information is particularly important for students in a school setting as the lack of these two variables may significantly and negatively impact one's academic performance. One way in which the lack of prosocial skills can lead to negative school outcomes is in the area of student-teacher relationships. In a study conducted by Blankemeyer, Flannery and Vazsonyi (2001), the effects of a high level of school competence as a buffer to the negative impact of aggression on the relationship between students and teachers were examined. The participants were 1,432 third through fifth grade students and their teachers. While the authors pointed out that socially competent students are liked better by their peers as well as by their teachers, they also observed that for non-aggressive as well as for aggressive boys, poor school adjustment was negatively related to perceived student-teacher relations. However, aggressive students who demonstrated higher levels of school adjustment were likely to report more favorable perceived child-teacher relationships than those students who demonstrated poor school adjustment. Thus the authors' hypothesis indicating "high social competence would buffer the negative effects of aggression on the child-teacher relationship" (p. 295) appeared to be true.

Several other studies have focused on the relationship between social skills and school outcomes, including the relationship between prosocial skills and academic achievement. For example, in a study conducted by Azmitia (1988), children's solitary and collaborative performances were examined in an attempt to identify whether or not interactive problem solving lead to greater learning when compared to the effects of solitary problem solving. The author observed that when students were provided with modeling of how to work cooperatively with others, they tended to collaborate with their peers in a positive manner. These positive collaborative sessions proved to be a more



effective way of learning course material in comparison to those students who worked independently.

Levitt et al. (1994) also examined the relationship between social support and academic achievement. The authors assessed the degree to which social support was related to achievement through self-appraisal in which students were asked to identify those individuals who were the closest to them as well as those individuals who the participants considered to be the most important. The study included approximately 300 students; approximately one hundred from grades one to two, grades four to five, and grades eight to nine respectively. The results of the study suggest the impact of social networks on academic achievement increases with age. In grades 1 through 2, no significant relationship was assessed between social networks and achievement. However, in grades 4 through 5, the social support was indirectly related to academic achievement given the direct relationship of social support to self-concept. In grades 8 through 9, social support was directly related to achievement scores (i.e. Stanford Achievement Test scores) and indirectly related to achievement indices given its relationship to self-concept.

Similar effects were observed in a study conducted by Trapani and Gettinger (1989). The authors examined the effectiveness of social skills training and cross-age tutoring for boys with learning disabilities. The participants included 20 boys in grades four through six who were randomly assigned to one of three experimental conditions including a treatment group in which they received social skills training and tutoring, a comparison group that only received social skills training and a control group that did not receive either treatment component. The model utilized for this research was based on a

social communication model in which verbal and nonverbal responses are perceived as the guiding force of interpersonal relationships. During the treatment phase of the research, the students in the two treatment groups received social skills training focusing on five social communication areas including greeting, asking appropriate questions, listening and complimenting others. The training was conducted for seven consecutive school days. After social skills training had occurred, the children in the first experimental group tutored second grade students who were only in a general education program, while the students in the social skills only and non-treatment groups remained in their special education resource rooms and worked on spelling assignments with another student who was classified as learning disabled. Three performance measures were administered for each child, including a spelling achievement pre and posttreatment assessment, teacher ratings of their students' behavior, and direct observation of the students' behavior. The results suggested learning disabled students benefited from social skills training followed by tutoring for improving in the areas of academic achievement and social communication behaviors. The combination of tutoring and social skills training appeared to be more effective than the social skills training alone condition or the non-training and no tutoring condition.

#### Theoretical Development of Social Skills Training Programs: Social Learning Theory

Many social skills training programs utilize social learning theory as a rationale for the steps in achieving positive behavioral change. Social learning theory incorporates several major tenants of other relevant theories. The primary goal of social learning theory is to examine why individuals behave in a certain way (Rotter, 1982). It seeks to understand how individual differences in behavior are acquired, generalized and changed

by highlighting the influence of modeling, reinforcement and cognitive variables on behavior. Its origins grew out of research studies examining the relationship between frustration and aggression (Berk, 1989). Martin and Pear (1996) commented, "This approach is 'social' in the sense that it places great emphasis on the social contexts in which behavior is acquired and maintained" (p. 388). Although social learning theory was initially outlined and defined in the 1950s (Rotter, 1982) it became a more widely researched theory in the late 1960s and early 1970s (Martin & Pear, 1996). During this time, psychologists began focusing on behavior modification and behavior therapy as a major psychological orientation.

The foundation of social learning theory is built upon other theories including social cognition, learning theory and reinforcement theories (Rotter, 1982). Social cognition is the study of how individuals make sense of their own actions as well as the actions of others (Fiske & Taylor, 1991). Learning theories examine how individuals learn and acquire new information. Reinforcement theories focus on environmental factors that reward or punish certain behaviors. Social learning theory can also be utilized to address problems inherent with the skills-deficit model. For example, Ison (2001) observed that for students who are conduct disordered, a deficiency in social skills may have occurred given the early influences of emotional, affective, cognitive, and environmental problems on their social learning.

Julian Rotter (1982), one of the first social scientists to outline and define social learning theory, hypothesized that an individual's pattern of behavior occurs based on desired or undesired outcomes. He identified three fundamental variables that help to predict an individual's behavior including generalized or specific expectancies,

reinforcement value and psychological situations. Generalized expectancies are those in which an individual rationalizes a hypothetical outcome of an ambiguous or novel situation. Specific expectancies occur when an individual has previously encountered a specific event and can hypothesize the probable outcomes from that event. For example, if children who are taught not to whistle at the table during dinner or they will receive a consequence for their undesirable behavior, may come to understand, over a series of trials, that if they whistle while eating dinner, they will not be permitted to have dessert. By postulating or experiencing the consequences one's behavior has produced, a child will receive a real or imagined reinforcement of that behavior. The reinforcement value, or the desirability of the consequences received should a particular behavior be conducted, either helps to motivate or discourage an individual's desire to act in a specific manner. A pattern of behavior will then become established as a result of what the child anticipates or has experienced if and when a behavior is performed or not performed.

Rotter (1982) maintained that reinforcement values generally remain stable. For example, an individual's behavior is generally relegated to patterns of behavior considered "normal" as opposed to "abnormal". This is because social acceptance is one of the strongest motivators for any given behavior. However, it is possible for people to learn new ways to problem solve through cognitive means, by "recreating the past to create, through imagination, events which have not actually occurred" (p. 351). New patterns of behavior are established when new reinforcements are paired with other reinforcements either through cognitive means or through real-life practice.

The final piece of social learning theory, according to Rotter (1982), consists of examining an individual's psychological situation. The psychological situation is "a

complex set of interacting cues acting upon an individual for any specific time period" (p. 318). These cues may be internal or external, and the time period can extend over long or short periods of time. The psychological situation is often how an individual interprets his or her environment. A social learning theorist often attempts to treat this variable by "...identifying the situation in the common sense terms of the social group, subculture or culture..." while making clear "...the objective referent for what we are talking about and still treat[ing] the environment as a psychologically meaningful, or subjective environment" (p. 319). By taking an individual's expectancy, reinforcement value and psychological situation into account, it is possible to alter an individual's established pattern of behavior.

Although the tenants listed in Julian Rotter's first publication in 1950 helped give birth to social learning theory (Martin & Pear, 1996), several other theorists also had a major impact on the development and growth of social learning theory. The research of Robert Sears utilized social learning theory to examine the behaviors that infants and children learn in order to satisfy their own needs (as cited in Berk, 1989). Sears focused heavily on the parent-child interaction and determined that the manner in which parents satisfied their baby's needs strongly influenced the present and future social-emotional development of the child. Sears adapted his version of social learning theory from Hullian Learning Theory, and also utilized aspects of psychoanalytic theory.

Albert Bandura was also a major contributor to research in the area of social learning theory (Berk, 1989; Martin & Pear, 1996). Bandura focused on observational learning or modeling in several laboratory research studies. His studies often demonstrated the power that observing behaviors of others had in the development and

reinforcement of a variety of behaviors in children. Bandura argued that children learn specific behaviors, such as kindness or aggression from observational learning, which consisted of watching the actions of others. His research has focused on the impact that modeling specific behaviors can have in teaching children how to interact with other people and/or objects in either a negative or positive manner.

Bandura's research emphasized that observational learning can occur with or without the assistance of external reinforcement. However, external reinforcements, such as praise or the gratification of one's need, can often serve as motivators for individuals to perform a certain behavior. Bandura also highlighted the significance of cognitive processes on patterns of behavior (Bandura, 1986). For example, he determined that individuals generally assess their ability to perform an act, also known as their self-efficacy, prior to performing a specific behavior. If people's self-efficacy is high enough, they have more motivation and confidence in their behavior than an individual with a low self-efficacy. As Grumpel (1994) observed, "As the individual becomes more skillful in generating behavioral options, he will become less reliant on external sources of change" (p. 197).

Behavioral interventions utilizing social learning theory emphasize the client's context in order to begin the process of behavior change and to maintain the intervention gains (Nietzel, Guthrie, & Susman, 1991). Although an individual's social context can help to reinforce positive behavioral changes, it can also serve as catalysis to reduce or eliminate these changes. Semi-periodic check-ups where the positive behaviors are encouraged and affirmed may aid in the retention of the newly acquired and desired behaviors.

## Framework for Effective Social Skills Training Programs

### Key Variables for Implementation Success

Tilly and Flugum (1995) defined an intervention as “a planned modification of the environment made for the purpose of altering behavior in a prespecific way” (p. 485).

The Surgeon General’s report on youth violence (2001) defines an effective intervention as a method that involves:

Reducing the risk of violence among youths who display one or more risk factors for violence (high-risk youths) or preventing further violence or the escalation of violence among youths who are already involved in violent behavior (p.63).

Fagan and Milhalic (2003) proposed several key research-based factors that increase the likelihood of implementation success of a school-based prevention program. One way of increasing the likelihood of implementation success is through the use of project directors or coordinators whose job it is to champion “the innovation and guides its daily operations” (p. 237). The school’s key leaders (i.e., administrators and principals) provide a second necessary ingredient to the successful implementation of a program. Their responsibility is to allocate resources and scheduling and provide social leadership. Another key component includes support and buy-in from teachers. According to Fagan and Milhalic (2003), teachers are the key participants who often implement school-based prevention programs. They must provide support for the curriculum or the likelihood for implementation will be jeopardized. One way of obtaining support from teachers is to convince teachers of the utility of the program. This can occur through the use of a fourth key variable, which is ongoing training. Initial and

ongoing training provide teachers with the skills and knowledge necessary to implement the program. A final key component needed to enhance implementation success relates to the selected curriculum. The selected curriculum must have goals and procedures that are relevant and easy to understand.

#### Key Social Skills Curriculum Teaching Variables

Goldstein's (1985) model of Structured Learning, a psychological skill training approach based on Bandura's social learning theory, highlights the need for four key teaching procedures that must be present in a social skills training program in order to reduce aggressive behavior in children. The first procedure is modeling. Goldstein believes aggressiveness can be viewed as a deficiency in social skills, and as such, people need exposure to examples of appropriate and positive behaviors. During a modeling procedure, the target audience observed actors portraying a step-by step process resulting in a positive behavioral skill. The second key procedure is role playing which provides the opportunity for the main actor to rehearse new skill steps while role playing with one or more co-actors. A third procedure is performance feedback. During this procedure, students receive immediate verbal feedback on their role plays in order to "let the main actor know how well he or she followed the skill's steps or in what ways he or she departed from them, to explore the psychological impact of the enactment of the co-actor, and to provide the main actor with encouragement to try out his or her role play behaviors in real life" (p. 14). The final procedure is transfer of training, which occurs when the target students utilize the modeling, role playing and performance feedback experiences in real life settings in- or outside of the learning environment in which the skills were presented.



Ladd and Mize (1983) also proposed two training variables necessary to achieve positive behavioral changes in children. The first training variable is instruction. The authors defined instruction as “providing a learner with information from which a concept of behavior or a performance standard can be identified or abstracted” (p. 131). Instruction may either be provided in a modeled manner (i.e., the behavior or skill is acted out) or in a verbal manner (i.e., verbal communication about a new skill concept or behavior). A second training variable is rehearsal. The authors defined rehearsal as “acting or operating in such a manner as to achieve a match between current performance and a standard, such as a previously represented skill concept” (p. 132). This can occur in an overt (i.e., physical movements or gestures) or covert manner (e.g., imagining a potential situation in which the skill can be applied).

#### Key Social Skills Curriculum Lesson Areas

Ladd and Mize (1983) provided a cognitive-social learning model for the development of a social skills training program. The authors used social learning theory as the theoretical underpinning for their framework. They hypothesize that there are three training objectives for social skills training programs. These include enhancing skill concepts, promoting skill performance and fostering skill maintenance/generalization. Each training objective contains three or more training procedures. Social skills training programs that effectively incorporate these key objectives may have a greater likelihood of providing the desired positive behavioral outcomes in students (Elias & Braden, 1988).

Elias and Clabby (1992) highlighted three phases in which social problem solving and social awareness skills are instructed. The first phase is teaching students self-

control skills to help them focus on processing social information in an accurate manner. Students are also taught to delay their behavior until a thoughtful and effective approach to handling a conflict is identified. The second teaching phase focuses on instructing students in the area of social awareness and group participation. During this phase, students are taught social skills necessary to participate in group discussions. Skills such as taking turns and respecting other students' opinions are highlighted. These skills are important because they provide students with the necessary tools to attend to and glean from discussions. A final phase for teaching social awareness and social problem solving is the social decision-making and problem-solving phase. During this phase, social decision-making and problem solving skills are emphasized in order to provide students with sequential and meaningful ways of understanding, analyzing and reacting to conflicts.

#### Widely Used Social Skills Training Programs

Within the area of social skills training programs, there exist some programs that are very popular and widely used by schools. One such program is the *Skillstreaming the Elementary School Child* (McGinnis & Goldstein, 1997) curriculum. According to its authors, Skillstreaming is an intervention that utilizes both psychological and educational theories to help students acquire prosocial skills. McGinnis and Goldstein (1997) observed:

The psychoeducational approach viewed the student or client in educational terms, rather than as an individual in need of therapy, and assumed that individuals were deficient, or at best weak, in the skills necessary for effective and satisfying daily

living. The task of the skills trainer, therapist or teacher was thus to the active and deliberate teaching of desirable behaviors (p. 7).

This curriculum focuses on four learning processes that were heavily emphasized by the work of Albert Bandura including modeling, role-playing, feedback and transfer. The goal of Skillstreaming is to develop “interpersonal, aggression management, and related skills to children who are weak or lacking in these competencies” (p. 40). Sessions are best held three to five times per week, with emphasis on one specific skill during two to three sessions per week. The sessions are conducted for approximately 25 to 40 minutes, with shorter time periods used for students in lower elementary grades. Although the instruction can be conducted in classroom settings of 20 or more students, the role-play portion of the lesson is ideally taught with small groups to allow for participation and feedback for most of the group members.

Another widely used social skills training program used by schools is the *I Can Problem Solve: An Interpersonal Cognitive Problem Solving Program* (ICPS, Shure, 1992). The ICPS curriculum focuses on teaching children how to think through social situations as opposed to what to think. The program was created based on the research conducted by Shure and Spivack (Rooney, Poe, Drescher, & Frantz, 1993). The collaborators do not focus on teaching children what they should do, but rather how to make the appropriate decisions for themselves regarding what to do and what not to do. Rooney and colleagues (1993) observed “With this approach, they [Shure and Spivack] are also supporting the reverse psychotherapeutic approach to intervention- that behavior

and thus emotional health follow thinking rather than that healthy beliefs follow the establishment of emotional stability” (p. 335).

The ICPS curriculum is divided into various lessons associated with a specific age or developmental group. The three developmental groups that are targeted include the Preschool, Kindergarten and Primary Grades, and the Intermediate Grades. Teachers should implement the program with small groups of six to ten children per group, for approximately 20-minutes per day. Examples of a few of the problem solving skills included in the curriculum are sections on Alternative Solutions, Consequences, Solution-Consequences Pairs, and Means-Ends Thinking. Field tests were conducted for each of the three volumes (Rooney et. al, 1993).

Most of the results of the field tests tended to indicate positive responses by teachers regarding the program. For example, the Preschool Edition was used and evaluated by a teacher who had a classroom of ten students who were approximately six to seven years old. These students were classified as being at risk for developing behavior problems. The teacher recorded her satisfaction with the program given the fact that the students were provided with choices. She noted that the program was easily integrated into her curriculum and felt that teaching students social problem skills is an important component of her curriculum that focuses on developing social skills.

#### Research on Social Skills Training Programs

While many schools may choose to implement some type of program aimed at decreasing aggression in students, there is still debate over which programs are most effective for a given population (Gottfredson et al., 2000). For example, research on ICPS has been inconclusive regarding the program’s effectiveness (Weissberg et al.,

1989), and there is limited relevant research regarding treatment acceptability or treatment integrity levels used when implementing the program. Similarly, Skillstreaming is touted as a widely used program, but research on the effectiveness of and treatment integrity practices used with Skillstreaming is practically nonexistent (McKenna, 2000).

In a meta-analysis, Wilson, Lipsey and Derzon (2003) conducted an examination of the effects of school-based interventions. The authors sought to differentiate practice-based school practice programs (e.g., site based programs that already exist in the school and is evaluated by either a school-based individual or an outside researcher) from demonstration programs (e.g., programs that are implemented and evaluated by a researcher for the purposes of research or demonstration), and to evaluate the effectiveness of practice-oriented programs routinely used by schools. Practice oriented programs included social competence training programs without any cognitive-behavioral or behavioral component, social competence training programs with cognitive-behavioral components; behavioral and classroom management techniques, therapy or counseling services, separate schooling/schools-within-schools; peer mediation, academic and educational services, and multimodal.

A second area of interest in Wilson et al.'s (2003) study was the degree of behavioral changes in aggressive behavior over the time periods covered by the research studies. The analysis used for this study consisted of separating the intervention and control groups, and using the pretest and posttest means to compute the effect sizes for each condition. The authors chose this method to obtain a picture of the types of behavioral changes the treated and untreated children exhibited and to examine group

differential behavioral changes from the pretest to posttest time periods. These researchers examined 221 articles that met the following criteria: a) any English article conducted and published after 1950; b) involvement of a school-based program for children in grades preschool to 12<sup>th</sup>; c) the intervention studied at least one outcome variable that represented aggressive behavior; d) the utilization of a study on experimental or quasi-experimental design in which a treatment group was paired with one or more control conditions; and 3) the utilization of a study on pre-posttest design. Studies were selected if they met these criteria, and were coded by trained research assistants.

Wilson and colleagues (2003) found that for all age levels, the students in the intervention groups showed greater pre-posttest changes in behavior than did children in the control groups, with a mean effect size (MES) difference at .31. Children from the preschool and high school age range demonstrated the largest effects at .33 and .37 respectively. According to the authors, children, regardless as to their risk level (e.g., high risk due to individual characteristics versus their environment), made significant behavioral changes, while students in the control group demonstrated small and statistically nonsignificant changes in behavior. Children who participated in programs in which they received one-on-one attention generally demonstrated greater changes in aggressive behavior than those provided to groups in or outside of class. Interventions that were delivered by teachers were more effective than those delivered by laypersons or by researchers. In studies utilizing a randomized design, social competence training with a cognitive-behavioral component (MES .33) and behavioral, classroom management (MES .43) were found to be the treatment models with the largest effect sizes. However,

effect estimates in studies utilizing non-randomized designs yielded different results. This effect size was larger in studies utilizing therapy or counseling (MES .43).

Schneider and Byrne (1985) provided a meta-analysis of social skills training programs for ages 3 to 19. The authors purposed to provide a qualitative summary of social skills training programs for children. The researchers initially examined 200 articles to determine if the following variables were included: a) the focus of the study was to measure the degree to which an intervention enhanced a child's social behavior; b) the study included a control-group; 3) the study provided a qualitative measure of social behavior; and 4) the results were reported in format that could be used for analysis for this study. A total of 51 studies were found to exhibit the aforementioned characteristics. The treatment technique, duration of treatment, subject population characteristics, implementer characteristics, outcome variables and reliability of outcome measures were examined.

In the area of training techniques, Schneider and Byrne (1985) observed studies in which direct reinforcement of an appropriate social behavior yielded the highest mean effect size of .85. The second highest mean effect size of .75 observed was for studies using modeling. In the area of outcome measures, studies utilizing social interaction (e.g., levels of demonstrated aggression during peer interactions) as the outcome variable yielded the largest effect size of .89. There were more researchers reported as program implementers than there were teachers. A review of child characteristics revealed children between the ages of five and ten observed less positive results than preschoolers or adolescents. This pattern was especially highlighted when coaching and modeling intervention techniques were used. Although interventions implemented for shorter

intervals produced higher effect sizes, the differences were not statistically significant. No data regarding treatment integrity levels for the articles examined was provided in this study.

The work of Schneider and Byrne (1985) was extended in a study conducted by Beelmann, Pfingsten and Losel (1994). Beelmann and colleagues (1994) conducted a meta-analysis to measure the effects of comprehensive social skills training programs, or social competence training programs (SCT). The authors defined SCT as behavioral and/or cognitive interventions applied to provide training for children ages three to 15. The training models specifically had to incorporate one or more of the following training variables: a) a cognitive component; b) a motor component (e.g., mutual play); or c) an affective component. The goals of the meta-analysis was to determine the effectiveness of SCT for different program types in relation to specific study group characteristics (e.g., age), to examine the specific effect patterns the type of programs and group characteristics produced, to assess the types of follow-up and effect over time, and to examine the results of this study in comparison to other meta-analysis (e.g., Schneider & Byrne, 1985).

A total of 49 out of 73 studies that met the aforementioned criteria were used for Beelmann et al. (1994) study. Studies were included if they met the following criteria: a) training programs had to refer to 3 to 15 year old children; b) studies used an experimental or quasi-experimental design; c) outcome assessment must have reported quantifiable measures for social competence; and d) studies must have been published between 1981 and 1990. A total of 30 studies were published between 1981 and 1985 with the remaining 19 published between 1986 and 1990. Thirty-eight of the studies



were conducted in regular schools/preschools. The first author conducted all codings. A second independent rater was utilized to randomly code fifteen studies for the purposes of testing reliability. Coding consisted of comparisons of three classes of treatment aptitude. The first area examined was the type of intervention characteristics used. Treatment types were classified according to the complexity of the intervention (e.g., monomodal vs. multimodal) and type of training (e.g., behavioral, etc.). Thirty-two studies conducted between 1981 and 1985 utilized a monomodal method, with the remaining seven studies conducted between 1986 and 1990 utilized a monomodal method. Client characteristics were also examined. The type of diagnosis (e.g., externalizing vs. internalizing), intellectual deficits (e.g., learning disability, mental retardation, etc.), at-risk groups (e.g., children with multiple stressors in environment), and children without any of the aforementioned problems were utilized as classifications of client characteristics. Outcome assessment variables measured in the areas of content constructs were provided.

The overall main effect of .61 for the Beelmann et al. (1994) was in the moderate level, although significantly lower than what was reported in the Schneider and Byrne (1985) study. Social-cognitive interventions (e.g., social problem solving skills) demonstrated the largest effect on social skill development in comparison with other types of interventions. Social problem solving training programs were most effective in prevention or high-risk groups and not in normal children. Self-control training proved most effective for children with externalizing syndromes, while children with internalizing syndromes demonstrated significant improvements after participating in a program consisting of simple behavioral training. An analysis of subject characteristics

revealed that preschoolers between the ages of three to five appeared to generate the largest effects for the degree of positive behavioral outcomes demonstrated. No significant effects could be determined when follow-up and long-term effects were examined. Instead, most results suggested a general decline in program effectiveness over time.

Some of the research examining the outcomes of individual social skills training programs has provided promising results in increasing student's prosocial skills thereby resulting in improved peer relations. In a study conducted by Abalbjarnardottir (1993), the impact of a social-cognitive competence and skills program for elementary school aged-children was assessed. Ninety-six students between the ages of eight and 11 were randomly selected to participate in a social-cognitive competence program in which their teacher encouraged discussion of appropriate behaviors in a variety of settings and social situations. A control group in which students did not receive any social skills training was also utilized as a comparison. The students participated in the program for four weeks during the fall semester as well as for 10 weeks during the spring semester. The themes of the social-cognitive curriculum focused on friendship, social interaction during recess and social interaction within the classroom. The results of the study demonstrated greater changes in reciprocity for students who participated in the study versus those in the control group. The treatment group students also demonstrated improved prosocial skills in real-life situations when interacting with peers from both the treatment and control group. This study was limited because treatment integrity levels were not monitored or evaluated.

In a study conducted by Ison (2001), the effects of a social skills training program on the types of responses of conduct disordered and non-conduct disordered students in various social situations were highlighted. The participants of the study included 90 male students who were observed to have conduct disorders on the basis of social-emotional measures administered to students between the ages of 8 and 12 years, as well as 81 students without conduct disorders. The control group consisted of 74 children with conduct disorders and 70 children without conduct disorders. The students in the control group were not administered a social skills training program. The social skills training program consisted of understanding social skills, giving and receiving a compliment, learning prosocial ways of making a complaint, apologizing, saying no, and asking for a favor. The program included 14 teaching units that were administered twice a week for approximately 30 minutes. According to Ison, prior to receiving treatment, the disruptive children who were identified as having conduct disorders tended to respond aggressively in social situations 1) requiring communication of positive and negative feelings, 2) making requests or complying to the requests of others, and 3) controlling impulsivity. These students also demonstrated oppositional, defiant, or aggressive nonverbal and verbal communication patterns when required to express their desires and needs to others.

Once the conduct disordered students had completed the social skills training program, they demonstrated improved ability to control their aggressive and impulsive reactions as well as controlling their aggressive responses when expressing their thoughts or feelings. The treatment group also made more assertive responses when making a request or complying with a request or command. The control group students only demonstrated a decrease in aggressive responses when expressing their disagreement, but

did not demonstrate an increase in assertive responses. Finally, students in the treatment group demonstrated a significant increase in self-control as well as acceptance by peers. In contrast, the control group students only demonstrated a reduction in hyperactivity as well as physically and verbally aggressive behaviors. A limitation of this study was also related to the lack of treatment integrity levels measured.

In research conducted by Bienert and Schneider (1995), aggressive and withdrawn students were provided the opportunity to observe 10 skill modules of prosocial interactions as part of a social skills training program. According to the researchers, the peer nominations for likeability and social self-perception ratings of the target group increased significantly in comparison to students with similar behavioral limitations who were placed on a waiting list. Post-treatment research further indicated continued benefits from social skills training for aggressive and withdrawn students. However, no information was recorded regarding treatment integrity variables utilized in this study. While this is just one example of the impact of social skills training with aggressive children, additional research suggests similar findings (Berk, 1989; Banks, Hogue, Timberlake & Liddle, 1996). By teaching students to interact with one another in a prosocial manner, it is possible to decrease the number of aggressive acts carried out at school (Gottfredson et al., 2000).

#### Limitations of Studies Examining Social Skills Training Programs

While social skills training programs offer promising hope in teaching students the skills needed to develop positive peer relations, many programs do not achieve this desired outcome. According to Carolyn (1997), many of the empirical reviews of social skills training programs demonstrate a lack of sufficient behavioral change in the target

group. One of the primary reasons for this limitation is that while many social skills training programs teach, model and provide coaching of prosocial skills, the acquisition of the new skill either does not occur or does not transfer to settings outside of when the lesson is being presented (Weissberg & Gesten, 1982). For example, in an article written by Weissberg et al., (1989), the behavioral impact of ICPS (Spivack & Shure, 1982) was examined. As previously noted, Weissberg and colleagues (1989) revealed that there is a lack of conclusive evidence from research indicating the behavioral changes for students who participated in the ICPS curriculum were directly attributable to the curriculum and not to other undetected variables. They based this argument on the fact that other researchers have failed to replicate Spivack and Shure's (1982) findings.

In a study conducted by DuPaul and Eckert (1994), the results of empirical studies examining the maintenance and generalizability of social skills training programs was reviewed. The authors conducted a comprehensive examination of research published between 1966 and 1993 on the generalizability of notable social skills training programs. The results of this review identified only seven empirical studies assessing the generalization of the effects of various social skills training programs. The articles examined the maintenance of learned skills over a relatively short period of time (e.g., one to three months post-treatment). These studies utilized the following generalization practices including "train and hope" (i.e., treatment is provided in a training environment but no additional measure is added to ensure generalization), modification of maladaptive consequences, use of contract natural consequences, utility of sufficient stimulus and response exemplars, incorporation of common physical and social stimuli, and incorporation of self-mediated covert, verbal and physical stimuli. Of the different types

of generalization programming strategies reported in these articles, DuPaul and Eckert (1994) noted the most successful strategy included a combination of social skills training and alteration of consequences in the natural environment.

In an article written by Sheridan et al. (1999), three difficulties with social skills training programs were outlined. First, the authors argued that many social skills training programs do not consider contextual or environmental factors as contributing to a student's behavioral difficulties. Many social skills curricula utilize the deficit model noting students' inability to get along with other students is the direct result of their lack of knowledge of how to interact appropriately. However, there are multiple and varied environmental contexts that directly impact a student's ability to get along with other students (e.g., history of behavior disorders in the family, living in high crime community, etc.). Second, while many social skills training programs focus on teaching students specific social skills, most programs failed to test whether or not these prosocial skills are relevant and important for a student's ability to build and keep positive peer relationships. Finally, the authors also noted the issue of generalizability is usually not addressed prior to and throughout the intervention implementation.

Another major limitation of many studies that examine the effects of social skills training programs is the lack of information regarding the treatment integrity levels utilized during program implementation. Weissberg and Gesten (1982) noted that social skills training programs have a greater likelihood of obtaining positive behavioral outcomes among students when teachers who had received training implemented the program with integrity. For example, in the meta-analysis conducted by Wilson et al. (2003), the authors observed programs that were poorly implemented produced the

smallest effect sizes. As indicated by Cowen and Sheridan (2003), “When treatment integrity is at risk, poor treatment outcomes may result” (p. 3).

### Treatment Integrity

Treatment integrity is one of the key variables related to the success of an intervention. School psychologists are frequently called upon to work with school staff in identifying and implementing strategies aimed at eradicating various school problems (e.g., bullying) while increasing certain desired goals (e.g., increasing empathy and tolerance). However, many interventions that are implemented meet with less than desired results. One key reason for a failure of a research-based intervention may be related to the fact that the steps that were needed to achieve the results were overlooked or not closely followed (Gresham, 1989). As previously indicated, while much research focuses on various interventions aimed at addressing particular types of behavior and/or learning difficulties, very few studies identify the steps required in achieving a successful intervention (Gresham et al., 1993; Lane, Beebe-Frankenberger, Lambros & Pierson, 2001). It is therefore important that school psychologists as well as school staff understand the importance of the correct implementation of a treatment, or treatment integrity, as well as several related concepts such as treatment fidelity and treatment adherence.

A review of significant terms is now provided. First, treatment integrity is defined as the degree to which an intervention plan is implemented in the manner that was originally intended (Gresham, 1989; Gresham et al., 1993). Treatment integrity is also characterized as the technical precision and consistency with which an intervention is implemented across time (Detrich, 1999). Lane et al. (2001) defined treatment

integrity as “the measurement of the accuracy and consistency with which a treatment is implemented” (p. 367). Treatment adherence, or the precise delivery of a treatment on a consistent basis (Allen & Warzak, 2000) is also frequently used when discussing issues related to treatment implementation. Meichenbaum and Turk (as cited by Telzrow, 1995) also defined treatment adherence as “the degree to which the consultee is committed to implementation of a specific intervention and actively demonstrates intervention-related behaviors” (page 501). Finally, plan implementation or the systematic, step-by step process of implementing an intervention as planned (Flugum & Reschly, 1994), is also a term that is used synonymously with treatment integrity. For the purposes of this study, treatment integrity will be referred to as the degree to which an intervention is accurately implemented according to its design.

There are several reasons why the study of treatment integrity is so crucial. A primary reason for the importance of studying treatment integrity was summarized by Allen and Warzak (2000) who observed “...the success of an intervention is dependent not only upon its effectiveness but also upon its precise delivery by a clinician and the consistency with which [individuals] implement the treatment with all of its essential features” (page 373). Treatments or interventions not implemented in the manner in which they were designed will lead to failure to achieve the desired goal. Both the appropriateness of an intervention and the manner in which it is implemented must be considered in order to increase one’s chances of obtaining the greatest degree of success.

Another reason for studying treatment integrity is to gain a better understanding of why specific results were achieved. Gresham et al. (1993) noted the lack of data on treatment integrity issues has significantly impeded school psychologists’ understanding



of which interventions or intervention components are the most effective in bringing out a desired behavioral change. For example, in a study conducted by Billings and Wasik (1985), an attempt was made to replicate the findings of an earlier behavioral experiment in which the disruptive behavior of four Head Start children was systematically changed through self-instructional training. However, Billings and Wasik (1985) found that although the experimental conditions were thought to be the same, the behavior of the new students did not decrease as previously demonstrated. The authors noted that additional conditions such as the amount of positive teacher interaction and attention as well as the characteristics of the therapist might have been some of the variables in the previous study that aided in the desired behavioral change. Similarly, it has been observed that modification of interventions by teachers/consultees is a regular occurrence (Rosenfield, 1987). Therefore, unless a research study is specifically monitoring treatment adherence, in many of the studies teachers may have made changes in the way in which the intervention was implemented. Such teacher modifications should be reported as these modifications may be the key ingredient to the success of the intervention.

A third reason for the importance of treatment integrity is linked to the issue of replication of the success of an intervention. Moncher and Prinz (1991) highlighted data indicating the levels of treatment integrity might directly increase the probability of replication of previous studies. For example, Billings and Wasik (1985) pointed out the behavioral changes listed in a previous study were related to additional variables outside of dependent variables the original authors had initially reported. Failure to control the

experimental variables may significantly impact the ability to replicate similar behavioral changes.

Lastly, in most behavioral studies, the psychologist seeks to target and manipulate the conditions in which the desired behavioral change should occur. By controlling the experimental conditions, the psychologist is able to control the internal validity of the study, thereby ensuring that the variable the psychologist intended to study is the one producing the desired or undesired results as opposed to other, unwanted variables.

Moncher and Prinz (1991) noted that without a systematic examination of treatment implementation, the results of any study might be open to threats to internal and external validity, as information on the types of changes in the independent variables that affect changes in the independent variable cannot be verified.

Although factors related to treatment integrity help provide key information regarding the effectiveness of an intervention, research has proven that relatively few empirical studies examine and discuss treatment integrity. For example, Peterson et al. (1982) examined the degree to which articles published in the *Journal of Applied Behavior Analysis* (JABA) were at risk for inaccurate treatment variable application. Two independent examiners reviewed and rated experimental articles published from 1968 to 1980 for this review. The first examiner rated every issue while a second rater rated one issue per year. Assessments of the independent variable and independent variable definitions were conducted as part of the evaluation process. Ratings of the independent variables were divided into three categories including: a) some information regarding the application of the independent variable was provided; b) no accuracy checks of the independent variable were reported, but the risk of the lack of this

information was deemed relatively minimal; and c) accuracy checks of the independent variable were not performed although the cost to one's knowledge of the effectiveness of the studies was deemed to be very high. Based on the results of this assessment, approximately 20% of the articles reviewed did not report independent variable assessment even when there was a significant probability of inaccuracy. The results also indicated 16% of the articles also failed to operationally define the independent variable. The authors perceived these results to be detrimental to the field of school psychology, as a lack of sufficient information relating to treatment integrity of independent variables significantly threatens the field's ability to achieve a primary goal of demonstrating changes in behaviors that are related to changes in the environment.

Gresham et al. (1993) built on Peterson et al.'s (1982) earlier study by examining 158 experimental articles that studied the effect of treatment on behavior and were published in JABA between 1980 and 1990. Gresham et al. proposed to identify the degree to which articles conducted with children who were under 19 years of age, assessed or monitored the implementation of independent variables. Three advanced doctoral candidates independently coded the 158 articles. Each student coded one third of the JABA articles published between 1980 and 1990. A fourth doctoral candidate rated a random sample of 10% of the studies to determine interrater agreement. The articles were coded according to two primary categories including operational definition of the independent variable(s) and integrity assessment. In terms of operational definition of the independent variable(s), studies with sufficient operational definition were placed in the "yes" category if the operational definition provided sufficient information related to the verbal, physical, temporal, and spatial variables of the

independent variable. Studies that did not meet the criteria of the “yes” category were coded with “no” if no information or an insufficient amount of information related to the operational definition of the independent variable was provided. In terms of the integrity assessment, studies were classified into three categories including “yes”, “no”, and “monitored” based on the article’s assessment of treatment integrity.

The results indicated that 34.2% (54 studies) of the 158 articles provided an operational definition of the independent variable. Of the articles that were examined, 15.8% (25 studies) assessed and commented on the levels of treatment integrity of independent studies. The range of treatment integrity levels occurred from 54% to 100%, with a mean of 93.8%. The authors concluded, “Peterson et al.’s call for increased measurement of independent variables has not been heeded” (page 260).

Finally, Gresham et al. (1993) examined 181 experimental studies related to child-based behavioral interventions published between 1980-1990 to determine whether or not treatment integrity was addressed and to determine information related to the degree of treatment integrity, whether or not an operational definition of the treatment was provided and effect sizes produced by the interventions. The articles were taken from seven journals including: a) *Behavior Disorders*; b) *Behavior Modification*; c) *Behavior Therapy*; d) *Journal of Applied Behavior Analysis*; e) *Journal of Abnormal Child Psychology*; f) *Journal of Consulting and Clinical Psychology*; g) and *Journal of Behavior Therapy and Experimental Psychiatry*. Gresham et al. focused on child-based behavioral intervention studies that were conducted in school settings. The authors noted that their present review differed from Peterson et al.’s (1982) study in that it provided a more recent review of studies, while utilizing a more representative sample of journals

and focusing on school-based interventions. The research questions of this study were related to the degree to which treatment integrity was assessed, whether or not operational definitions of the independent variables were provided and degree to which these behavioral interventions were effective (i.e., effect sizes). The studies chosen for this review met the following criteria: a) experimental in nature; b) population of children who were under age 19; c) publication date between 1980 and 1990; d) data allowed for the calculation of the magnitude of treatment effects needed to be present; e) control groups were present so that causal inferences could be made; and f) studies took place within school settings. The studies were coded according to subject, treatment, dependent, design, and effect size variables. Subject variables included age or grade of the students. Treatment variables included four treatment categories such as operant conditioning, social learning, cognitive behavioral, or multicomponent (i.e., one or more type of treatment or two or more treatments of different types used for comparison). The ten dependent variables included academic behaviors, social behaviors, and disruptive behaviors, stereotypic and destructive behaviors, eating, psychological well-being, academic related behaviors, combination of dependent variables, and other. Each study was then placed into one of three design categories including group, withdrawal, multiple baselines, alternating treatments, or changing criterion. Interrater reliability was established with the assistance of a fourth coder who re-rated a random 10% sample of the utilized studies.

The results of the Gresham et al. (1993) analysis revealed that most school-based intervention studies employed multicomponent experimental designs in which two or more types of interventions were used. Of the 181 studies examined, only 64 of the

studies (approximately 35% of the sample) provided an operational definition of the intervention. Additionally, only 27 of the 181 studies (approximately 14.9%) methodically evaluated and reported levels of treatment integrity. The authors commented that an additional eighteen studies provided some monitoring of treatment integrity, but failed to provide any data regarding the level of integrity. The results of this meta-analysis, similar to those found by Peterson et al. (1982), continue to demonstrate the gap in literature related to treatment integrity.

While few school-based behavioral studies published in seven major experimental journals provide information regarding treatment integrity, studies that do provide this information help to highlight the importance of treatment integrity in terms of successful outcomes. For example, in a study conducted by Taylor and Miller (1997), the use of timeout as a behavioral intervention for students with moderate to severe disabilities was examined. The authors observed that although timeouts are frequently used as a school-based behavioral intervention to reduce problem behaviors, the effectiveness of timeouts is often less than desirable. The authors hypothesized that two variables, the lack of treatment integrity and the improper implementation of the treatment, can result in negative outcomes. Four students with developmental disabilities participated in the study. The students attended a special education program that was located at a residential day treatment facility.

In the first part of the experiment, the classroom staff was observed administering timeouts to all four of the students. The observation revealed that when left alone, the staff had limited understanding of how to effectively administer timeouts. Once the classroom staff was provided with modeling and scripted information, the effectiveness

of timeout as a behavioral intervention increased for students who utilized inappropriate behavior as a means of obtaining attention. The results appear to be directly attributable to intervention implemented in a correct manner and the high level of treatment integrity due to regular feedback from the experimenters.

In another study, Fuchs, Fuchs and Karns (2001) assessed the effects of dyadic peer mediated treatment on the mathematical development of kindergarten students. Twenty kindergarten teachers were randomly assigned to a peer assisted learning strategies (PALS) treatment or to a contrast treatment consisting of instruction from the school district's standard math curriculum. The PALS teachers administered PALS with every student in their class. Classroom observations were conducted during a two to four minute instructional period to check for levels of integrity. Pre- and posttests were conducted to measure changes in students' mathematical abilities.

Based on the results, the PALS instruction helped increase the levels of mathematics achievement of the students in the PALS classrooms. The observers noted the 10 teachers who administered PALS were able to maintain treatment integrity during approximately 90% of the classroom instructional math activity. Although teachers did not always implement PALS in the manner in which it was intended, there was a relatively high degree of treatment integrity observed by the experimenters that in turn may have directly improved the math skills of the kindergarten students in the PALS classrooms.

Fuchs, Fuchs, and Hamlett (1989) contrasted the academic outcomes of a conventional curriculum-based measurement process (CBM) in the area of math with a nontraditional CBM model. For the traditional CBM, or the static CBM model, the

teachers measured student progress as it related to a fixed annual goal. However, procedures for the nontraditional or dynamic goal CBM required that the teachers measure student achievement in relation to a dynamic goal that is constantly readjusted once the student reaches mastery level. The authors also sought to determine the scope of skills that are affected by CBM. Thirty special educators from 16 southeastern metropolitan schools participated in this study. The teachers worked in both resource and special day class settings. Teachers were randomly assigned to one of three treatment groups including a dynamic goal CBM, a static goal CBM, and a control. Each teacher selected two students with mild or moderate disabilities who were also identified as learning disabled, emotionally disturbed, or educable mentally retarded. Each student had Individualized Education Plans with goals in the areas of math, reading and spelling. Both treatment groups of students participated in a 15-week experimental session in which their teacher utilized CBM to track the students' attainment of their math goals.

The accuracy with which the teachers implemented the treatment was measured by their performance on the Math Modified Accuracy of Implementation Rating Scale (M-MAIRS; Fuchs, 1987). This measure examines a teacher's performance as indicated by three subscales including Initial Set Up (e.g., baseline information and writing goals), Measurement (e.g., task administration), and Data Utilization (e.g., entering data into the data-management system and timing instructional changes). Treatment implementation was also assessed by two additional indexes provided by the M-MAIRS including the number of goal changes each teacher introduced and implemented, and the final goal ratio obtained by each student. According to the results of this study, the dynamic goal CBM group's adjusted achievement level was higher than the comparison CBM group



with an effect magnitude of .52. Findings on the M-MAIRS measure indicated both the dynamic goal CBM and the comparison CBM teachers implemented their treatment programs with relative accuracy. However, the dynamic CBM teachers utilized more ambitious goals and increased their students' goals more frequently than did the comparison teachers, providing further evidence of adherence to the treatment conditions of the dynamic CBM group. Given this high level of treatment adherence as well as the type of intervention utilized, the students in the dynamic CBM group achieved better than the control group on the Math Computation Test.

In a study conducted by Henggeler, Melton, Brondino, Scherer, and Hanley (1997), treatment for juvenile offenders without ongoing checks for treatment integrity was examined. The authors examined the effects of a family- and home-based treatment program called multisystemic therapy (MST) when used with 155 violent or chronic juvenile offenders and their primary caregivers. The offenders referred by the South Carolina Department of Juvenile Justice (DJJ), were between the ages of 11 and 17, had committed a serious criminal offense or had at least three prior criminal offenses and were in imminent risk of being placed in a setting outside of their home due to their criminal involvement. The goal of this research was to determine whether or not the effects of MST could be maintained with minimal training (e.g., workshops and little attention to treatment adherence). Additionally, the effect of treatment adherence was assessed in order to determine whether or not implementation of this complex therapy model could aid in the maintenance of positive behavioral effects in the absence of stringent treatment integrity.

A 2x2x2 design model was implemented where the effects between the MST group and the usual service control group (US), pretreatment vs. posttreatment, and location (e.g., site 1 located in urban and rural areas and versus site 2 located in a predominantly rural area) were assessed. In addition to pretest and posttest data, a follow-up study was conducted approximately 1.7 years later. Five masters-level mental health therapists from each site participated in one of two MST training sessions. In the first session, the therapists got six days of intensive and experiential training in which role-playing, critical case analysis and problem solving exercises were utilized as training tools. The second group of therapists received videotapes over a four- day period of the training sessions provided to the first group of therapists. The adolescents in the US group were placed on probation for at least six months. The subjects and their families were administered pre- and post-test measures to examine the adolescent's emotional adjustment, criminal activity, family relations, parental monitoring and peer relations. A self-report questionnaire (MST Adherence Measure) was also administered to both the adolescent's family and to the therapist to examine treatment adherence.

In the area of emotional and behavioral functioning, the results of the study demonstrated significant effects in two areas. First, the adolescents in the MST condition reported fewer psychiatric symptomatology in comparison to the self-reported increased symptomatology of the US adolescents. Parental reports of these problems decreased from T1 to T2 for both groups. Second, although no significant differences were observed in the area of criminal activity on the self-report questionnaires of both groups, adolescents in the MST group were incarcerated at a rate of 47% lower than the US group. This difference was observed even for individuals who did not complete the MST

program (i.e., dropouts). Finally, a hierarchical multiple regression analysis was employed to examine the impact of changes in the dependent variable attributable to treatment adherence factors. The authors observed that when treatment integrity is not strictly enforced or taken into account, the therapeutic effects become minimal to nonexistent.

Telzrow, McNamara, and Hollinger (2000) examined the issue of treatment integrity as it was related to student behavioral or academic achievement. Specifically, the authors were interested in the way in which multidisciplinary teams (MDTs) utilized problem-solving through Intervention Based Assessments (IBA) to achieve desired behavioral or academic goals for students. Data obtained from 227 MDTs within various school districts in Ohio was obtained to examine the manner in which Intervention Based Assessments (IBA) were conducted. Each MDT was asked to provide an IBA “best case” (i.e., a case that the team felt would reflect their best efforts at achieving a specific goal) for review by two specialist-level school psychologists. The authors developed and used a likert scale to measure both the level of integrity of problem-solving implementation and the degree of student behavior or academic change. Focus was placed primarily on six of the eight IBA problem-solving components that were directly correlated with treatment integrity. Based on the results of this study, the six problem-solving components were implemented by the MDTs with differing degrees of integrity. The authors reported “on average, evidence of treatment integrity was absent or vague” (p. 454). Despite the statistically significant relationship between the six problem-solving components of the IBA, modest findings in the area of student outcomes were

observed, given the variability with which most of the components of IBAs were implemented.

Noell et al. (2001) examined consultation as a possible strategy to increase treatment integrity with five general education teachers. The teachers were tasked with implementing a peer tutoring intervention for reading comprehension with a student selected earlier. The goal of this research was to observe the accuracy with which the teachers implemented a peer tutoring plan. A classmate was appointed to serve as a peer tutor for each of the target students. Treatment integrity was measured during both the in-class teacher training and the performance feedback sessions. During daily follow-up meetings, the consultant inquired about the status of the intervention. The consultant did not possess any knowledge of student outcomes prior to or during the follow-up meetings. However, performance feedback meetings were also conducted in which the consultant met with the teacher before school to review student outcome data as well as teacher intervention implementation data. The results of this study indicated that prior to follow-up and performance feedback meetings, teachers implemented the intervention plan at low levels of integrity (e.g., 50% or less). After one of the two types of consultation meetings, teacher intervention integrity levels increased to a mean of 87%. However, certain teachers responded better to some forms of consultation in comparison to other forms of consultation. In conclusion, the authors realized the type of consultation that is effective (i.e., performance feedback versus follow-up meetings) would vary according to the teacher's personality and preference.

Research conducted by Jones, Wickstrom and Friman (1997) also examined the effect of performance feedback. The authors hypothesized that performance feedback is

more effective in changing teacher behavior than is verbal feedback alone, as performance feedback is related to implementing effective behavior modification techniques. Three teachers participated in receiving consultation with a target student who exhibited low levels of academic participation. The students and teachers were all located at a middle school located in a residential treatment community for students enrolled in a boy's home. The school utilized various behavior modification systems including token rewards, school-home notes, and point fines. Consultant behavioral observations of teachers' implementation of positive behavioral modification techniques revealed the teachers used minimal to no positive verbal praise or point awards for on-task and appropriate student behavior. Modest behavioral changes and increased teacher implementation of behavior modification techniques were observed following teacher consultation and performance feedback.

In a thesis study conducted by McKenna (2000), the implementation practices and level of treatment integrity teachers at a large inner city elementary school utilized while implementing the Skillstreaming curriculum (McGinnis & Goldstein, 1985) were examined. The school consists of 900 Kindergarten through fifth grade students. A majority of the students, teachers and personnel are African American.

A level of treatment integrity scale utilizing the critical lesson components of the curriculum as well as critical components of social skills training programs (i.e., modeling, performance and feedback) was developed for this study. Each critical component was operationalized according to the manual descriptions. The critical components were also submitted to two expert judges to assess the content validity. The scale was then used to observe the classroom instruction of Skillstreaming. Teachers

were also interviewed to examine their perceptions and attitudes regarding Skillstreaming. Prior training and training needs were also examined during the semi-structured interview.

A total of 12 teachers were initially identified and asked to participate in the study. Teachers were initially identified by the school counselor, psychologist or principal or through a sign up sheet. A total of four teachers out of 12 agreed to participate in the observations and semi-structured interviews.

The teachers were observed implementing Skillstreaming a total of three times. Reliability checks were performed for 17% of lesson observations through the use of two additional raters who also viewed classroom observations and coded the lessons to measure the degree to which the critical components were implemented. After each teacher was observed, they participated in an interview with the experimenter. The interview consisted of six questions and ranged in duration between seven and 25 minutes.

The results of this study examined the degree to which a treatment integrity measure for classroom Skillstreaming instruction could be developed. The scale was developed based on the operationalization of the critical lesson components and feedback from expert judges regarding the critical components and observation form. McKenna's (2000) second research question focused on the degree to which the classroom Skillstreaming treatment integrity measure could be reliably used. In order to assess the reliability of the measure, two of the 12 lessons were observed by two trained observers. The interrater reliability for the first observed lesson was 86%, while the second observed lesson revealed an interrater reliability of 95%. The fourth research question examined

the degree to which teachers implemented Skillstreaming. The results of this study revealed moderate to low levels of treatment integrity levels used by the teacher-participants. Teachers implemented Skillstreaming from four to 27 minutes per lesson. The level of treatment integrity did not appear to be the function of the teachers' years of teaching, but appeared to be a function of the teachers' own characteristics. Although the number of subjects utilized in this study was small, McKenna's (2000) work provides some insight into the degree to which teachers implemented a social skills training program.

#### Increasing Treatment Adherence

Although the aforementioned studies highlight the close relationship between treatment integrity and positive academic and/or behavioral outcomes, as previously indicated much of the research presently lacks sufficient information regarding treatment integrity. Research suggests that many teachers/consultees implement interventions that are different than the manner in which it was intended (Jones, Wickstrom, & Friman, 1997; Noell et al., 2001; Rosenfield, 1987). School psychologists must frequently deal with situations in which an intervention is not implemented or adhered to in the manner that was mutually agreed upon by the psychologist and the intervention implementer. As previously indicated, treatment or intervention adherence is the degree to which school staff are mutually committed to implementing an intervention according to the mutually agreed upon and prescribed specifications (Telzrow, 1995). Discussion regarding variables related to the lack of treatment adherence including a clearly developed treatment/intervention plan, opportunities for adapting the intervention, provision for

ongoing support and/or consultation, and acceptability of the intervention by the teacher is now highlighted.

There are several reasons why treatment adherence does not occur. One reason why treatment adherence fails to occur is because the treatment plan was not clearly defined or discussed in a manner that the treatment implementer clearly grasps (Gresham, 1989; Telzrow, 1995). Witt and Elliott (1985) observed, “A prerequisite to insuring treatment integrity is knowing exactly how an intervention should be conducted” (p. 266). For example, in research conducted by Taylor and Miller (1997), the use of timeout as a behavioral intervention for students with moderate to severe disabilities was examined. The researchers observed that when left alone, the teachers had limited understanding of how to effectively administer timeouts. Once they were provided with modeling and scripted information, the effectiveness of timeout as a behavioral intervention increased for students who utilized inappropriate behavior as a means of obtaining attention. Similarly, research conducted by Jones, Wickstrom and Friman (1997) in which the issue of observational feedback on treatment integrity of behavioral modifications was studied, the authors observed that although the teachers who participated in their study were employed at a nontraditional school that reportedly utilized regular behavior modification for positive and negative student behavior, the behavioral modifications that could have been utilized were minimally implemented. These results suggest that the teachers might not have had sufficient knowledge, among other character or environmental variables, to accurately implement the appropriate modifications.



In addition to the lack of a clearly developed treatment plan, the presence or absence of appropriate support structures can also significantly impact treatment adherence. Telzrow (1995) observed that support structures provide the necessary assistance and guidance needed to encourage staff members to monitor and correct the way in which they are implementing an intervention. One form of supportive assistance utilized to increase treatment adherence is consultation, which can take a variety of forms. Performance feedback is one form of consultation that can improve levels of treatment adherence, thereby increasing treatment integrity. For example, in a study conducted by Mortenson and Witt (1998), the effect of performance feedback on the improvement of teacher intervention implementation was examined. The researchers utilized the services of four regular education teacher-student dyads in which the target student appeared to possess the ability to complete classroom assignments, but infrequently did so. Treatment integrity was assessed as the percentage of the 14 pre-identified intervention steps that were correctly completed by the teacher as scored by a review of permanent products. The materials required to implement the intervention were given to each teacher. Performance feedback was implemented when the researchers found the levels of integrity were stable or decelerating below 70%. The results of this study demonstrated that “the provision of performance feedback resulted in immediate increases in overall teacher integrity for each teacher whom performance feedback was given in the study” (p. 621). The results of this study as well as those observed by Taylor and Miller (1997) and Jones and colleagues (1997) in which regular meetings with a consultant were provided, highlight the need for supportive services

provided to teachers in order to increase treatment adherence and obtain favorable outcomes.

A third reason for the lack of treatment adherence is because many interventions do not allow room for adaptation. Witt and Elliott (1985) said teachers would frequently modify interventions that are complex in a user-friendlier manner. Teachers need to feel a sense of ownership with the intervention before they can embrace and adopt it. Interventions that allow the teacher to make a few modifications to fit his or her classroom practices are ones in which the likelihood of acceptability are the greatest.

#### Treatment Acceptability

Elliott, Witt and Kratochwill (1991) noted importance of treatment acceptability to intervention adherence. Treatment acceptability is considered to be a social validity construct. Social validity is “the degree that behavior-change efforts impact favorably upon consumers” (Carr, Austin, Britton, Kellum & Bailey, 1999, p. 223). Treatment acceptability is defined as the “judgments from treatment consumers pertaining to whether or not they like the treatment procedures or effects. It is the subjective evaluation of an individual’s satisfaction with treatment” (Witt & Elliott, 1985, p. 254). Treatment acceptability is an important variable that is closely related to treatment integrity as the degree to which an intervention is acceptable will have direct impact on the degree to which the intervention is properly implemented (Reimers, Wacker & Koepl, 1987). Research suggests that interventions will have a greater likelihood of being implemented if the implementers find them acceptable (Witt & Elliott, 1985). Interventions not deemed acceptable by the teachers who will be using them can compromise the treatment adherence of the intervention (Detrich, 1999). Although there

has been some attempt to develop standardized measures to examine the level of treatment acceptability, Finn and Sladeczek (2001) observed “Despite the development of various scales to measure the perception of acceptability by a specific target group (e.g., parents, teachers, and children), treatment acceptability assessment has typically consisted of self-report, paper-and-pencil questionnaires that provide overall ratings of acceptability” (p. 1999).

#### Research on Treatment Acceptability

Research on treatment acceptability has often provided inconsistent results (Gajria & Salend, 1996). For example, Elliott, Witt, Galvin & Peterson (1984) suggested that as problem severity increases, so do teachers’ willingness to utilize complex interventions. This and other hypotheses were examined by Cowen and Sheridan (2003). Cowen and Sheridan (2003) examined the treatment acceptability of conjoint behavioral consultation, a service delivery model in which parents, teachers and support staff are joined together to discuss academic and behavioral concerns of a target child. The authors hypothesized that parents, teachers and students would rate interventions that used a positive (e.g., reward) component more favorably than any other type of intervention. They also hypothesized that complex interventions would be rated less favorably than interventions that were less complex. Finally, the authors examined the degree to which increases in subjective ratings of the problem behavior severity related to acceptability ratings for complex interventions.

The study utilized 67 student-participants, who were labeled with a disability or thought to be at-risk for academic failure and/or academic, behavioral and social deficits as measured by teacher and parental ratings. The special education classification of

students who participated in this study included 29% learning disabled, 5% intellectually handicapped, 44% classified as behaviorally disordered, 5 % were diagnosed with attention-deficit hyperactivity disorder and 17% had non-specified or other disorders. A majority of the students who participated were Caucasian (75%). Referrals were made to CBC consultants by school psychologist and/or other school team members if a student a) was at risk for failure to meet the basic academic requirements; b) demonstrated inappropriate social or behavioral difficulties. There were 67 parents who also participated in this study. Consultants consisted of 39 graduate school psychologists who were trained in the implementation of CBC as part of a year long consultation seminar and practicum. Consultation cases occurred in six large school districts in both a large Western city and a medium-sized Midwestern city. The four independent variables used for this study included a) type of behavioral intervention used for each case; b) the type of intervention characteristics (e.g., reductive or negative consequences); c) the number of components per intervention; and d) the teacher and parental subjective rating of the problem severity. The types of interventions utilized included a) a note home; b) student self-monitoring of his or her behavior; c) social skills training, parent tutoring; and d) reductive consequences (e.g., loss of privileges, time out, ignoring behavior, etc.).

The procedures consisted of participation in the CBC process in which problem identification, problem analysis, treatment implementation and treatment evaluation occurred in four-stages. The subjective teacher and parental ratings of student's behavior occurred during a prereferral meeting. Results of the study revealed that all of the proposed interventions were rated with high levels of acceptability. Significant differences in intervention preference occurred with parents only. Parents preferred

“positive” interventions as opposed to “positive with reductive consequences.” An examination of treatment complexity on the impact of acceptance ratings revealed no differences for parents. The only difference occurred with the teacher group. Teachers reported higher levels of acceptance for interventions that were complex. Analysis of problem severity and intervention acceptability revealed a significant positive relation for the teachers group only. The researchers found that as the problem severity ratings increased, so did treatment acceptability. When severity of problem, complexity of intervention and treatment acceptability were measured using regression analysis, no support was observed for the hypothesis that as problem severity ratings increased, so did treatment acceptability of a complex intervention. The results of the Cowen and Sheridan (2003) study provided discrepant data regarding treatment acceptability of more complex interventions for severe behaviors as initially postulated by previous research (e.g., Elliott et al., 1984).

Not only has research on treatment acceptability provided inconsistent results, the amount of data provided on this subject has also been sparse. In a study conducted by Carr et al. (1999), researchers studied the frequency in which treatment outcomes and treatment acceptability were reported in the *Journal of Applied Behavioral Analysis* during the years of 1968 and 1998. Carr and colleagues (1999) observed similar findings to that of Kennedy (1992) in that less than 20% of the studies reported in the *Behavior Modification* and *Journal of Applied Behavior Analysis* reported on social validity measures including treatment outcome and treatment acceptability. Carr et al. (1999) found that social validity measures were rarely utilized until the late 1970s. During the 1980s, about one third of the researchers reported on treatment outcomes and

acceptability. However, the authors observed there has been a lag in data on treatment outcome and acceptability since this time and that only a quarter of the research articles reported on these two measures.

This research highlights a significant gap in the present literature base. If levels of treatment acceptability are not reported, future program developers will have little if any information regarding the likelihood of treatment acceptability or rejection. As previously highlighted, when treatments are accepted they are more likely to be implemented (Witt & Elliott, 1985).

#### Variables That Facilitate Treatment Acceptability

In order to increase the likelihood of treatment acceptability by a teacher, certain variables should be considered. First, the effectiveness of the intervention must be considered. As suggested by Gajria and Salend (1996), “teachers want to implement interventions that can significantly change behaviors in the desired direction” (p. 93).

A second reason for high levels of treatment acceptability may be attributed to the type of intervention utilized (Cowan & Sheridan, 2003; Gajria & Salend, 1996). Reimers and colleagues (1987) noted that interventions that were designed to increase positive behavior as opposed to decrease negative unwanted behavior were the more preferred types of interventions. These authors observed that when these three variables are included in an intervention, the staff members in turn demonstrated a greater tendency to accept the intervention and adhere to implementing the treatment as previously established.

Some research has supported that specific characteristics of the target student may correlate with high levels of treatment acceptability. For example, students with severe

target problems are more likely to evoke consistent efforts on the part of school staff, to implement strategies necessary to eradicate the problem behavior (Reimers et al., 1987; Witt & Elliott, 1985). The authors noted that previous research has found that the more severe the target problem, the more likely teachers will be motivated to try to implement the strategies necessary to eradicate the problem. Similarly, Detrich (1999) argued that teachers might be more open to adhering to an intervention for students “who are more skilled than for students who are less skilled and may actually require greater intervention” (p. 609). The time in which an intervention requires to be implemented is another key variable impacting levels of acceptance. Interventions that are relatively easy and require less teacher time are observed to be greatly favored over lengthier interventions (Detrich, 1999).

Another important variable related to treatment acceptability is the compatibility of the variables of an intervention with the classroom culture. Teachers will tend to accept and utilize strategies similar to those with which they have had previous success. According to Detrich (1999), “Intervention methods that are similar to current cultural practices are more likely to be incorporated into a classroom relative to practices that are considerably different.” (p. 610). Utilizing interventions that are similar to the classroom culture also increases the likelihood teachers will implement the strategy with integrity as the intervention may represent practices that “...have been most successful for the teaching staff given their knowledge of the option...represent the teaching staff’s previous training...and may require less effort than other methods...” (p.611). Similarly, interventions that are in harmony with the current classroom culture are likely to require resources that are both familiar and accessible by teachers. The familiarity and

accessibility of resources needed for a specific intervention will aid in the teacher's willingness to accept and adhere to the intervention implementation strategies, based on the familiarity and ease with which the necessary resources can be acquired. Classroom resources to be considered include such variables as time, staff, and budget.

### Second Step: A Violence Prevention Curriculum

Second Step is a violence prevention originally developed by the Committee for Children. A form of the currently used Second Step curriculum was initially published in 1986 to target students who are in kindergarten through the eighth grade. Second Step is a social skills training program utilizing social skills training for the purposes of reducing school violence while increasing the social and emotional well being of the student-participants. The program is available for both English and Spanish speaking populations, with Danish and Japanese language versions in development. While Second Step is used primarily in schools, the additional family guide and training allows for the continued language and problem solving steps to be utilized outside of school and in the home and community at large.

The Second Step curriculum developed in part based on the pioneering work of Dr. Jennifer James. Dr. James conducted her dissertation work in anthropology on the issue of child prostitutes. Her research group found that most of those kids had been sexually abused at home. She observed that child prostitutes were actually children who had run away from home and in an attempt to escape the abuse they experienced at home, they became involved in another form of victimization. Dr. James helped to organize The Judicial Advocates for Women, a coalition whose goal was to bring media attention to the plight of adult and children prostitutes. The coalition changed its focus to children



who were being sexually abuse, and in 1981- *Talk About Touching* was published. The coalition changed its name to Committee for Children because of the change in focus from prostitution to issues surrounding the protection of children from becoming abused. Second Step then developed as an effort to prevent children from growing up to become violent offenders and abusers.

According to Frey, Hirschstein, and Guzzo (2000), the aim of Second Step is “to foster development of the social-emotional skills necessary for students to lead successful and satisfying lives” (p. 102). The curriculum focuses on teaching skills related to empathy, impulse control and anger management. These content areas are addressed with the purpose of reducing impulsive behavior and aggression while increasing social competence. School psychologists, classroom teachers or counselors may teach the lessons. For students in preschool and elementary school, the lessons are presented through the use of a photo card. The photo card is shown while a story printed on the back of the card regarding the photo is read. In most cases, the photo demonstrates students who are in some sort of conflict with one another. After the story is read, the facilitator then follows the lesson steps also listed on the back of the card. Included in each lesson steps are teacher modeling of the skills, discussion, and role-plays. Research suggests that the story telling format is useful in teaching children about their emotions (Brown & Dunn, 1996).

There are approximately 20 lessons for each grade level, and the lessons follow one another in a sequential manner. The lessons should be taught in the order intended, given their sequential format. Each lesson can last between 20 minutes to 50 minutes long, with longer time lengths extended for students at the middle school level. The

optimal implementation schedule as suggested by the Committee for Children (1992) would be to present no more than two lessons each week. The three main content areas of the program are empathy, impulse control and problem solving, and emotion management or anger management.

Empathy is the first core area addressed by the Second Step curriculum. As observed by Frey and colleagues (2000), empathy is a much needed skill when acquiring and refining social competence as it aids in attending, comprehending and suitably responding to the emotions and actions of others. Lessons on empathy teach students how to recognize the feelings in self and in others, considering others' perspectives, and responding emotionally to others. First, the students are taught to identify various emotions. Second, the students communicate their interpretation of the feelings of others in order to receive feedback and guidance. Next, students hear short stories in which the emphasis is placed on some aspect of feelings (e.g., how feelings can change over time, or how one student may feel entirely different to the same event in comparison to his or her friend). Finally, students are provided with the opportunity to role-play various social situations in order to practice their perspective-taking skills.

In the area of social problem solving, students are taught a five-step problem solving strategy to use in processing and understanding social information. Students are taught to engage in self-talk as they proceed with the five-step process and focus on: a) identifying of the problem, b) brainstorming various solutions; c) evaluating each of the solutions by asking the following questions- "Is it safe?" "Is it fair?" "How might it make people feel?" and "Will it work?"; d) selecting and trying a plan; e) evaluating the plan to see if it worked and to determine what should be done next. The skill lessons in this

content area provide students with the opportunity to practice each of these skill steps, while receiving feedback on their performances.

Finally, students are taught anger management techniques in which strategies to reduce stress and manage anger are emphasized. The anger management skills are designed to help students when they are angry by focusing on cues provided by their own bodies (e.g., heart is racing, sweaty palms, etc.). These signs and cues can then be used as a signal that it is time to practice the anger management strategies previously taught. Such strategies include engaging in self-talk or making other positive statements to calm down prior to reacting to a stressful situation or event.

Second Step utilizes many of the lesson components outlined by Ladd and Mize (1983). In the area of defining the skill concept, Second Step provides students with the vocabulary needed to identify and talk about their feelings, as well as the feelings of others. The concept meanings of various skills are always introduced at the beginning of each lesson, with opportunities for students to talk about their understanding of the new concept (e.g., how to deal with angry feelings). Opportunities to identify positive and negative examples of a skill lesson are provided in some of the lesson steps. For many of the lessons, there are opportunities for guided practice through the use of role plays or activities in which the new skill can be utilized. Corrective feedback from teachers is often encouraged throughout the lesson, particularly as a part of the role plays. Fostering skill maintenance/generalization can occur through the use of Transfer of Training, Activities or Homework strategies identified on many of the lesson cards.

Similarities between Elias and Clabby's (1993) framework for teaching social problem solving and Second Step also exist. Elias and Clabby's first phase of teaching

self-control skills are highlighted in the second and third lesson units (i.e., Impulse Control and Anger Management) of the Second Step curriculum. The second phase of Elias and Clabby's framework emphasizes teaching social awareness and group participation skills occurs at the outset of teaching Second Step, as the initial lesson provides an outline for discussing appropriate ways for students to participate in a group setting while Second Step is taught. Finally, Elias and Clabby's third teaching phase, social decision-making and problem-solving, is emphasized during all three units (i.e., Empathy, Impulse Control and Anger Management). The Empathy unit teaches students how to identify and process social cues from others while the Impulse Control and Anger Management units teach students how to handle their frustrations and anger during conflicts with others.

#### Research on Second Step

Although Second Step has been identified as a highly researched social skills training tool by its developers, a review of literature has identified the only empirical study conducted by Grossman et al. (1997). Grossman and colleagues examined the effectiveness of Second Step among 12 urban and suburban elementary schools located in the state of Washington. The purpose of the study was to identify whether or not Second Step can effectively reduce aggression and increase prosocial behavior among second and third grade students. Specifically, the researchers wanted to see if there were any changes from the baseline rates of aggressive, neutral and prosocial behavior as measured by direct observation. The student population sampled included 79% Caucasian and 53% male. The schools were randomly selected if they had no prior experience with the curriculum or any other curriculum that was closely related, the school administrator and

staff agreed to participate, the school had at least four- second and third grade classrooms, and the school agreed to refrain from conducting additional curricula related to violence prevention or anger management during the course of the study. At the beginning of baseline data, parental consent was obtained for approximately 418 students at the intervention schools and 372 students in the control schools. Although the two groups were relatively homogeneous in the areas of age, sex, and teacher reported behavior problems as well as other socioeconomic variables, there was a higher percentage of special education and African American students at the control schools versus a higher percentage of Asian American students at the intervention schools. Treatment effects were examined during baseline (T<sub>0</sub>), two weeks after the curriculum was completed (T<sub>1</sub>) and six months after the completion of the curriculum (T<sub>2</sub>).

The Second Step curriculum was presented upwards of twice a week for approximately 35 minutes. There were 30 lessons in all that were presented. Classroom teachers completed the curriculum within a 16- to 20-week period. Evaluation data was collected from parents who were administered the Achenbach Child Behavior Check List (CBCL) and the Parent-Child Rating Scale (P-CRS). Classroom teachers were required to complete the School Social Behavior Scales (SSBS) and the Achenbach Teacher Report Form (TRF). Finally, direct behavioral observations conducted by 8 to 12 trained observers who utilized the Social Interaction Observation System, were also used to obtain data regarding prosocial and neutral behaviors. The observed obtained 60-minutes of observational data for each child who was selected to be monitored. Interobserver agreement was obtained across the 3 data sampling periods. Covariate data including special education or learning disorders by teacher report, behavioral problems by teacher

report, demographic data, classroom atmosphere, and academic performance, were also obtained.

The results of this evaluation demonstrated similar levels of social competence between the control and experimental schools, during the baseline data collections. No significant behavioral changes were observed in this area when teacher and parental baseline data were compared to the post-intervention data. Behavioral observations revealed an overall decrease in rates of negative behavior for students in the intervention group when compared to students in the control group. Similarly, the students in the control group were observed to have increased negative behavior throughout the experimental period.

#### Limitations of the Second Step Research

Grossman and colleagues (1997) highlighted several limitations of their study. First, the selection criteria used to determine which schools were eligible to participate may have yielded, in the authors' opinion, an atypical set of classrooms and students. Second, no data was collected identifying which curriculum lessons were most correlated with the behavioral change. Third, the overall participation from T0 to T2 decreased to approximately 66%, which may have indirectly influenced the results. Although the type of influence on the outcome of this study is largely unknown, it might be possible that the attrition rate resulted in the dominance of student participants without significant behavioral difficulties. Students who typically do not demonstrate significant behavioral problems do not comprise the target audience for most social skills training programs, as they will continue to demonstrate prosocial skills even in the absence of additional training. Fourth, the authors posed the possibility of observational error, which may have

positively impacted the results of this experiment. Finally, no information was provided regarding the treatment integrity levels used by the teachers teaching Second Step, or the degree to which Second Step was accepted by the teachers.

### Summary

Decreasing school violence is an area of concern plaguing most schools. Violence appears in various forms including physical altercations, sexual harassment and verbal taunting. Although various interventions have been developed to address this area of concern, social skills training and violence prevention programs appear to be the most popular types of interventions used among schools. Many social skills training programs such as Skillstreaming (McGinnis & Goldstein, 1997) and ICPS (Shure, 1992) utilize social learning theory in that appropriate social skills are modeled by the teachers and practiced by the students in order to assist with acquisition and generalization of the targeted prosocial skill or problem solving method. The Second Step curriculum (Committee for Children, 1992), also utilizes social learning theory as its foundation in that students are also taught, modeled and provided the opportunity to practice skills related to empathy, anger management and impulse control.

Although there is a preponderance of research that demonstrates significant behavioral changes resulting from students who have participated in various social skills training programs, many studies fail to report information related to treatment integrity, or the steps implementers took when implementing the intervention (Gresham, 1989). Similarly, treatment acceptability is often not reported (Gajria & Salend, 2003). The Second Step curriculum (Committee for Children, 1992) was researched by Grossman and colleagues who were able to observe modest behavioral changes in students for as

long as a couple of months after the curriculum was taught. However, the study failed to identify the treatment integrity practices utilized in order to insure accurate replication of the study and the results. Information regarding treatment acceptability was also not provided. This present study will aid the research base by providing data regarding treatment integrity levels used by teachers when teaching the Second Step curriculum as well as the degree to which teachers found Second Step as an acceptable intervention. A secondary outcome of this study will be to provide additional data on the degree to which Second Step encourages a decrease in student aggression, as measured by suspension and office referral data.



## CHAPTER III

### Methodology

#### Chapter Summary

This study was proposed to explore the implementation of the Second Step Violence Prevention Program (Committee for Children, 1992) utilized in King County School District as a response to the over-referral of African-American males suspended from school. Second Step was initially introduced to King County in 1999. This research is specifically designed to address the following research questions: 1) What are teachers' perceived implementation practices when teaching the Second Step curriculum?; 2) To what degree is Second Step implemented with integrity?; 3) What are teachers' perceptions of the Second Step program?; 4) What is the degree of behavioral change obtained for students having participated in the Second Step curriculum, as measured by office referrals and suspension data? It is hypothesized that teachers who have high levels of treatment integrity will also have high levels of treatment acceptability as indicated in their responses during a focus group.

#### Design Overview

##### Purpose of Research

The purpose of this research is to provide an exploratory case study examining teachers' perceived treatment implementation practices when using the Second Step curriculum. Specifically, this research will examine the level of treatment integrity utilized by this study population. Use of a case study approach for this study provides a holistic account of events or patterns that show social supports and constraints. The case

study methodology also helps provide an understanding of how one event is linked to another in a particular setting and generally give the context of the particular topic. Because this study is examining teachers' perceptions of their implementation practices, the case study methodology will help to identify which supports positively impacted teachers' implementation styles while illuminating which constraints negatively impacted treatment implementation.

### Research Design

This study utilized a case study research design. This design was chosen for several reasons. First, the use of a case study design studies the complexity of a phenomenon, resulting in the understanding of important circumstances related to the case. According to Stake (1995), a case study provides the opportunity to examine a phenomenon or a case in order to understand what it is and what it does. The emphasis of a case study design is on understanding the case itself. This type of design should help to illuminate which implementation practices are readily utilized by teachers in a large urban school district, when using the Second Step curriculum with elementary school aged children. Second, this research design allows for an understanding of the interrelationship that exists between variables that may influence other phenomenon being studied. Charles and Mertler (2002) acknowledged that "Instead of merely knowing about someone or something, one wishes to know why the situation is as it is... a case study can help provide understanding by seeking out identifiable patterns" in a phenomenon, be it a behavior, implementation practices or procedures (p. 278). For purposes of this study, the case study approach will provide insight into which implementation practices teachers regularly utilize when teaching Second Step as well as

the degree of treatment integrity utilized when teaching this curriculum. Third, case studies provide the opportunity for a vicarious experience that will help readers to learn about intervention implementation practices and intervention acceptance as though they had a first-hand account of the phenomenon (Donmoyer, 1990). With regards to this research, future educators, administrators, school districts and school psychologist scientist-practitioners who are interested in implementing Second Step will be able to access information provided in this study in order to ascertain whether or not this program is suitable to their population, resources and needs.

Within this case study design, three types of data collection methods were utilized including classroom observations, focus groups with teachers and key informant interviews. For the purposes of this study, data source triangulation and investigator triangulation were utilized. The data source triangulation included the use of classroom observations of teachers implementing the Second Step curriculum, focus groups with teachers regarding their implementation practices when using Second Step, and key informant interviews with the principals at the two schools that were used for this study. Investigator triangulation was utilized as two research assistants were employed to examine approximately 20% of the classroom observations in conjunction with this evaluator. According to Stake (1995), the use of different data collection strategies provides triangulation as more than one data source increases the validity that the phenomenon being observed is an accurate representation of what typically occurs when the phenomenon is not being studied. Stake (1995) also acknowledged that when additional observers examine the same phenomenon, their reactions help to provide additional data for the case study.

### Program Description

The Second Step Violence Prevention Curriculum (Committee for Children, 1992) is a curriculum that targets students in grades preschool to nine. The emphasis of the program is on helping children change their attitudes and behaviors that contribute to violence. The theoretical foundation of Second Step is based largely on social learning theory. The program focuses on reducing school violence by teaching and modeling the skills necessary to develop better peer relations. There is also an opportunity during the implementation of this curriculum for students to practice these new relationship skills. The skill lessons in the curriculum provide a context of social and emotional skills needed for the two-fold goal of decreasing impulsive and aggressive behaviors, while increasing students' degree of social competence.

Second Step provides students with the opportunities to view demonstrations of positive behaviors (i.e., modeling), to practice these appropriate behaviors and to receive positive feedback. The lessons fit into one of three content areas, including empathy, impulse control, and anger management. The lessons on empathy help students to identify feelings from a variety of physical (face, body) and situational cues, recognize that people may have different feelings about the same thing, recognize that feelings change and identify the reasons why this occurs, predict feelings, understand that people may have different preferences, identify the intentionality of an act, apply fairness rules in simple situations, communicate feelings using "I" messages and listen to another person, and express care and concern for others. The Impulse Control unit helps students to identify skills necessary to work out a problem with others. The Anger Management

unit teaches students skills needed to effectively handle their anger when presented with frustrating situations. A detailed overview of the curriculum is provided in Appendix A.

### Setting of the Case Study

Two schools from a large urban school district in the western United States were utilized for the purpose of this study. There are approximately 54,000 students enrolled in schools throughout this school district during the 2002-2003 school year. The median family income in 2000 for this urban city as reported by the US Census was \$59,159. The district wide eligibility for free or reduced lunch is 59.4%.

The school district includes 62 elementary schools, 14 middle schools and six high schools. There are also 16 existing charter schools, and eight autonomous small schools. Autonomous schools utilize a small governing board of eight to nine individuals, consisting of the principal, parents, teachers, and community activists in making decisions regarding program funding and staffing. These schools limit their student body enrollment to approximately 300 or less students. The racial composition of students in King County School District includes 48.4% African American/Non-Hispanic, .4% American Indian/Alaskan Native, 18% Asian/Pacific Islander, 26.6% Hispanic, and 5.6% White/Non-Hispanic. Although African American students represent 48.4% of the total student body population, according to the school district's data on student suspensions as listed on its web site, African Americans represent approximately 75% of the students who have been suspended on an annual basis from 1998 to 2003, from school for a violation of one of the state's educational codes.

### General Characteristics of the Study Population

The two schools utilized for this study are less than 10 miles apart from one another. Although each school is in a different police precinct, both schools are in high crime areas. Table 1 provides a chart of some of the crime activity in these two neighborhoods. For example from July 1, 2002 until July 1, 2003, there were 30 car jackings in the police precinct for Coble School, and 31 incidents near Lewis School. There were 89 cases of domestic violence in neighborhood A, and 71 cases in neighborhood B. Twenty-one cases of homicide were reported in near Coble School versus seven cases near Lewis School. Finally, there were 24 cases of forcible rape near Coble School versus 18 cases reported near Lewis School.

Table 1

#### Selected Crime Statistics Around the School Neighborhoods from July 1, 2002 to July 1, 2003

School	Car Jackings	Domestic Violence	Forcible Rape	Homicide
Coble School	30	89	24	21
Lewis School	31	71	18	7

Coble School- Table 2 provides a composite of the neighborhood characteristics. According to the 2000 US Census, 77% of the residents in this neighborhood were born in the United States. The medium family income as recorded in 1999 of the families living in this neighborhood is \$42,000. The percentage of families living below the poverty level is at 16%. Fifty-six percent of the people living in this neighborhood have graduated from high school and may have received some college training. The language

composition of individuals in this neighborhood includes approximately 39% English only.

Coble School is located in a very multicultural neighborhood not too far from a major highway. It is two blocks from two major streets, and there is a constant flow of traffic around the school. On one of the main streets surrounding Coble School, there are a variety of stores selling party supplies, food and gasoline. The school is surrounded by single-family homes and there is a small church across the street from the front entrance to the school.

Table 2

Neighborhood Characteristics of Coble School and Lewis School in 2002

School	High School Graduates	English Language Only	Spanish Language	Asian/Pacific Island Language	Other
Coble School	56%	39.1%	41.8%	16.4%	2.7%
Lewis School	83%	66.6%	7.2%	19.09%	7.11%

Coble School consists of a large one-level building that houses the main and administrator offices, the cafeteria/multipurpose room, teachers lounge, library, kindergarten through second grade. Coble School also has several portables. The portables house many of the upper grades (e.g., grades 3-5). Two of the kindergarten classrooms are housed in the portables. The playground area consists of a large concrete area with a few trees and a couple of play structures (i.e., monkey bars).

Coble School has a population of approximately 929 students. There is one principal and two assistant principals. Seventy percent of the students at this school

participate in the free lunch program. Table 3 provides a racial breakdown of the student population. The majority of the students represented at this school are Hispanic/Latino. Some of the racial groups that comprise the other category listed in Table 3 include Caucasian American and Arabic students. The mobility rate for the school, or the rate in which students transfer into and out of Coble School, is approximately 9% compared to the state's average, which is 15%.

Table 3

Student Ethnicity/Race of Coble School 2002-2003

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Ethnicity/Race	Percentage
African American	13%
Asian	9%
Filipino	1%
Hispanic	75%
Native American	1%
Pacific Islander	1%
White	1%
Mixed or No Response	0%

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Source: Inside [County] Area Schools- Note percentages for this school as listed by source are greater than 100%.

Of the 40 teachers at Coble School, most are Caucasian Americans, and two are African American. Seventy-three percent of the teachers at Coble School have a full teaching credential, compared to the state average of 88%. The school consists of three types of classes, including bilingual classes for Spanish speakers, in which the instruction is provided primarily in Spanish, sheltered classes in which the lessons are presented in



English, and dual immersion in which some Spanish is used during instruction. The school has approximately 10 students per computer, compared to the state's average, which is 6.9 students per computer.

\*Ms. Landmark, the principal at Coble School, has been the school's administrator for the past three years. She was introduced to the Second Step curriculum by a school district consultant. Ms. Landmark had previously established a relationship with \*Ms. Christianson, one of the school district's Second Step consultant, as Ms. Christianson had worked as a parent volunteer at Ms. Landmark's former school. Given their personal history and friendship, Ms. Christianson approached Ms. Landmark after Ms. Christianson had been hired by the school district, to see if Ms. Landmark was interested in utilizing Second Step in her school. Ms. Landmark readily agreed. Ms. Landmark helped to train the new principal of her former school, and signed many of the teachers at Coble School to attend a weekend retreat that focused on receiving training from Second Step. The weekend retreat/two day training occurred during the summer of the 2001-2002 school year. The teachers received a one-day training during the 2002-2003 school year.

Prior to using Second Step, Coble School had been relying on conflict managers. Conflict managers are students who are trained by a teacher in ways of helping students to handle their difficulties with other students in an appropriate manner. Conflict managers are present during the afternoon lunch recess hour and usually consist of fourth and fifth grade students. These students often wear an article of clothing (e.g., a green colored T-Shirt) identifying them as conflict managers. These students typically meet

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\* Name changed to protect identity.

with their supervising teacher on a weekly basis. The students are trained on how to approach students who are having difficulty and ask these students if they would like to solve their problems with a conflict manager. The conflict managers then take the students through a problem solving process in which they ask the students who happened, how would they handle it the next time, what did they like and not like about what occurred.

Lewis School- The US Census Bureau reported that in 1999, the medium family income of families residing near Lewis School was \$68,000. Eighty-three percent of the people living in this neighborhood have received a high school or college education. The language composition of individuals in this neighborhood includes 66.6% English only.

Lewis School is located in a scenic and relatively quiet neighborhood that is approximately five miles south of a large Greek Orthodox Church. Lewis School is three blocks north of a major street. There are many single-family homes in the immediate area. The school itself is a relatively modern structure that rests on two floors. The lower grades (i.e., kindergarten through second) are housed on the first level, while the upper grades are housed on the second floor. There is a library, cafeteria, and multipurpose room. The school has one computer per every 13 students. The playground area consists of a large enclosed concrete play area with a couple of play structures.

Lewis School consists of approximately 333 students. There is one principal and no assistant principal at this school. Fifty-one percent of the students at Lewis School are eligible to participate in the free lunch program. Table 4 provides a chart of the racial breakdown of the student population. The largest racial composition of this school consists of approximately 45% African American. The mobility rate of students at Lewis

School is 15%. There are 16 regular education classes and one site-based day treatment program for emotionally disturbed students. All of the 16 regular education classrooms are sheltered or English only. There are no bilingual programs at Lewis School. Ninety-five percent of teachers have a full teaching credential.

\*Ms. Studdard, principal at Lewis School, has been the administrator of this school for over a decade. She was contacted by Ms. Christianson about the possibility of using Second Step and agreed to participate in a training during the 2001-2002 school year. The teachers at Lewis School received a six-hour training including a half-day training before the school year began, and a half-day training in October 2001. The principal felt that the teachers really liked the program and decided to adopt it into their school wide plan. Prior to implementing Second Step, the teachers were using conflict managers.

Table 4

Student Ethnicity/Race of Lewis School 2002-2003

Ethnicity/Race	Percentage
African American	45%
Asian	22%
Filipino	2%
Hispanic	11%
Native American	1%
Pacific Islander	5%
White	13%
Mixed or No Response	1%

Source: Inside [County] Area Schools

### Sampling

The two intervention schools were selected on the basis of having one year's prior experience with implementing Second Step during the 2002-2003 school year, interest in utilizing Second Step during this academic school year, and willingness to participate in this study. The district consultant who was responsible for introducing Second Step to schools was contacted to ascertain which schools would be good candidates for study. The consultant suggested Coble School and Lewis School, given their previous experience with Second Step and their commitment to using the program on a school-wide basis. The principals were contacted both in person and with a letter of introduction to the nature of my study. After agreement to participate was secured with the principals, the Second Step coordinator for each school was contacted in order to obtain teacher-participants for the focus groups and classroom observations. The coordinator then made person-to-person contacts with teachers at their respective schools. Each teacher was paid \$25.00 for participation in this study. A total of nine teachers were initially used for this study. These teachers each provided Second Step in English using the English version kits. Volunteers were secured by person-to-person contacts with both the school's Second Step coordinator or by this researcher. The first group at Coble School consisted of teachers in grades kindergarten, second, third as well as one special education teacher. Two classroom observations were conducted on the two third grade teachers from Coble School. The special education teacher was dropped from the observation pool, as there was no comparison from Lewis School. The kindergarten and second grade teachers were also not included in the observation pool due to scheduling conflicts that prevented the completion of our observations. These three teachers were

Table 5

Teacher Participants, Grade Taught and Number of Years Teaching

Teacher	Grade	Years Teaching
Coble School		
Ms. Nees	3	20+
Mr. Suki	3	2
Mr. Tracy	4	First year
Ms. Only	3	2
Ms. Cho	3	First year
Lewis School		
	Grade	
Ms. Bowman	2	10+
Ms. Chavez	4	10+
Ms. Edgar	5	20+
Ms. Fremont	5	15+

then replaced with three other teachers, one of whom taught fourth grade, the other teachers taught third grade, who participated in a separate focus group and were also observed two times as they taught Second Step lessons. There were five teachers who participated in the teacher focus group at Lewis School. These teachers taught grades two, four and five. Two of the teachers taught fifth grade. Four of the five teachers were observed twice during a Second Step lessons. One first grade teacher was unable to be observed for a second time due to scheduling conflicts and was therefore not used as part

of this study. The classroom observations were conducted after teachers participated in a focus group. Table 5 provides a final composite of the teachers used in the study. The names of all of the teachers were changed to protect their identity.

The administrators at each school were utilized for key informant interviews. They were not paid for their participation in this study. The administrators and teachers were both told that neither their names, the name of their school, nor the name of the school's district would be utilized for this study.

### Measures

In order to address each of the research questions, triangulation of data collection procedures were utilized (See Table 6 for a listing of research variables and measures).

Classroom Observations- The first research question addresses the issue of treatment implementation. In order to address this question, a classroom observation checklist was designed (see Appendix B and C). This checklist included specific lesson areas which are also elements of social learning theory (Bandura, 1986) that relate to behavior change in students, including a place to note the modeling of a skill, practice of the modeled skill and teacher feedback of the practiced skill. The classroom observation measure was developed based on the Second Step Lesson Presentation Evaluation listed in the Appendix of the Second Step Teacher's Guide. The Second Step Lesson Presentation Evaluation checklist is to be used by a Second Step peer coach (i.e., another teacher or counselor who also uses the Second Step curriculum) for the purposes of providing the teacher feedback on their presentation of lessons. The form can also be used as a self- evaluation.

Table 6

Research Questions and Measures

Research Question	Measure	Data Analysis
1) What are teachers' perceived implementation practices?	Focus groups Administrator interviews	Coded for themes dealing with implementation practices
2) To what degree do teachers at Schools A and B implement Second Step with integrity?	Classroom Observations	Level of implementation assessed to determine the degree to which the 7 parts of a Second Step lesson presentation were utilized
3) What are teachers' perceptions of the Second Step program?	Focus groups Administrator interviews	Coded for themes related to teacher acceptability of program
4) What is the degree of behavioral changes obtained for students having participated in the Second Step curriculum?	Office referrals & Suspension records	Multiple baseline across schools from non-implementation year to T <sub>2</sub>

The Second Step Lesson Presentation Evaluation form presents 11 key areas in which the teacher's presentation can be judged. The 11 areas include a) story and discussion; b) teacher role play; c) student role plays; d) activity; e) transfer of training; f) followed lesson; g) met lesson objectives; h) praise for the teacher; i) suggestions and ideas for the teacher to strengthen the lesson; j) Teacher, what do you feel were your strengths?; k) Teacher, what would you like to improve? Each of the first five areas listed on the Second Step Lesson Presentation Evaluation checklist also have listed one or more specific areas or probes to address specific presentation practices that should be

assessed. Given that the classroom observations were designed to focus on teacher implementation practices, the Second Step Lesson Presentation Evaluation protocol key areas numbered six through 11 were omitted from the initial classroom observation protocol.

The story and discussion area was separated into two areas for the classroom observation protocol. This allowed for specific implementation information to be obtained in both of these areas. An additional item entitled Home (distributed the suggested take-home letters) was included on the classroom observation protocol as this was a part of many of the Second Step lesson presentation practices. Some of the probes outlined on the Second Step Lesson Presentation Evaluation checklist were utilized for the pilot protocol. Only probes that were related to how the teacher was teaching the curriculum were retained for the pilot classroom observation checklist. Specific discussion questions from each of the individual lessons were initially incorporated in the discussion section of the pilot protocol. Finally, probes for each of the seven content areas of the pilot protocol that were related to intervention implementation were incorporated from the scope and sequence of the curriculum lesson.

Teacher Focus Groups- An example of the final teacher focus group protocol is provided in Appendix D. The focus group questions consisted of items that are related to perceptions of implementation practices and acceptability of the intervention, including variables related to the degree of support the administration is providing for teachers who choose to implement the program, the level of involvement of the students' parents as well as suggestions for improvement in the implementation of the curriculum. Examples of the seven main questions asked as part of this interview include: 1) How did you teach



Second Step this year?; 2) How were the students involved with the lessons?; 3) How did you involve parents in your Second Step Curriculum?; 4) If you could improve the curriculum, including how it is implemented, what would you do?; 5) What do you remember about the Second Step curriculum, from your perspective?; 6) How did the curriculum affect the school climate here at your school?; 7) How did teaching the curriculum affect you personally? Each of these seven questions had a series of three or more probes to provide additional information related to the main question.

Key Informant Interviews- Key informant interviews with each school's administrator were also conducted to determine the administrators' perceptions of the utility of the Second Step program as well as their beliefs about how well teachers are implementing the program. Questions were developed to gain further understanding of the implementation practices of the teachers as well as to obtain a historical perspective of how the schools came to adopt Second Step and what type of intervention(s) was in place prior to adopting Second Step.

Office Referrals and Suspension Records- The third area of interest is the degree to which the Second Step program assists in increasing prosocial skills while decreasing negative behavior at school. This position was studied through the evaluation of office referrals and suspension data during the academic years from 2000 to 2003. The office referral procedure for Coble School typically begins with a formal letter written in both English and Spanish that is sent home to the student's parent(s). This letter informs the parent that their child was having a problem at school for one of the following reasons: a) late to class; b) out of seat too often; c) talking without permission; d) rude to teacher; e) homework incomplete; f) class work incomplete; g) poor attitude toward work; h) failure

to follow directions within reasonable time; i) generally disrupting the class; j) stealing from classmates; k) obscene language or gestures; l) abuse of class furniture, games, material, etc.; m) other. Four examples of possible consequences that could be or were used are also provided. These consequences include: a) is suspended from one class for one day by his/her teacher; b) is to have one day time-out at home; c) had time-out in the office; d) was benched all recess. The principal and the student's parents are both required to sign the form.

If a teacher perceives that an office visit is warranted for any of his/her students due to the severity of their behavioral infraction, an office referral note typically accompanies that child to the office. This office referral form consists of the student's name, grade, room, teacher, time left and date. Space for the reason for the referral is also provided as is space for the final disposition (e.g., sent back to class, phone call to parent at work/home, etc.). The student is also required to write a letter explaining their version of what occurred. For the letter, the student is asked to describe the incident, to express the feelings that he/she was experiencing during the incident, and to identify what changes occurred and to state some appropriate consequences for the student's behavioral infraction. The student's behavioral difficulty is then classified into one of the following categories: 1) fighting; 2) disruptive/disobey; 3) stealing; 4) throwing; 5) teasing; 6) sexual harassment. Suspension data is collected from the official district's suspension form in which the student's name, date of the incident, summary of incident and category of behavioral infraction and disposition are listed. The categories for behavior warranting suspension were taken directly from the state's educational code. Examples of behavior warranting suspension include caused or attempted to cause damage to school

or private property, caused, attempted or threatened physical injury to another person, and willfully used force or violence upon another person, except in self-defense.

The school referral form used by Lewis School is to accompany each student when they are sent to the office, to a buddy class, or to detention. The reasons for referral as listed on this form include: 1) defiance, refusal to follow directions; 2) disturbing the class; 3) fighting or play-fighting; 4) violation of traffic or cafeteria rules; 5) spitting; 6) stealing; 7) needs cool off; 8) leaving school ground without permission; 9) unsafe conduct; 10) not following playground rules; 11) using inappropriate language; 12) destroying/vandalizing property; 13) other. Possible actions taken by teachers listed on the referral form include warned student, changed seats, conflict managers, time-out in class, restricted from\_\_\_\_\_, benching, or detention. Another category listed as action taken by other includes student warned/behavior recorded; suspended in house or district, and parent notified by letter or phone. The teacher maintains one copy of the referral form as does the office. Lewis School also uses a form entitled “Benching Form” for students who are asked to sit on a bench during recess. The reason for referral used on the Benching Form includes being in an unauthorized area before, during, or after school, disruptive behavior, rough playing, play fighting, violation of playground, cafeteria or traffic rules, verbal abuse or discourtesy to other students and adults, use of profanities or vulgarities, and not sitting when benched. These forms are used during the 10am morning recess, the 11:30am lunch recess and the 1:35pm afternoon recess time periods. Suggested alternatives to benching are also listed on the forms. This note states, “Whenever possible, please encourage students to use I-Messages and Conflict Resolution. Giving students logical consequences (for example, no field trip form turned

in, no field trip) can also be an effective way to curb misbehavior.” Lewis School also utilizes the district’s official suspension form when suspending students. The frequency with which these types of referrals have occurred will be evaluated to determine any statistical difference between the three academic years.

### Procedures

Piloting of Research Measures- Prior to utilizing the classroom observation measure with the teacher sample, a pilot trial was conducted by this examiner in April 2003. As part of the pilot testing, the classroom observation protocol was used with a kindergarten teacher at Ebenezer School, an elementary school in the same district as the two schools used in this study. Ebenezer School was not utilized as part of this study. This kindergarten teacher has used Second Step throughout the school year therefore her students were familiar with the lesson structure.

Prior to beginning the lesson, the teacher told this researcher which lesson she wanted to use. However, the classroom observation protocol that was available was appropriate for the first lesson for the Empathy unit. Therefore, it was determined that the unit name, lesson title and lesson number should remain blank so that any changes in the lesson that would be presented could be adequately recorded. The pilot classroom observation protocol proved cumbersome especially when needing to identify whether or not each of the discussion questions listed on the protocol were asked. In an effort to make the protocol user-friendly, it was therefore determined to change the Discussion section so that each examiner could tally the number of questions and statements made by the classroom teacher. By using the lesson skill card during the observation of the

Discussion portion of the lesson, each examiner would have the tools needed to identify how many of the Discussion questions or statements were made.

A point system was utilized during the pilot to measure the degree to which an implementation practice was conducted. The point system included three points if all items of the specific area of focus were implemented during the lesson, two points for moderate implementation (i.e., 75% or greater or 3-4 items/times), one point if the area of focus was somewhat presented (i.e., 50-75% or 1-2 items/times), or zero points if the area of focus was not presented or was only briefly mentioned during the lesson (i.e., less than 50% or 0-1). This point system was adopted for the final classroom observation protocol listed in Appendix C. The time that the lesson began, the number of students, the grade and the time that the lesson ended were also added to the pilot protocol and retained for the final observation protocol. Space was also provided to record which materials were utilized for each of the lesson presentations. Although not specifically written on the classroom observation protocol, the number of student role plays was also recorded. This information was written in the margin of each protocol. Finally, additional anecdotal notes were written in the margins or at the bottom of each protocol.

Further piloting of the observational checklist was conducted by using it with a 45-minute videotape of a Second Step presentation. The videotape of the Second Step presentation demonstrated the evaluator teaching an entire skill lesson to 3 fourth grade students and 1 fifth grade student. The students' guardian was contacted in order to obtain permission to utilize the students for the training video. The students and their guardian were informed that the videotape would be used for training purposes only. Only the first names of the students were used during this videotape. This examiner then

reviewed the videotape using the new classroom observation protocol listed in Appendix C in order to ensure that the protocol accurately captured implementation practices and levels.

Training of Research Assistants- Two research assistants were utilized to obtain reliability checks during some of the classroom observations. One of the research assistants is an undergraduate education major while the other assistant has received some graduate school training. Each of the research assistants were provided with a one hour discussion and overview of the curriculum in which several of the lessons from the first through third grade kit and the fourth through fifth grade kit were reviewed. The research assistants were then asked to rate the 45-minute Second Step videotaped lesson presentation using the classroom observation protocol. The assistants' responses on the observation protocol were reviewed and any questions were addressed.

Teacher Focus Groups- The teachers' perceptions regarding the degree to which they are implementing Second Step with integrity were assessed through teacher focus groups. The focus group protocol was also utilized to obtain information related to the teacher's acceptability of the Second Step curriculum. Focus groups were conducted in May and June. Each focus group was facilitated by the examiner and occurred immediately after school. The focus group lasted approximately 60 minutes and included open- and closed-ended questions that examined treatment integrity practices and treatment acceptability. There were five teachers present for the first focus group conducted at Coble School and five teachers present for the focus group conducted at Lewis School. Due to the inability to schedule and complete two classroom observations for three teachers from Coble School, a second focus group with three additional teachers

from Coble School was developed. Each focus group was audio taped and transcribed for qualitative analysis.

Classroom Observations- Classroom observations were conducted during the months of May and June. Five teachers from Coble School were observed and four teachers from Lewis School were observed. Each teacher was observed twice. An additional teacher from Lewis School was observed, however given scheduling conflicts, this teacher was only observed once and was therefore not used for this study. The observations lasted anywhere from 15- to 70-minutes, depending on the amount of time the teacher used in teaching the lesson. The observations were coded according to the classroom observation checklist listed in Appendix C. Classroom observations were conducted after participation in the focus group for participants in the first two focus groups at both of the program schools. The observations of the three teachers in the second focus group at Coble School were conducted prior to participation in the focus group. Teachers were given letters to parents to explain the purpose and nature of this study (see Appendix G).

Reliability checks on 20% of the observations (i.e., four out of 19) were conducted in tandem by this researcher and one of the research assistants to determine the degree to which the lesson was implemented as it was intended. Reliability of the classroom observations was obtained by dividing the total number of agreements for the components implemented by teachers (i.e., lesson components marked with a “Yes,” “No” or “N/A” to indicate that the teacher implemented a component, did not implement a component or the component was not applicable to the lesson, respectively), by the total

number of agreements plus disagreements. An opportunity to discuss ratings of lesson observations occurred immediately after exiting each classroom.

For the first observation conducted with a research assistant, inter-rater reliability was calculated at 100%. Inter-rater reliability was calculated at 89% for the second observation. The area of disagreement was in teacher feedback. Although both the research and research assistant indicated that the teacher made comments to the students, the research assistant did not perceive the comment to be relevant to the role play and marked “No” on the gave children feedback and asked students to evaluate their own performance. Inter-rater reliability was calculated at 85% for the third observation. The areas of disagreement included having all the materials needed, reading the prompt before role play and pointing out steps before and after role play. Finally, inter-rater reliability was calculated at 95% for the fourth observation. The area of disagreement was the lack of necessary materials for the lesson.

Key Informant Interviews- Finally, key informant interviews with each school’s administrator were also conducted to determine the administrators’ perceptions of the utility of the Second Step program as well as their beliefs about how well teachers are implementing the program. This data was also used in examining teachers’ acceptability of the Second Step curriculum as well as any difficulties with the program (e.g., difficulty acquiring resources needed to implement program, etc.). Key informant interviews were conducted at the conclusion of the school year in June or July. The administrators were audio taped during the 30-minute structured interview. Open and closed-ended questions were asked during this interview. Interviews with the district coaches were not conducted, as they were not utilized in both schools.



Office Referrals and Suspension Records- The third area of interest was the degree in which the Second Step program assisted in decreasing negative behavior at school. This position was studied through the evaluation of office referrals and suspension data during the academic years from 2000 to 2003. A review of office referral data and suspension information was collected to determine the degree to which any significant decrease in negative behaviors had occurred during the non-program (e.g., 2000-2001) and two program years (e.g., from 2001-2003).

#### Data Analysis

Table 6 provides a listing of research questions along with the data analysis strategies that were used. To address the second research question (To what degree is Second Step implemented with integrity?), classroom observational data was collected to examine which of the seven core components of a Second Step lesson are regularly utilized by teachers. In addition to utilizing the observational data, focus group data were also used to address both the first (What are teachers' perceived implementation practices?) and second research question. Focus group data was examined to study teachers' acceptability of the Second Step program as addressed in the third research question (What are teachers' perceptions of the Second Step program?). Key informant interviews were conducted with each of the school's administrators because of their expertise and knowledge of the school including general curriculum implementation strategies, resources required to implement an intervention, and difficulties implementing the program on a school wide basis. However, this data did not provide any additional information regarding teachers' implementation practices and was therefore utilized as historical information regarding how Second Step was introduced to each school.

Qualitative data analyses in which coding of data according to prominent and reoccurring themes were conducted with the focus group data and the key informant data to address the first research question. According to Yin (2003), the use of an empirical inquiry helps to investigate a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident. Stake (1985) commented that this type of theme analysis is often conducted as a “search for patterns, for consistency within certain condition...[and] For the evidence most critical to our assertions, we isolate those repetitions and those correspondence tables most pertinent, challenging ourselves to the adequacy of these data for that ascertainment” (p. 78). The ultimate goal in analyzing the focus group data is to gain a broader understanding of implementation behaviors, issues and contexts with regard to teachers’ perceived implementation practices when using the Second Step curriculum. The qualitative coding schema used for this study consisted of 15 categories that examined implementation practices including problems that occurred during program implementation. These categories were derived in part from the Fagan and Mihalic’s (2003) suggestions for key implementation variables including appropriateness of the intervention, degree of support from administrators or principals, access to the required intervention materials, and support from intervention coaches. A theme analysis was also utilized to examine teacher acceptance of the Second Step program in order to address the second research question. Specific information related to treatment acceptability was obtained from the focus group questions including the number of days and minutes per lesson that were used in teaching Second Step, the frequency with which role plays or suggested activities were utilized, the types of recommended improvements that could be

made to improve the curriculum including how it was implemented, the amount of time set aside at the school site to discuss how the program implementation was going, how involved the school administration was in the implementation of the program, and which aspects of the program were most liked/useful.

Classroom observations were also conducted as data for the second research question (To what degree do teachers at both schools implement Second Step with integrity?). Points were given per lesson component to examine the degree to which teachers implemented a lesson and each of the critical lesson components with integrity. These points were then translated into the percentages to measure the degree to which a lesson was implemented with integrity. For each lesson, a teacher could be credited for implementing up to six of the core lesson components. The classroom observation data was also utilized to determine the amount of time used for each Second Step lesson, the number of student role-plays, and the type of teacher feedback provided to students.

To address the fourth research question (What is the degree of behavioral change obtained for students having participated in the Second Step curriculum?), an analysis of office referrals and suspension data was conducted. An interrupted time series design was utilized to examine data from one pre-program year (2000) as a comparison and contrast with data from two program years (2001-2003). Patterns in the numbers and types of behavioral infractions were tabulated and recorded. This data analysis method was also used with the suspension records.

## CHAPTER IV

### Results

#### Chapter Summary

This chapter provides a qualitative analysis of teachers' perceived and actual implementation practices while using the *Second Step: A Violence Prevention Program* (Committee for Children, 1992). A qualitative analysis examining teacher's perceptions of the program as well as behavioral changes in aggressive behaviors as observed by school wide suspension and office referral rates is also provided. The findings presented in this chapter provide an in depth understanding of the outcomes related to teachers' perceived and actual implementation experiences when teaching Second Step, treatment integrity levels of teachers teaching the Second Step program and student behavioral outcomes.

The present study was designed to answer the following research questions in regard to the process of treatment integrity and implementation as well as program outcomes:

- 5) What are teachers' perceived implementation practices when teaching the Second Step curriculum?
- 6) To what degree is Second Step implemented with integrity?
- 7) What are teachers' perceptions of the Second Step program?
- 8) What is the degree of behavioral change obtained for students having participated in the Second Step curriculum, as measured by office referrals and suspension data?

The first two research questions address the issue of both perceived and actual implementation practices of teachers at two urban elementary schools. The third question addresses teachers' perceptions including whether or not the program was well received among the teachers interviewed as well as difficulties with implementation and recommendations for future implementation of Second Step.

### What Are Teachers' Perceived Implementation Practices When Teaching the Second Step Curriculum?

In order to address this research question, focus groups with teachers at Coble School and Lewis School were conducted. There were a total of nine teachers who participated in this focus group. A total of five teachers participated from Coble School, with four additional teachers participating at a focus group conducted at Lewis School. Both Coble School and Lewis School are in their second year of program implementation with the Second Step curriculum. Teachers are expected to integrate Second Step into their regular classroom lesson schedule, in order to implement it on a regular basis. Teachers' perceptions of the degree to which they needed to implement the Second Step curriculum varied and were largely dependent upon recognizing the need for such a program as well as their willingness to implement the program.

Teachers' access to his or her own kit- A key variable in implementing programs with integrity is access to the appropriate tools. Each of the teachers sampled explained that they had access to their own kit. These teachers therefore had all of the tools necessary to implement the Second Step program, as they were provided with complete curriculum kits consisting of the lesson posters, classroom visual aids, videos, teacher's

manual and additional props (e.g., puppets for the lower grades) to utilize with their respective classes.

Frequency with which the Second Step curriculum was taught- Teachers at Lewis School were allowed to choose their own day and time in which to implement Second Step. Teachers at Lewis School reported that Wednesdays were generally Second Step implementation day, but that they were permitted to implement it on other days instead of or in addition to Wednesdays. According to the teacher's manual, in order for Second Step to be implemented with integrity, one Second Step lesson is to be presented once or twice per week. However, many teachers discussed the fact that they did not always follow this schedule. One teacher commented:

I [implemented the program] three times a month for the past eight months. This past month and a half, I've been doing it every morning.

Because I wanted to trudge through the curriculum, I wanted to just really get it...

Teachers responded that Second Step was implemented anywhere from once a month to every day, depending on what they felt their students needed. As observed by one teacher:

You know, last year, I was a first year teacher and I just did not have the time [to implement Second Step]. Like that was just so on the bottom of my list of things to do, so I didn't get around to it. Plus I only had 16 kids and they were all pretty together, so I didn't really feel the need...And then this year, I had twice as many kids this year, but I still felt like they didn't really need it that much. So it wasn't really a pressing issue for me to get

that in there all of the time. Because whenever I whipped out a card, they already knew what was happening, what to do about it. So that like I was saying, they are pretty on top of it. So I didn't feel like it was a big need.

Amount of time used to teach the lessons- Figure 1 provides a graph of the average amount of time reported per teacher at Coble School for implementing a Second Step lesson. Figure 2 provides the average implementation time for teachers at Lewis School. Most teachers indicated that they would implement Second Step for 20 to 30 minutes. A majority of this time was spent on the discussion and student role-plays. Teachers commented that more time would be spent when discussing a Second Step lesson if the teachers felt that the students had a lot to discuss a specific lesson card.

Figure 1

Average Number of Reported Minutes of Implementation Time Per Second Step Lesson For Coble School

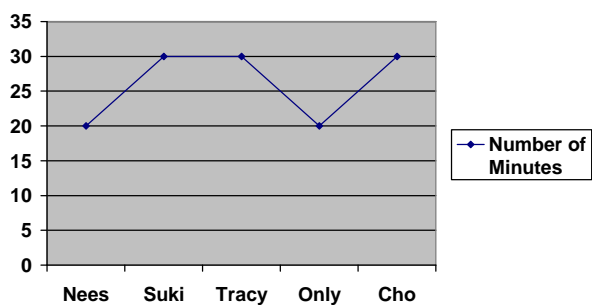
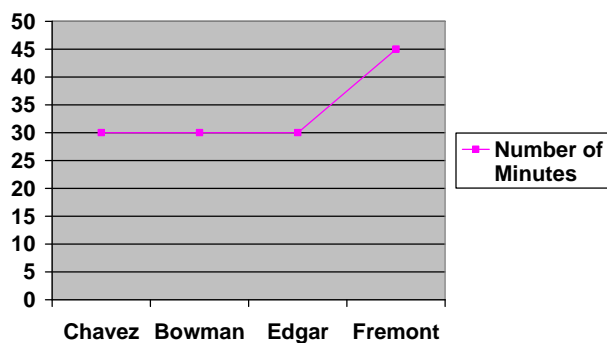


Figure 2

Average Number of Reported Minutes of Implementation Time Per Second Step LessonFor Lewis School

Followed the scope and sequence of the curriculum- Most of the teachers indicated that they generally attempted to follow the sequence of the curriculum lessons. Teachers who chose to implement the curriculum in order felt that they should adhere to the order of the lessons, even if they were teaching the curriculum on a less-than-weekly basis, because that was how the lessons were presented in the kit. One teacher commented:

[I followed the sequence] mostly in order. Occasionally something would come up. [I would] thumb through and find something I thought was pertinent to what was happening in my classroom.



The two first year teachers both indicated that they followed the specified sequence of the curriculum primarily because they were unfamiliar with the curriculum. One first year teacher explained:

I [followed the specified sequence] because I was unfamiliar with everything and thought that there must be some rhyme or reason; so if you try it and if it didn't work, then I would switch next year.

Teachers who did not follow the scope and sequence of the curriculum commented that they chose to skip parts of the curriculum that the teachers did not perceive to be relevant to their classroom. Some teachers commented that the lessons sequence did not always represent the needs of their classroom at the time it was taught.

One teacher stated:

I did start at the beginning of the curriculum. But that's probably why I didn't do it. I [initially] didn't find it as helpful or relevant as...When I found out how cool the Anger Management stuff, how helpful that was, then I really got like, 'This is great stuff!' and I wanted to get to the rest of it.

Another teacher added:

Occasionally, there was a card that might not be just right, and that's another thing. I mean, not just right, but it didn't work for us, I mean apply to us. So we would skip that card and go on...

Showed the lesson photo to the class- Teachers indicated that the lesson cards were a wonderful way to introduce the skill lesson being discussed. One teacher noted that:

They cannot wait to talk about the photographs. And I think the photographs, because there is a real variety of children and almost always, there have been a few that aren't quite as exciting as others, but almost always they can't wait to talk about what they see...I think something as simple as that, just a simple photograph and a simple situation, and it brings up all kinds of things [for discussion] to [the students].

Another teacher commented that the pictures on the lesson cards provided visual prompts that were useful during future reminders to students of a previously taught lesson or skill.

As indicated by a teacher:

I would say, 'Aha, do you remember what Maria did on that card? What did she do now? Ahh, okay, are you doing that now?'" [The pictures] makes it more tangible...

Although most of the comments regarding the pictures on the lesson cards were favorable, one teacher expressed her dissatisfaction with many of these pictures. This teacher indicated that her students were often unable to relate to some of the pictures, which resulted in the teacher picking and choosing which lessons she would use versus using them in order. This teacher commented:

...I began to feel a little awkward with the pictures. I didn't feel like they were serving a purpose [and] in some ways, the kids got a little strange about them. I got more into actual discussion of things that happened more in the class circle...then going and using [class discussion during circle time] doesn't go in any sequence of the picture.

Use of discussion cues – When asked about the strategies that were utilized to engage students in the discussion portion of the lesson, some teachers commented that they read the discussion prompts and questions directly from the lesson cards. Many of the teachers reported favorable responses to utilizing the discussion prompts listed on the lesson card. These teachers felt that having the discussion questions listed on the lesson card aided in the ease of implementing a lesson. In addition to reading the discussion cues written on the lesson card, one teacher commented that she utilized these questions to encourage discussion about the students' personal experiences in order to make the lessons more relevant. Some of the teachers indicated that the students seemed to enjoy the discussion portion of the lessons. As indicated by one teacher:

[The classroom discussion] always seems to happen really easily...And um, I never have any trouble in getting them started in discussions. In fact the biggest problem is stopping the discussions, [and] moving on.

One teacher commented on the difficulties of engaging her class using the discussion questions and prompts provided on a Second Step lesson card. She indicated that having students who are not native-English speakers could often prohibit a lively discussion of some lessons. As part of her strategy to engage all of her students during the discussion portion of a lesson, this teacher commented that she would re-state the question a couple of different ways. This teacher observed:

I would re-state the [discussion cues and] question...I have a class of English learners, a lot of second language learners, so I think sometimes they are not really sure what kind of response I was trying to elicit. So re-stating it was usually helpful.

Allowed opportunities for role-plays- According to most of the teachers, the students felt that the role-play portion of the Second Step lesson was the most popular aspect of the program. One teacher summarized the comments of most of the other teachers:

I think that was probably the most successful part of the program, the role-plays. They were so in to that.

The teachers observed that most of their students responded favorably to participating in the student role-plays. Most of the teachers commented that their lesson presentations typically included opportunity for student role-plays, at least, as one teacher noted, fifty percent of the time when a Second Step lesson was implemented. One teacher observed:

Well, totally did the role-playing in my classroom. Some kids who don't participate in discussions that much really get into role-playing, and then some don't. I don't make anybody and I don't insist that anybody do role-plays that doesn't want to. But it's great and actually last Friday, I taught a lesson that had role playing involved and we did run out of time and we did the role playing yesterday. So many kids wanted to do it, we even split it up like a recess, so I think we went longer than 35 minutes that time with that lesson.

In a commentary on how the role-plays are progressing in her classroom, one teacher commented on the possible reason as to why role-playing is so successful with many of the students. This teacher reflected:

Today I had a substitute and...so I came in and he was doing, just started the role play. The kids were very, very interested, and uh, I really wanted to go on...So, I said 'Hum, ok what would you rather do? Do you want to keep on reading or would you like to continue with role play?' Oh my God, it was role-play hands down. Because when you look at our curriculum, there really isn't really a lot of opportunity for drama. And this is the time for them to do that...But you have to really think about what you are doing...So I find my students eat up the role-play....When we got into the role-play, 80 percent of them wanted to do it.

As observed by this teacher, the students' enthusiasm to the role play portion of a Second Step lesson appeared to encourage most of the teachers to incorporate them into a lesson presentation, when time permitted. Not all of the suggested role-plays were utilized during a Second Step lesson. Teachers commented that those role-plays that seemed most interesting and relevant to their class were typically the ones that were chosen.

Although most of the responses to the role-plays were favorable, one of the teachers commented that role-plays were not always emphasized in her implementation of Second Step. This teacher noted:

We do a lot of discussions, we don't do a whole lot of role-playing. Sometimes we do, but then sometimes the kids loose the context of what we are supposed to do, so we try to keep it to discussions and try to stay on the topic. This year we could only handle about 15-20 minutes because they get so antsy.

Utilized the suggested activities- None of the teachers queried reported that they used suggested activities in their implementation of a lesson. Based on teachers' comments, there appeared to be more of an overall emphasis on the role-plays, but not so much on the suggested activities. The primary reason for the lack of emphasis on implementing the suggested activities was attributable to the lack of sufficient time to incorporate all of the aspects of a Second Step lesson. One teacher summarized:

Yeah. Again, it's the issue of time. You kind of just want to get the main concept down. If you had more time, then possibility more prep[aration] into it, you could extend it further. You know, but just getting the basic jest of the lesson, you could show the card and the role-play.

Sent letters/homework home- Similar to the lack of implementation of the suggested activities, most of the teachers surveyed commented that they did not assign any of the suggested homework or send the Second Step lesson letters home. Most of the teachers at Coble School indicated that they did not use the homework or letters. Only one of the teachers at Lewis School commented that she sent some of the letters home. Many of the teachers were unaware that there were suggested homework and/or letters to send home with some of the lessons implemented. Although one teacher commented that she did not currently use the letters or homework, she quickly added:

But I would [like] to. Especially with a difficult class. I don't know, I feel like it could be a homework possibility.

Completed teaching the entire curriculum- Most teachers reported that they did not complete teaching the entire curriculum. The reasons for this outcome varied. First, some teachers indicated that they did not implement Second Step with the frequency with

which it was to have been implemented. Given this tendency, many teachers found themselves at the end of the school year with several more lessons to implement. One teacher chose to implement Second Step on a daily basis during the last couple of months of the school year in order to complete the entire curriculum. Secondly, many teachers failed to follow the sequence of the lessons and chose instead to omit lessons that did not appear particularly appealing or relevant to their classrooms. These teachers, therefore, did not implement the curriculum in its entirety. Finally, some teachers reported that they initially did not see a need for teaching the program until later on in the year, given their lack of orientation and familiarity with the content of the curriculum lessons.

Manner and degree to which the school district Second Step consultants were utilized in supporting program implementation- Both Coble School and Lewis School had a Second Step coach assigned to their schools. In spite of the large teacher population at Coble School, these teachers knew the individual serving as the district Second Step coach. They were also familiar with the type of assistance she offered. Each of teachers at Coble School reported that the district coach assigned to Coble School came in to their respective classrooms and modeled a lesson with the students. One teacher at Coble School stated:

I used [the district coach] and she modeled a lot for me and she was able to extend a conversation longer than I was on the topic so she was more familiar with it. And so she got a lot more out of the kids. Got them thinking about some things.

Another teacher discussed another benefit to having a district coach:

I think having [the district coach] constantly there reminded me to do it. I wasn't very motivated myself to do it. And I mean, she made a poster for me, which you can't really see very well. Um, and she came and modeled definitely one of the lessons.

Some of the teachers at Coble School commented that they did not perceive any benefits to having a district coach outside of having the coach model a lesson. One teacher observed:

She came in and did a model lesson. But um, I mean it was um, but I didn't leave with anything, I didn't walk away with anything I didn't know before. But she just read the cards the same as anyone else.

The teachers at Lewis School relayed a different story. During the first year of program implementation, the school district sent district coaches to Lewis School to conduct classroom observations in an effort to familiarize the coaches with the various ways teachers were utilizing the program as well as to provide feedback and support to the teaching staff. However, during the 2002-2003 school year, Lewis School choose not to utilize the assistance of the district coaches. The reason for this decision was based on the perceived need for support for teachers at Lewis School. Lewis School utilizes one of the more experienced teachers to serve as the Second Step liaison with the school district. This teacher explained:

I am the Second Step liaison here, and we have not seen a supervised coach. But I will say that when I was asked whether I thought we needed one, I said no because the teachers at this school [implemented Second Step] last year and they felt relatively comfortable. I would ask if anyone



needed support and no one seemed to need it, people seemed to be doing it on their own. Just in checking, “Yeah, I am doing it”, you know at least once a week. So I told [a district Second Step coordinator] that I didn’t think we needed it, that we were kind of busy already. And she said fine. A lot of our teachers have been trained in Tribes [a classroom community building program], you know, and this is something that is important to our school...so I felt we didn’t need it.

Although Lewis School chose not to utilize a district coach, the teachers commented that the relationship between themselves and the Second Step liaison helped to provide support during program implementation through the use of suggestions and collaborative problem solving. As observed by one teacher:

Anytime I had a problem, I would just check in with [the school’s Second Step liaison] or even any one on the staff. I would just say, “Hey, how did you just do this?” or “How did you handle that?” or “How did that work for you? Mine didn’t work. Could you help make mine work?” A lot of times when I lost my place or didn’t know where to go next, I would just check in with [other teachers] ...okay, we would collaborate.

Methods used for encouraging generalization of the skills taught- The Second Step curriculum includes ideas and materials to utilize to encourage transfer of learning, or generalization. The curriculum kit includes a video to show to students and parents as well as letters to parents and homework assignments for the students located in the appendix of the teacher’s guide. None of the teachers at Coble School reported that they used the student or parent videos to the parents given the lack of technology and time.

Only one teacher at Lewis School reported using the parent videos. This teacher explained:

I actually use that...But in the beginning of the school year at back to school night, I told parents about it and told them that they could check it out. And several of my parents did check it out and bring it back. I didn't try it back to school night because of limited time...Gosh, I can't remember. I think it's 25 minutes to half an hour. And it's not, to show it back to school night would take up a lot of time. But I did have it for check out and several of them checked it out because they were interested in the problem solving and the anger thing. What to do when you're angry thing. They wanted to see it. I might have had five families.

The teachers who participated in the focus group did not typically use the Second Step letters and homework assignments. Most teachers indicated that they were unaware that these tools were provided as part of the curriculum. None of the teachers from either of the schools used the suggested homework assignments listed in the appendix of the teacher's guide. Only two teachers reported sending the parent letters home with their students. Both of these teachers were from Lewis School. A third teacher from Lewis School reported distributing handouts directly to parents at a back-to-school meeting. This teacher explained:

...Last year I did a workshop for parents at school on evening, so parents picked up information as to how they could support their kids. But one of the things that we did do with the full page piece that they could put on their refrigerator [was] primarily for how to solve problems.

Although the teachers did not use many of these suggested strategies, many of the teachers reported utilizing their own developed strategies to encourage generalization. For example, as a school wide practice, the teachers at Lewis School utilized a technique called the Hall of Fame to promote generalization and use of the Second Step techniques among the students. The Hall of Fame was explained by one of the teachers:

The best behavior, on the yellow paper and then the two pink at the bottom- those are our hall of fame behaviors that we are assessing with students. And in those classes, depending on how...it's usually you know, two to four children, are chosen either by their peers or by their teacher by vote, who have displayed those behaviors, and a lot of those behaviors come from Second Step. And then they get a little slip like that pink one at the bottom [stating that the student] needs [to use] impulse control and then we have pictures on the outside of our classroom and so the children that get that award for that week, its on the board, you put it out on the board with their photographs, it's included in the newsletter; the principal reads their names over the loudspeaker on Fridays. There is a lot of support and reinforcement for the behavior. And because of the children-- I don't know how it is in the other classrooms—in fifth grade the children recommend one another, so there're really looking at the behaviors and assessing how their friends are able to meet those provisions(sic). So that is a way of reinforcing [Second Step].

Another strategy that was employed by Lewis School was the use of Second Step articles for their school newsletters that were sent home. The Principal at Lewis School

collaborates with the school's Second Step liaison to develop a school wide newspaper that is distributed to the students for them to take home to their parents or guardians.

This teacher indicated that one of the articles included the steps for problem solving and anger management.

The use of writing prompts was also another strategy that many teachers used.

One teacher noted:

I did some prompts again to reflect on and write about it at home as part of their homework assignments. Especially in the beginning of the year when we were really trying to get in to the language and the definitions and things. And sort of learn how it applies to our school and home lives. So I did that incorporate on two or three occasions the different situational prompts on respond to it and how to handle this kind of things.

Another teacher observed:

I didn't send any homework. But I might have had a writing assignment that applied a couple of times, but not much. But the way the lessons are written quite often the home life is brought into the classrooms. And in terms of, it could be situation where...the teacher is going to tell mom or whatever, you know, [and] that is one of the possible solutions. Also, oh, like the one we had recently with where you can go at home when you feel angry. Where can you go to calm down? So I think that they are picturing themselves quite often not at school, which is helpful.

Encouraging students' critical problem solving skills was another strategy teachers commented on using to encourage reinforcement and generalization of the

Second Step skills. One teacher stated that she used writing prompts to accomplish this task. This teacher indicated:

That reminds me of something. Sometimes I started showing just the picture and put it on the board, and every morning I do now...And so I would just show the picture and I would ask them, "What do you think is happening here?" And so they would say, "Oh, I think you know, the boy broke the girl's record." And so then whatever was going on, and I would also tell them to write what they think could be done about it...And so they kind of make a prediction/solution...So that kind of gives them an introduction or background and gets them thinking what possibly could be the problem.

Another teacher commented that she used discussions outside of the Second Step lessons to promote independent problem solving abilities among her students. This teacher observed:

I just think, um, just in the natural...like I was saying earlier, just in the natural course of the day, like they would come to me and say, "You know, so and so did this" or whatever. So then I would ask them, "What are some possible solutions?" Not always in that language...But just promoting independent problem solving so that, I would just say, "What are some possible ways you can solve this problem? or "What are some possible ways you can prevent this from happening again?" So just, basically promoting independent problem solving.

Degree and type of support from school's administrator for implementing Second

Step- Teachers' perceptions of the degree of support from their school's administrator differed according to school location. One of the teachers from Lewis School provided a positive feedback regarding support from the principal at Lewis School. This teacher commented:

[Principal at Lewis School] has been very supportive of Second Step. And [she] tries to make certain that each teacher had a full kit. And she didn't have to budget that in, but she felt that was important and didn't want to share, that and we should have our own and use it as we needed to. Um, that was very supportive...She wanted to make sure that parents were aware of what was going on...And because it's something that runs her philosophy of teaching the whole child and giving him all the skills he or she needs. I'm not saying that [Second Step] wouldn't have come here because I know it was mandated. But the way in which it came here is very positive, so I really felt support in that way.

However, two teachers from Lewis School felt that their administrators could provide more assistance for encouraging the implementation of Second Step. One teacher argued:

I think again, just providing more time [to teach Second Step]. Like once maybe every quarter... or every six months, being able to talk to your grade level- "Hey, what are you doing in Second Step? What problems have you had? How did you handle this emphasis to get results?" But we don't even have enough time...I'd like to see more emphasis at the

beginning of the year for all teachers to be really given support in doing a lot more Second Step right in the beginning to build more community.... Every year I hear people saying that we should spend the first six weeks building open community. I keep overhearing people saying that I have already started this unit in [language arts], this unit in math, and I always hear these huge contradictions. How do you decide when to ease into the academic side of things? And I feel like every year I've been teaching I've kind of backed down and kind of plunged into the curriculum without really building a strong enough foundation before you start doing that. I know you cannot separate it entirely but it feels like it needs to be more of a school-wide emphasis on the first six or eight weeks, we really focus a whole lot more on a more rigorous program.

Another teacher added:

I think I would like to see more acknowledgements that we are limited in our scheduled time each day and when we have something valuable like this, something else just has to go. They are all like pieces of the puzzle...I for one would like things like Second Step keeping more of a priority. I don't want that to go out the window so we would have more time for [language arts] or whatever.

Most of the teachers at Coble School commented that they did not feel supported by their school's principal. There were few if any conversations regarding Second Step outside of reminders to implement the program or to sign up for lesson modeling by the school's Second Step district coach.

One teacher stated:

Well, [the principal] talks about it...She reminds us to have Second Step in our lesson plans, but it's that she is telling us. That's about the extent of the support we have.

Many of the teachers at Coble School talked about the fact that the principal at Coble School does not use the language of the Second Step program, but rather the language from a different conflict management system that she calls TWA- Talk About It, Walk Away and Ask For Help. Teachers expressed concern regarding the lack of uniformity of language used by teachers who were required to teach Second Step and the school's principal who regularly referred to another conflict management system. One teacher observed:

Yeah...she never talks about Second Step, or the problem solving. Even today in the assembly, she was talking about problem solving and she was like, "So what do you do? You use TWA." So, if there's more of a consensus about how we are going to approach problem solving, then maybe it would work better.

#### Problems experienced with the implementation of Second Step

Time- Teachers at both schools almost unanimously indicated that their greatest difficulty with the implementation of Second Step was their lack of time. One teacher observed:

...Finding the one spot where it fit perfectly, and then doing it once, twice a week, or every other week. I was trying it. And then I just didn't, I just couldn't regulate it...



Another teacher added:

The same with me. It was the time issue, was the most difficult thing. We have so many mandates to do this, do that, that it was hard to squeeze it in. And often my schedule didn't jive with [the school's Second Step coach] , so I would have to adjust and weed out something else that I'm supposed to be doing, so that I can do this.

A third teacher specified:

There's no time to sit down and talk with your colleagues about anything. I have to stop her in the hallways while she's running upstairs. I see her on yard duty, I'll say I have to ask [another teacher] what to do for this because I'm stuck here at this point and I'll write it on a postscript and stick it to my head, so I'll ask her. Or you know, if I see her while she's parking her car, I'll hang out, you know, because there is not enough time...

Pace of Lessons- A few teachers noted that even when they attempted to implement Second Step with regularity, they felt that pacing of the lessons was somewhat problematic. One teacher explained:

...Sometimes it's just so obvious that it's dragging out. You know the kids get it. You know, you are trying to make the lesson work, but its like, "We get this. Let's go on from here, next card." You know I could probably do 3 cards in half an hour, but sometimes I feel like I am trying to pace it or whatever, and I feel that's a hard thing for me.

Another teacher commented:

Sometimes the plot was unnecessary because we actually had discussed that in the prior discussion. I would just ignore that and say, oh well you know they just think its best that we talk about that and move on.

Relevance of Lessons- A third area of concern was the relevance of some of the units, lessons and materials. As previously mentioned, one teacher commented that he did not use Second Step with any regularity until he reached The Anger Management unit, given the perceived lack of relevance the previous units had with his classroom. This teacher felt that interpersonal difficulties his students had were not comparable to the Empathy and Impulse Control units, and felt that the Anger Management unit was the most useful of the three units in the Second Step kit.

I think that, I'm sure that there's a lot of research that says the empathy, yeah, should go first. But yeah, in practical matters, anger management, not putting each other down should come first. Just the skills, learning how to calm yourself down should come first. Then once you've calmed them down and they can deal with their anger. And then they can go back and let them start empathizing with each other. And they say, "Okay, Okay, I focus on myself and then I can go back and [deal with my classmates]..." Anger management kind of works on yourself. And empathy is kind of like, more about others. And about the need for it.

A second teacher indicated:

I felt that my children had some persistent issues that, I wasn't quite sure how they fit, or at least I wasn't sure how to address them using the tools of Second Step. Specifically bullying, of one form or another was a particular issue

throughout the year. And there were kids who were persistently causing problems over a long time. I had uh, one third grader threaten another third grader after school and was threatening to get a cousin to beat him up. Those particular kinds of issues that were not... I didn't find the tools to deal with them in Second Step, I found the tools elsewhere, but it would be nice incorporate some of these things into Second Step... It would be nice to see stuff to help kids deal with their real life issues. And I think the kids at our school, they are confronted with things that other kids don't get until later on.

Language- The relevance or goodness-of-fit of the lessons and unit was also an issue with teachers who worked with English learners, or students who did not speak English as their primary language. One teacher spoke about how the pictures on the lesson cards provided visual cues that were helpful in assisting English learners understand the conflict between the students depicted. This teacher noted that in certain cultures, there is not an opportunity for children to discuss their feelings because they were expected to do what they were told by their parents without commenting. Another teacher commented that it was often necessary to paraphrase the questions listed on the lesson cards in order to increase the likelihood that her English language learners would understand what was being discussed.

Materials- With regard to the goodness of fit of some of the materials, a fourth grade teacher reported dissatisfaction with the posters that were provided in the fourth grade kit. This teacher employed the services of the school's Second Step coach to make a set of posters for the class. This teacher commented:

...One thing, I mean as far as, I found out she had the posters for the lower grades, but they are not like the upper grade posters. They are a lot easier to read, and we just had a list.

Teacher Turnover- Finally, a problem that is inherent with many urban school districts, that also plagues this school district is the large turnover rate for teachers, particularly, first year teachers. Every year, urban school districts often face difficulties such as budgeting and luring qualified teachers with the appropriate credentialing given the lack of appropriate support and materials as well as increasing pressures faced nationwide to improve the scholastic standardized test scores of their students. These difficulties create large teacher turnovers on a year basis, thereby impacting the quality of teaching the continued implementation of various curriculums. One teacher observed:

I'm just saying that [another teacher] and myself are not going to be here next year. So how can we keep it going, now that we know that it's great? Now that we know what it is and how to use it and have these new perspectives...?

#### To What Degree is Second Step Implemented With Integrity?

Two classroom observations each were conducted in the classrooms of nine teachers. The classroom observations were utilized to measure the degree to which the teachers implemented Second Step with integrity. Observational checklists developed by this examiner were utilized to provide data about program implementation in the areas of story presentation, story discussion, teacher and/or student role plays, activities, transfer of training techniques and homework assignments. Five of the seven lesson components included subpoints to provide additional information related to how a teacher

implemented a particular lesson component. The transfer of training and homework components did not include subpoints.

Teachers were given points on the basis to what degree they implemented the aforementioned areas- 0 points indicated that the area was implemented with less than 50% accuracy (0-1 items/times), 1 point for 50% -75% (1-2 items/times), 2 points for 75% or greater (3-4 items/times) and 3 points for all items present (4 or more items/times). The totals for each lesson component were added and percentages were tabulated to determine the degree of lesson component implementation per teacher. Scores for a particular lesson component that was not included as part of the lesson presentation (e.g., utilized an activity in place of role plays) were indicated with an N/A (not applicable) on Table 7.

An analysis of observational data revealed low levels (e.g., less than 85%) of treatment integrity utilized by eight of the nine teachers, when total percentages for both lessons were calculated. Ms. Fremont was the only teacher to implement Second Step with an acceptable level of integrity (e.g., 85% or above).

In the area of Story Presentation, Ms. Only implemented this component with the greatest degree of accuracy. During her two classroom observations, Ms. Only always showed the lesson card to her students during the lesson presentation. She used all the story prompts provided on the lesson cards and managed students' participation by redirection questions that were unrelated to the lesson. She would quietly point to her ear when a student would call out, and the students would instinctively know that they needed to raise their hands and wait to be called on before speaking. Ms. Cho demonstrated the second highest percentage of story. Whereas Ms. Only always used

Table 7

Percentage for Teachers' Implementation of Seven Second Step Lesson Areas

Teacher	Percentage of Lesson Area Implementation Over Two Observations							
	Story	Discussion	Teacher Role Play	Student Role Play	Activity	Transfer of Training	Home	Total
Coble School								
Ms. Nees	54.5	45.5	25	57	N/A	0	0	30.33
Mr. Suki	62.25	62.25	37.5	40	N/A	0	0	33.67
Mr. Tracy	62.25	35.5	0	60	89	67	0	44.82
Ms. Only	79	84.5	0	66.5	0	33.5	0	37.64
Ms. Cho	75	91.5	50	20	N/A	N/A	N/A	59.13
Lewis School								
Ms. Chavez	8.3	0	N/A	N/A	0	67	0	15.06
Ms. Bowman	62.5	25	62.5	0	0	N/A	N/A	30
Ms. Edgar	100	100	62.5	63	N/A	67	0	65.42
Ms. Fremont	96	100	67	87	100	67	N/A	86.17

each of the story lesson prompts on the card, Ms. Only paraphrased the prompts and did not read them verbatim.

The students in Ms. Cho were a little rowdier than the students in Ms. Only's classroom, and Ms. Cho appeared to have somewhat of a more difficult time managing student's participation during the lesson presentation. Mr. Suki, Ms. Nees and Mr. Tracy only used one or two, if any of the story prompts provided. These teachers chose instead to generate class discussions that based on looking at the picture cards utilized for a lesson presentation. In the area of Discussion, Ms. Cho most accurately implemented the discussion portion of the lesson presentation. Ms. Cho utilized almost all of the discussion questions listed on the picture card. The other four teachers choose the questions that they felt were most relevant for their classroom discussions, and as a result did not ask each of the discussion questions listed on the story cards.

The teachers at Coble School utilized Teacher Role Plays with low levels of implementation. Ms. Nees and Ms. Cho utilized the teacher role plays during one of the classroom observations, but not for both observations either due to a lack of time or because the teachers did not perceive it to be important. Ms. Cho, who did not use teacher role plays during the first classroom observation, correctly modeled the lesson's skill accurately, after reading the role play prompt and pointing out the skill steps both before and after the role play during the second classroom observations. Ms. Nees also provided some modeling and skill review. Mr. Suki implemented a part of the teacher's role play during both classroom observations. He read a part of the prompt that introduced the teacher's role play during both classroom observations. He then

proceeded to provide a short role play of the skill during the second classroom observation. Neither Ms. Only nor Mr. Tracy utilized the teacher's role plays.

Although teachers reported during the focus group that the student role plays were the highlight of the lesson presentation, these types of role plays were also infrequently implemented. When student role plays were utilized, students were often allowed to generate their own role plays or to choose from the various suggested role plays, which ones they wanted to practice. The teachers used 4 to 8 students to implement the role plays. Most teachers also provided opportunities for four separate groups of students to model a skill. Although some of the teachers provided feedback of the student's role plays, they typically did not ask students to evaluate how well they thought they did.

In the area of Activity, only Mr. Tracy provided an opportunity for the students to participate. He read the activity prompts and facilitated the activity smoothly and clearly. Mr. Tracy also had all of the necessary materials for this activity, which only required the lesson card. For the transfer of training portion of the lesson, only Mr. Tracy and Ms. Only utilized this part of the lesson. Mr. Tracy helped his students identify a time when they needed to use this new skill when he spoke about one of his students who was upset about not being able to participate in the role plays. He helped his class as well as the student talk about ways of using the skill that was taught entitled "How to Handle Anger." The class actively participated during this discussion, and the students were able to generate solutions utilizing the skill concepts that were just presented. Ms. Only also allowed her students to "make a connection" by relating the skills and concepts presented during the lesson to a real life situation that had previously occurred to this student. Ms.



Only used this student's comments to generate further discussion regarding times when students have used or should have used the skill she had just introduced.

Finally, in the area of Homework, none of the teachers distributed the suggested talk home letters that may have included the student self-report and/or a parent report letter. Most of the teachers had commented during the focus group that they were unaware that there were take home assignments that could be sent home with their students.

Table 7 also provides percentage of lesson implementation for teachers at Lewis School. In the area of Story Presentation, both Ms. Edgar, the Second Step liaison for Lewis School, and Ms. Fremont demonstrated high levels of implemented integrity. Both teachers showed the picture on the poster card to their students. Prior to the lesson presentation, Ms. Edgar had gathered the necessary materials for one of the lessons she was presenting. These materials included poster paper and markers. Although Ms. Fremont utilized the lesson card, she failed to show the "What to Do When You Are Angry" poster to her class. Both teachers read all of the story prompts to their students. They managed participating and kept the pace flowing by redirecting students by asking them to put away items that they were playing with or to look at the lesson card. The students appeared prepared to be attentive listeners at the beginning of the lesson, and therefore classroom management was not problematic. Ms. Bowman did not show the lesson card to her students during the first lesson observation. She kept the lesson card at her side, and read some points from a scrap piece of paper. She used cues and discussion points from a previous lesson during her discussion. Ms. Bowman did use the lesson card during the second observation. She showed the lesson card to her students and read

all of the story prompts. The management of classroom participation flowed very smoothly during the first lesson presentation. However, students were more talkative during the second story presentation, and it was often necessary for the teacher to call students' names to remind them to quiet down. Ms. Chavez did not use a lesson card for either of her lesson presentations. Upon entering her classroom, one could observe that Ms. Chavez had written Second Step down at a specific time on her daily schedule. She began the lesson time by asking students to transition from an academic activity to the Second Step lesson. Ms. Chavez engaged her students in a discussion regarding what to do when they felt angry, and the students appeared invested in the discussion.

In the area of Discussion lesson component, Ms. Chavez did not read any of the discussion questions or prompts from the lesson card, as she did not have the lesson card available for either lesson presentation. Instead, Ms. Chavez led her students in a discussion of the skill concept that was more spontaneous and based on the comments and questions that the students presented during the lessons. During her first lesson presentation, Ms. Bowman did not read any of the discussion questions from the lesson card. However, she read half of the discussion questions during the second observation. Ms. Edgar and Ms. Fremont both read all of the discussion questions and prompts from the lesson cards during both of the classroom observations.

Consistent with Coble School, the teachers at Lewis School utilized Teacher Role Plays with a low degree of integrity. Ms. Fremont modeled the lesson skill and pointed out the steps of this new skill after her role play, but did not identify the skill steps prior to conducting the role play. Ms. Edgar more consistently modeled the lesson skill during both of her lesson presentations. She also read the role play prompt prior to conducting

the role play and pointed out the skill steps before and after the role play. Ms. Chavez did not role play the lesson skill during the first observation, but provided an impromptu modeling of the lesson when she showed students how to identify and write down compliments for other students. Ms. Bowman modeled the lesson skill during the second lesson presentation, but did not read the prompt before the role play. She identified the skill steps to problem solving after the role play, but not prior to the role play. Ms. Fremont and Ms. Edgar more consistently utilized the teacher role plays by modeling the lesson skill. Ms. Edgar established the guidelines of the role play prior to conducting it during her second lesson presentation. Ms. Fremont identified her own role play and pointed out the skill steps after the role play was completed.

Student role plays were also utilized at relatively low levels of integrity. Ms. Bowman, Ms. Edgar and Ms. Fremont all chose lessons in which student role plays were required. Ms. Bowman chose not to conduct any student role plays during either of her lesson presentations. Ms. Edgar conducted two student role plays using four students during her first lesson presentation, and only one student role play with two students during the second observation. She facilitated the role plays smoothly by utilizing the suggested student role plays that were outlined in the lesson. Ms. Edgar provided cuing and coaching during the role plays, but did not provide feedback to her students regarding their performances. During her second classroom observation, Ms. Edgar asked her students to evaluate their own performances by identifying whether or not they used all of the skill steps accurately. Ms. Fremont utilized five student role plays with a total of 14 students during her first lesson presentation. Although her second lesson presentation did not call for role plays, she allowed the students to continue practicing the skill previously

introduced during this examiner's first visit. Ms. Fremont facilitated the student role plays smoothly by beginning the role plays with a discussion around the types of behavior that are appropriate for role playing. She reviewed potential role play scenarios earlier in the day, and the students were provided the opportunity to choose which ones they wanted to practice. Students were then allowed to choose a partner to practice the skill concept in a dyad. She did not use much coaching and cueing during the role plays as the students appeared to understand what they were required to do during the role play. Ms. Fremont provided immediate feedback to many of the dyads and obtained a form of student feedback regarding their own performances by asking students to identify alternative solutions and other triggers that made them angry.

For the Activity lesson component, Ms. Fremont was the only teacher who engaged her students in the suggested activities. Her lesson focused on ways to relax and she had students to visualize themselves at a very peaceful location, while she turned out the lights and played relaxing music. Ms. Chavez and Ms. Bowman did not engage their students in any of the suggested activities. In the area of Transfer of Training, Ms. Chavez, Ms. Bowman and Ms. Fremont each engaged their students in brief discussions regarding past or future occurrences in which the skill concept could be used. Finally, similar to Coble School, none of the teachers at Lewis School utilized the Homework component for the lessons they presented.

A comparison in the levels of treatment integrity for each lesson area between Coble School and Lewis School was conducted and outlined in Table 8. The averages for both schools in each of the seven lesson areas were obtained. Minimal differences in levels of integrity were observed in the areas of Story Presentation, Discussion Questions,

Student Role Plays and Activity. The areas of greatest difference were the Teacher Role Play and the Transfer of Training lesson areas. Teachers at Lewis School appeared to utilize the teacher role plays more often than did teachers at Coble School, and with greater levels of integrity. Teachers at Lewis School also engaged in additional discussion after the lesson presentation as encouraged by the Transfer of Training prompts on many of the lesson cards. Their discussions provided students opportunities to relate the story and lesson skills to their own personal experiences. Students at both schools appeared engaged during these types of discussions.

Table 8

Lesson Area Implementation Percentages For Coble School and Lewis School

Lesson Area	Average Percentage of Lesson Components Implementation		
	Coble School	Lewis School	Difference
Story Presentation	66.6	66.7	.01
Discussion Questions	63.85	56.25	7.6
Teacher Role Play	22.5	75	52.5
Student Role Plays	48.7	50	1.3
Activity	44.5	33.33	11.7
Transfer of Training	25.13	67	41.87
Home	0	0	0

Table 9 provides the analysis of the amount of time used per lesson presentation. The beginning and ending time for all of the lessons was recorded on each of the

observational checklists. The average amount of time utilized for teachers at Coble School when implementing a Second Step lesson was 23.5 minutes per lesson. However, four of the five teachers appeared to utilize less than 20 minutes per lesson. Only one teacher utilized more than 30 minutes per lesson. This teacher also provided a high level of classroom participation and management throughout the lesson presentations. Teachers at Lewis School were generally diverse in the amount of time utilized to implement a Second Step lesson. The average amount of time used per lesson implementation was 31.5 minutes.

Table 9

Time Utilized Per Lesson Presentation For Teachers at Coble School and Lewis School

Teacher	Observation #1	Observation #2	Average
Number of Minutes			
Ms. Nees	21	8	14.5
Mr. Suki	15	15	15
Mr. Tracy	14	17	15.5
Ms. Only	58	48	53
Ms. Cho	18	20	19
Ms. Chavez	20	30	25
Ms. Bowman	15	14	14.5
Ms. Edgar	20	43	31.5
Ms. Fremont	65	45	55

### What Are Teachers' Perceptions of the Second Step Program?

The third research questions deals with teachers' thoughts and feelings regarding the Second Step curriculum. Every teacher who participated in this focus group reported liking the Second Step program. Teachers felt that the curriculum was relatively easy to use, in spite of the limited time to prepare for a lesson ahead of time. The teachers were generally also pleased to have an instrument in place that directly addressed many of the common interpersonal conflicts students faced on a daily basis. As observed by one teacher:

I think it's a great program. I mean, even though...we don't have enough, I don't think any of us have enough experience with it...

Another teacher commented:

And I mean, definitely, if I go to another school, I'll probably use some of it, even if they don't have the program, I can use it.

One of the many benefits of the program is that some teachers felt that it provided alternative ways in which students could interact with their peers when difficulties arise.

It definitely helped to have a format to go by, you know how to solve a problem. It really helped the teacher to help [the students] help themselves. And it gives you a step-by step way to do that...and then, and they are smart, they know how to figure it out themselves. I was pretty amazed at the solutions they came up with if they have to have a problem, how to solve them. It kind of really lets them know, I'm not really in charge, they are in charge of their own problems... It would be good for teachers to be consistent doing that...

Another teacher observed:

I think [Second Step] makes the students to be really self-reflective. Um, they take ownership, and they mind each other. The teacher has to be involved a lot less in student-to-student conflict. It's amazing.

A third teacher stated:

...Today I had, on my yard duty, there was a real fight. And I just, in recalling back especially around this time of the year, fights were just terribly frequent. And so uh, though I have a colleague who says it was just terribly rough out there I was thinking, 'Boy we haven't done this in a long time.' You know, so I kind of had a, I kind of feel like there has been a big improvement in the way that children behave toward one another.

Teachers regularly commented that many of their children appear to be making connections between how they handle conflict and the outcome of their choices.

I wanted to add one thing that I don't know if it's, where it fits in, but um, I probably should have added it earlier. But I noticed that they are making big connections between reflecting on their behavior and making connections. And part of this is [the district's language arts program] language, which I'd like to see used in the real world, where they'll say, "I'd like to make a connection with something that's happened today" and then they take it to a bigger picture. And my favorite is back in October when four girls wrote a letter to President Bush inviting him to come to our classroom for a Second Step lesson at 12:20pm on Wednesday and



then that kind of boomeranged... He hasn't shown up, and they didn't get a letter back from him saying that he would. But it turned into the rest of the year we had regular discussions about the war. And the kids are always relating that back to, you know if you don't develop empathy when you are young and if you don't use impulse control when you are young then when you get older you end up fighting in wars. And it's, there is a direct link, and I think they are really seeing that by having to live through what this country went through.

Other teachers felt that while their students' behavior did not dramatically change as a result of the program, they did demonstrate a greater tendency to use some of the language that the program provides, when handling conflicts with their peers.

Yeah, and that reminds me of the making a complaint card. I think you [the observer] might have been there for that one? But they, I've been reinforcing that, because they always come to me. And I would say, "What do you want me to do about it? Have you talked to them first?" And they would be like, "No." And I'd be like, "Well you need to share your discontent with that one." And now since we've had that one, I'd say, "Okay, make your complaint." You know and that's all I have to say, and they like pretty much know what to do from there.

Another teacher observed:

I just think that I stick my nose in too much, or have in the past. And Second Step has let me learn how to help kids take charge of their own situations more and that I can just say something like, "Did you use an 'I'

message” or “Well, have you talked to each other?” Or send to kids out to the hall to talk to each other. I can really do that now more comfortably, because of Second Step.

Some teachers commented that while Second Step helps their students to reflect on their behavior and language choices, and the consequences of their choice, the program also aids in teachers conducting similar reflection on their behavior and language with their students.

One teacher who observed these types of benefits with her students and herself observed:

My kids really like using it a lot. It definitely is a big attention getter. And it kind of causes this wonderful feeling of seeing a mind reader at work, pulling out one of these cards. For me the teacher and especially the kids, just to know that these problems are universal. ‘Cuz after having a frustrating week dealing with eight or nine year olds’ problems, to realize that this is a universal developmental stage and that these have been identified as problems that eight or nine year olds face universally, it’s nice to discover that.

Another teacher added:

Sometimes when I blow my cool, then I really have to reflect too. And I have to step back, you know and say, count to ten... And it’s good because then the children know, the children know that you need to use it too. And you can model.

A third teacher commented:

Just last week, I can't remember, or two weeks, three weeks ago- I apologized to the class for losing my temper and said I didn't really use impulse control. And, I feel like it's much more, I'm more comfortable doing that. And then they see me as more human, and they have words for, and I said look teachers lose their temper too. And it is just really important to accept responsibility and to work at using impulse control and anger management.

Suggested modifications – Teachers provided three key areas of suggestions in which improvements can be made when using the Second Step program. The first key area is to make sure that every teacher is trained in using Second Step, especially first year teachers, and continue to provide on-going training throughout the year. One teacher commented on how useful the summer introduction to Second Step course was in orienting her to the program. She felt that it was more helpful to learn about the program before beginning to implement it in order to thoroughly familiarize herself with the program before she used it. This teacher stated:

That's why I kind of look at the summer institute of learning. And sometimes I would pick different phases of [the teacher's] class. And I wish I could do it this summer because I would be more relaxed and I would be able to ask her certain questions, "I got jammed up here, how could I handle this?" You know, that kind of thing. And just do a refresher course, like you know, in a day like [the district's Second Step consultant] normally does. But I know the district's not offering it this year so they can't answer [my questions].

The district Second Step coaches help to provide on-going assistance for many of the teachers who made themselves available to this service, and can be utilized to provide on-going training and problem solving. The coach can be used to model a lesson or provide additional materials or suggestions for activities to help build upon a Second Step lesson. One teacher commented:

Yeah, I think it would be good [having a district coach] for getting people started. Like showing them that it's easy for people to do. You know if somebody is worried about, you know feeling overwhelmed. Modeling might show people that it's not [hard]...

Reinforcement and continued training for implementation of Second Step does not always have to occur in a classroom-like, lecture setting. One teacher provided a unique suggestion for providing continued modeling and training of the Second Step curriculum:

I think that one thing that would be good, is that if we had more assemblies where the role-plays were more elaborately demonstrated...

A second area for improvement is to ensure that the school is implementing the program on a school wide basis. Similarly, every school staff member, from the administrator on down to the school volunteers (e.g., yard teachers) should be familiar with Second Step and should use the same language from this curriculum. The teachers provided many unique suggestions for ways to encourage school-wide implementation of the program. These suggestions included conducting regular assemblies, providing the staff and time necessary to implement the program, using newsletters to inform parents of what their students are learning, etc. Similarly, all the teachers queried reported having their own kit, which allowed the flexibility to implement the program when needed.

With each teacher owning a kit, many of the teachers commented that Second Step can and should be implemented on a school-wide basis. This provides the opportunity for the skills to be generalized and used both in and outside of the classroom. One teacher noted:

It just hasn't been fully implemented...I guess just being fully familiar with it, and [implementation] just being an entirely cohesive thing...

As observed by another teacher:

...It feels like it needs to be more of a school-wide emphasis on the first six or eight weeks, we really focus a whole lot more and then ease into a more rigorous program. And the district tends to counter that, you know with pacing plans. And if you are not on the pacing plan then you're behind the rest of the year.

Another teacher stated:

I, well I don't know how detail I can be about how but, I really noticed a huge difference [in behavior] last year and this year. But, and I think two things were mostly responsible, Second Step and getting a lot more games for them to play out in the yard. So the combination really worked. I think that a yard duty teacher can say, "Did you give them an 'I' message?" and everyone can know what that means. But that kind of thing has really helped up today(sic).

A final area of improvement as observed by the teachers is that more time is needed to collaborate with co-workers to problem solve and/or address any concerns regarding the program. Such time would allow teachers to plan activities and lesson

ideas to help generalization of the Second Step skills, concepts and language. As indicated by one teacher:

I think again, just providing more time. Like once maybe every quarter...or once every six months being able to talk to your grade level—"Hey what are you doing in Second Step? What problems have you had? How did you handle emphasis to get results?" But we don't even have enough time.

What is the Degree of Behavioral Change Obtained for Students Having Participated in the Second Step Curriculum, as Measured by Office Referrals and Suspension Data?

Both Coble School and Lewis School utilized various forms of office referral systems to obtain data on the number of students referred to the office and the types of infractions that occurred. The suspension data is maintained by a district wide system in which the official suspension paperwork is sent to a central office to be tabulated and then presented on the school district's web page providing suspension data per school. Table 11 provides the number of suspensions that occurred at Coble School during the pre treatment year (T0), first treatment year (T1) and second treatment year (T3) while Table 12 provides the same data for Lewis School. The total percentage of suspensions was obtained by dividing the number of suspensions by the total student population for a given year.

There were a total of 929 students at Coble School during T2 school year, 918 students during T1, and 1015 students during T0. At Lewis School, the total number of students during T2 was 333, while there were only 326 students during T1 and 365 students during T0. An analysis of suspension data during these three years revealed a

decline in the total number of suspensions from T0 and T1 at Coble School. However, there was a slight increase in suspensions during T1 and T2 at Coble School.

Table 10

Student Suspensions for Coble School Across Three Years

Year	Injury to Other	Percentage of Population	Total Suspensions	Percentage of Population
2000-2001	19	1.87	30	2.96
2001-2002	8	.87	21	2.29
2002-2003	1	.11	26	2.80

Table 11

Student Suspensions for Lewis School Across Three Years

Year	Injury to Other	Percentage of Population	Total Suspensions	Percentage of Population
2000-2001	6	1.65	8	2.19
2001-2002	3	.92	8	2.45
2002-2003	2	.60	6	1.80

Table 11 provides the number of suspensions at Lewis School. A different trend was observed in the total number of suspensions at Lewis School. There was an increase in the total number of suspensions during T0 and T1 while a decrease was observed between T1 and T2. In an analysis of the number of suspensions generated specifically

for incidents related to aggressive behaviors resulting in injury to others (e.g., fighting), a continued decline was observed at both schools.

Table 12 provides an analysis of individual and school wide office referrals at Coble School, while Table 13 highlights the referral numbers for Lewis School that were generated during T0, T1 and T2. The school wide office referrals for both Coble School and Lewis School refer to the total number of referrals that were generated. The reasons for the school wide referrals included reasons such as, but not limited to, failing to return to class on time, throwing materials and/or fighting with another student. Table 14 highlights the degree to which school wide referrals increased or decreased across three years. Table 15 provides the percentage for which the fighting only office referrals increased or decreased.

A study of the school wide office referrals at Coble School revealed a modest continued decline in the number of referrals between T0 to T1 and T1 to T2. Office referrals for fighting only also appeared to decline during these three academic years. Unique trends in the number of school wide and individual office referrals were observed at Lewis School. The number of school wide office referrals increased from T0 to T1 by approximately thirteen percent. A decline was observed in the number of school wide office referrals at Lewis School from T1 to T2 of approximately 10 percent. Similarly, an increase in the number of fighting only referrals occurred from T0 to T1, while a decrease occurred from T1 to T2 at Lewis School.



Table 12

Total Instance of All Referrals and Fighting Only Office Referrals at Coble School Across Three Years

Year	School Wide Office Referrals	Percent of Population	Fighting Referrals	Percent of Population
T0	148	14.58	45	4.43
T1	133	14.49	36	3.92
T2	94	10.12	32	3.44

Table 13

School Wide and Fighting Only Office Referrals at Lewis School Across Three Years

Year	School Wide Office Referrals	Percent of Population	Fighting Referrals	Percent of Population
T0	142	38.90	4	1.10
T1	169	51.84	20	6.13
T2	138	41.44	20	6.00

Table 14

Difference in Percentage Rates for School Wide Referrals At Coble School and LewisSchool Across Three Years

Year	Coble School All Referrals	Lewis School All Referrals
T0 – T1	-.09	+12.94
T0 – T2	-4.46	+2.54
T1- T2	-4.37	-10.40

Table 15

Difference in Percentage Rates for Fighting Only Referrals at Coble School and Lewis  
School Across Three Years

Year	Coble School Fighting Referrals	Lewis School Fighting Referrals
T0- T1	.51	-5.03
T0- T2	.99	-4.90
T1- T2	.48	.13

## CHAPTER V

### Discussion

This study provides an examination of teachers' perceived and actual implementation practices. This study also identifies teachers' perceptions of an intervention they implemented with their students and highlights the degree to which this intervention positively impacted the behavior of their students. The intervention model used for the purposes of this study was the *Second Step: A Violence Prevention Program* (Committee for Children, 1992). Second Step is a social skills training program that was implemented at the two program schools used in this study, in order to decrease levels of student aggression.

The purpose for this chapter is to examine the key results of this study. These highlights are centered on the research questions that were asked as a basis of this study. First, this chapter highlights the degree to which teachers reported implementing Second Step with integrity. Second, a review of the actual levels of treatment integrity observed during two Second Step classroom observations is provided. Third, this chapter examines the perceptions and acceptability of the Second Step program with the teachers at the two intervention schools. Fourth, this chapter identifies whether or not significant changes in student aggressiveness as measured by suspension and office referral rates were observed. Implications and limitations of this study are also provided. Suggestions for future research on this area of study are also discussed.

#### Summary and Integration of Findings

This study examines three critical areas of program implementation and evaluation: 1) treatment integrity; 2) treatment acceptability; and 3) outcome variables.

The first and second research questions examined the issue of treatment integrity by examining teachers' perceived and actual treatment implementation and treatment integrity practices, respectively. The third research question addressed the issue of treatment acceptability while the fourth research question highlighted outcome variables associated with the implementation of the Second Step curriculum.

### What Are Teachers' Perceived Implementation Practices When Teaching the Second Step Curriculum?

The first research question addressed in this study was teachers' perceptions of their implementation practices when teaching the Second Step curriculum to their students. Teachers from two schools that use Second Step participated in a focus group in which their perceptions of the implementation practices were discussed. Each participant relayed that they had access to their own Second Step curriculum kit. The teachers therefore had the tools necessary to implement Second Step with integrity.

Teachers generally reported that they did not teach Second Step on a consistent day and time. Similarly, most teachers indicated that they did not complete the entire curriculum. The failure to finish the curriculum occurred due to various reasons. First, all of the teachers commented about the lack of time in which to implement the curriculum. Given a lack of time, teachers often did not implement the curriculum with the appropriate degree of frequency. At the end of the school year, teachers found themselves with a lot more lessons to teach than there was time. Another area of concern was the degree to which the curriculum was relevant to a class. Teachers talked about choosing to implement some lessons and not other lessons based on what was relevant to or needed by their students. For example, one teacher commented on her difficulty with

engaging all of her students in a discussion about many of the lessons. She explained that many of her non-native English-speaking students often could not comprehend what was being stated or asked. This teacher indicated that she would re-state the discussion questions and prompts in different ways to encourage her student's comprehension of what was being discussed. Similarly, if a particular lesson appeared to provide too much of an overview from a previous lesson, or the pacing of a lesson was perceived as being slow, teachers would often choose to either forgo teaching the lesson altogether, or would only briefly introduce the lesson and move on to another lesson. Teachers who utilized these implementation practices also did not implement the curriculum in its entirety as some lessons were omitted in favor of teaching other lessons they deemed to be relevant for their classes.

Finally, difficulties that are inherent with many urban school districts, including limited budgets and high turnover rates for teachers are seen as an additional barrier to program implementation. Teachers, particularly at Coble School where two of the five teachers were facing a job layoff due to massive budget cuts, noted a concern with the large turnover rate that this school district faces on a yearly basis. These teachers commented that it is difficult to continue implementation of a program with annual changes in teaching staff.

#### To What Degree Is Second Step Implemented With Integrity?

The second research question addressed in this study examines the degree to which teachers at Coble School and Lewis School implemented the Second Step curriculum with integrity. Two classroom observations were conducted for a total of nine teachers. A total of five teachers were observed at Coble School and four teachers were

observed at Lewis School. A classroom observation form examining seven key implementation components of the Second Step curriculum was utilized during each of the classroom observations. Teachers were given 0 to 3 points for each of the sup-areas listed for five of the seven components as well as each of the remaining two lesson components that did not include sup-areas. The total points for each observation per teacher were then added and percentages were derived.

The correlations between the levels of implementation during both of the observed lessons indicated that implementation practices of teachers were stable across time. The results also suggest that most teachers used low levels of treatment integrity, with notable exceptions. Ms. Chavez utilized the lowest level of treatment integrity. She did not use the materials in an appropriate manner, and relied on an impromptu discussion of the lesson topic, rather than reading the discussion questions. She had familiarized herself with the Activity suggestions, and attempted to utilize some of these strategies. Ms. Fremont implemented Second Step with the highest degree of treatment integrity. She utilized the Story Presentation and Discussion of Questions with treatment integrity levels recorded at 96% to 100%. Ms. Fremont also demonstrated a high level of treatment integrity in her implementation of the Activity lesson component. She also demonstrated an acceptable degree or 87% of treatment integrity in her implementation of Student Role Plays. The Teacher Role Plays, Transfer of Training and Home lesson components all had the lowest treatment integrity percentages, which were at 67% or lower. Only three of the five teachers observed at Coble School and all three of the three Lewis School teachers who used lessons that included the Teacher Role Play component

utilized it. None of the teachers observed during this study utilized the Home component, while only one teacher at each of the two schools utilized the Activity component.

Many of the individual teacher differences in the degree to which they implemented lesson areas with integrity were minimal when school percentages of each of the seven lesson areas were calculated. Teachers at Coble School and Lewis School appeared to implement the Story Presentation with similar degrees of integrity, when averages across teachers were computed. Small differences in the areas of Discussion Questions, Student Role Plays and Activity Lesson were also observed. The areas of greatest difference between Coble School and Lewis School were in the areas of Teacher Role Play, with a mean difference of 52.5%, and Transfer of Training, with a mean difference of 41.87%. The teachers at Lewis School implemented the Teacher Role Play lesson component with an average moderate level of integrity of 75% in comparison to 22.5% at Coble School. Transfer of Training was also implemented with an average moderate level of treatment integrity at 67% at Lewis School in comparison to 25.13% at Coble School.

The classroom observations also demonstrated a key implementation variable of the amount of time each teacher used when teaching a Second Step lesson. The minutes used in teaching each lesson were recorded on each of the observation protocols. Teachers at Coble School implemented Second Step an average of 23.5 minutes per lesson while teachers at Lewis School implemented Second Step an average of 31.5 minutes per lesson.

### What Are Teachers' Perceptions of the Second Step Program?

The third research question identifies teachers' perceptions of the Second Step curriculum through the use of a focus group format. When asked about how they felt about the Second Step curriculum, every teacher initially responded favorably. The teachers believed that it was helpful to have a curriculum in place in which interpersonal relations and social skill building are discussed. Teachers also appreciated the relative ease of implementation. Many of the teachers commented that the program helped to teach students the self-reflective and social problem solving skills necessary to increase prosocial skills, while decreasing unwanted behaviors. One teacher noted that she believed her students were making stronger connections between their actions, and the consequences of their behavior. Although not all of the teachers believed that their students' behavior dramatically changed as a result of implementation of the curriculum, they did observe and hear changes in their students' language. Several teachers noted that the lessons helped teach students the language tools necessary to effectively discuss their feelings and handle conflict. Teachers found that they also used some of the language and problem solving skills with their students especially after moments where they could have utilized an Anger Management or Impulse Control skill more effectively with their students.

Treatment acceptance of Second Step was directly related to the degree to which the program was perceived as being relevant for a given classroom. For example, one teacher indicated that the behavioral problems of her students were relatively mild and did not require remediation provided by the Second Step curriculum. The lack of perceived need affected teachers' use of Second Step, in that they did not use the



curriculum as prescribed. For Ms. Fremont, who indicated that she valued Second Step and would like to see it prioritized at her school, relevance may have also affected her use of the program in that she made a greater attempt to implement the program as it was prescribed.

Another area that impacted teachers' acceptance of the curriculum was the limited relevance of some of the lesson units, stories and materials. One teacher commented that the materials provided in the fourth and fifth grade kits were not as exciting as the materials provided in the kits for the lower elementary grades. Another teacher commented that the lesson discussions were not always relevant with her students, given the high percentage of English language learners in her classroom. Another comment made was that the Anger Management unit appeared most relevant to students, so much so that this teacher initially did not utilize the curriculum until he discovered how useful the Anger Management unit was with his students. Teachers reported that they often found it necessary to modify certain Second Step lessons given these problems.

Teachers commented on three key areas for improvement at their schools when implementing the Second Step curriculum. First, teachers should receive on-going training throughout the program implementation. This is especially desired for first year teachers. Second, the curriculum should be implemented on a school wide basis so that every teacher, administrator and staff member is familiar with the language and problem solving steps associated with the curriculum. Finally, teachers desired more time to collaborate with their co-workers in order to address any questions they might have regarding program implementation.

### What is the Degree of Behavioral Change Obtained for Students Having Participated in the Second Step Curriculum?

The fourth research question postulated was to what degree were changes in students' behavior observed, as a result of implementing Second Step. Suspension data and office referrals were collected from the pre-treatment (T0), first treatment (T1) and second treatment year (T2). Changes in suspension data demonstrated a decrease at Coble School and Lewis School in the number of student suspensions for Injury to Other (e.g., fighting) from T0 to T2. A review of the office referral data revealed a small decline in the number of School Wide Office Referrals as well as the number of referrals for Fighting Only. A review of the office referral data at Lewis School revealed an increase in both the numbers of School Wide Office Referrals and office referrals for Fighting Only. The total number of School Wide Office Referrals at Lewis School decreased from T1 to T2, although the total number of Fighting Only Referrals remained the same from T1 to T2.

### Discussion

#### Treatment Integrity Levels with Second Step

This data can be utilized to provide several explanations for the findings. With regards to treatment integrity levels teachers utilized when teaching Second Step, the results of this study suggest that teachers' treatment integrity levels when implementing Second Step with an entire class are relatively low and related. Number of years teaching did not appear to consistently impact whether or not teachers in this study implemented the treatment with integrity. Similar findings were observed in McKenna's (2000) thesis on treatment integrity levels with teachers using the Skillstreaming curriculum.

Teachers' perceptions of the degree to which they implemented Second Step with integrity in comparison to actual levels of implementation revealed both consistencies as well as inconsistencies. Teachers reported, and the classroom observations confirmed, that teachers implemented Second Step for approximately 15-30 minutes per lesson. Teachers appeared to be generally cognizant of the amount of time they used when teaching a Second Step lesson, and that may be attributable to the rigorous academic pacing schedule they are required to follow. The district scholastic pacing schedule requires that certain lessons in language arts and math are taught during a specific week. The pacing schedule also ensures that certain topics are covered prior to the district's standardized testing period, which begins in mid to late spring. Given that teachers have very stringent schedules to follow, they may be more apt to attend to times when they deviate from that schedule, thereby creating awareness for the amount of time in which they spend on any given activity outside of the core academic lessons.

Teachers were also more accurate in their accounts of not using certain aspects of the curriculum including the Homework and Activity areas. Classroom observations confirmed that none of the homework exercises or letters were used after a lesson presentation. The Activity Lesson area was implemented with only a low degree of integrity. The treatment integrity levels observed during the classroom observation were consistent with teachers' self-reports of implementation practices. Teachers' understanding of their limited use of a particular lesson area may be attributable to their awareness of time constraints and their desire to focus on more relevant aspects of the lesson in order to help students obtain a general understanding of the lesson. This finding supports Witt and Elliott's (1985) argument that teachers' available resources, including

time, will significantly impact the degree to which an intervention is implemented as it was intended.

The use of the Homework and Activity parts of the Second Step curriculum were designed to provide students with opportunities to practice new skills presented during the lesson with their peers (e.g., during the Activity lesson component) or with their families and friends outside of the school setting (e.g., utilizing the Homework lesson component). This extra practice would have allowed students to rehearse and/or over-learn a skill. Rehearsal or over-learning of a skill may increase the likelihood for “initial positive skill changes in a trainee’s behavior” (Goldstein, 1985, p.15). Teachers’ failure to implement these lesson areas decreased opportunities for additional rehearsal and exposure to a lesson skill.

Teachers were not accurate in their reports of treatment integrity levels for certain aspects of the curriculum. Similar findings were observed in McKenna’s (2000) thesis study of teachers’ implementation practices when using Skillstreaming. For example, teachers reported higher degrees of implementation of lesson areas such as the Discussion and Student Role Play than what was observed. The teachers’ comments during the focus group suggest that teachers realized the need for teaching these two important lessons areas, but failed to implement them as often as they reported. Teachers may have recognized the importance of these curriculum areas, but may not have utilized them with high degrees of integrity given the lack of monitoring and feedback about the importance of implementing all aspects of the curriculum with integrity. As indicated by Fagan and Mihilac (2003), project directors/coordinators are crucial personnel as they can provide feedback to teachers regarding the degree to which teachers are implementing an

intervention with integrity. Although district coaches were made available to each school, the coaches provided modeling of lessons and not feedback on intervention implementation. Therefore, the teachers in this study may not have been aware of the need to implement all aspects of the curriculum with integrity, given the lack of monitoring, guidance and on-going training.

Finally, teachers reported low levels of perceived support from their principals. Fagan and Mihilac (2003) observed that support from principals and school administrators is a key variable in proper intervention implementation. Without this support, teachers may have felt less of a need to implement Second Step, which may have also contributed to low levels of treatment integrity.

#### Teachers' Acceptance of Second Step

Most of the teachers reported that they enjoyed using the program. They believed that it was helpful to have a tool to address some of the issues that their students faced. As a whole, teachers thought that the curriculum provided students with alternative behavior and vocabulary to solve conflicts with their peers.

Seven of the nine teachers discussed their concerns regarding the relevance or fit of the curriculum with their students. They stated that the curriculum did not always address the needs of their students. A few teachers questioned the order of the Second Step curriculum. As commented by one of the teachers, it appeared that teaching students the Anger Management skill steps from the Second Step curriculum would have been more helpful if this was the first lesson series of the curriculum. Second Step focuses first on developing Empathy skills in students, as it is the first lesson unit in the curriculum. This may be one drawback to the curriculum as students may benefit first

from learning to control their behavior before being able to process a social situation.

These findings present significant implications in the area of treatment acceptability. First, teachers' acceptance of Second Step directly impacted the degree to which they utilized the curriculum with integrity. For example, Ms. Fremont commented on the value of Second Step in helping students take responsibility for solving their problems with others, and for providing her with tools to handle her own level of frustration with her students. Her acceptance of Second Step and the degree to which she found the curriculum relevant to her students may have directly impacted her use of the program as prescribed. This finding is consistent with past studies (Detrich, 1999; Reimers et al., 1987, Witt & Elliott, 1985). Additionally, when students' behavior is viewed as being severe, intensive efforts may be utilized to address this concern (Witt & Elliott, 1985). This study found the lack of severity of students' behavioral difficulties negatively impacted teachers' use of the Second Step curriculum.

Similarly, when Second Step was not judged applicable or relevant to a group of students, teachers made modifications in the way the curriculum was implemented. However, changes to treatment integrity may significantly impact the degree to which positive behavior changes are observed (Cowen & Sheridan, 2003). For example, Wilson et al. (2003) observed small effect sizes for positive changes in students' behaviors when an intervention was poorly implemented.

Second, there is some evidence to suggest that teachers may find Second Step more useful if the lessons are presented in accordance to Elias and Clabby's (1992) teaching framework. According to Elias and Clabby's (1992) model, the first teaching phase is self-control. Self-control skills include listening carefully and accurately,

remembering and following directions, concentrating and following through on tasks, calming self when under stress and carrying on a conversation without upsetting or provoking others. Many of these skills are included in the Impulse Control and Anger Management units, which are presented after the unit on Empathy. However, unless a teacher is aware that these lessons exist in the Second Step curriculum, the teacher may be less likely to implement the program, as was the case with a teacher in this study.

Finally, without support from school administrators and principals, treatment implementation becomes seriously jeopardized (Fagan & Mihalic, 2003). Teacher buy-in, or support for a program is largely depended on the degree to which support is provided from administrators. Without this key variable, the acceptability of a treatment may be compromised, which in turn may lead to lower levels of treatment adherence.

### Outcomes

The final research question centers on the degree to which behavioral outcomes as measured by changes in office referrals and suspension data were observed as a result of the implementation of the Second Step curriculum. A direct correlation between the use of Second Step and the reduction in office referrals and suspensions cannot be made due to the low levels of treatment integrity practices used by teachers in this study. Given that poorly implemented interventions generally yield small positive changes in student behavior (Wilson et al., 2003), the changes in the office referrals and suspension rates are attributable to other “unseen” variables, as suggested by Weissberg et al.’s (1989).

### Limitations of the Study

Although this study provides preliminary information regarding the treatment integrity levels and acceptability of the Second Step curriculum with teachers from two

urban schools, a number of limitations to this study are present. First, this study did not utilize a randomized research design. Schools were chosen based on their use of Second Step for the past two years and their use of a measurable office referral system. The fact that the schools chose to implement an office referral system may suggest that they were very invested in examining the degree of behavioral changes observed in their student populations. Both schools were already utilizing other forms of interventions to address student behavior (e.g., peer mediators, TWA, and Tribes). Given that both schools focused on aggressive behavior through the use of previously implemented strategies, it may be possible that this may place these schools in a different category from other schools that have not attempted to address school violence systematically aside from using student suspensions.

A second limitation of this study was that no control schools were available to examine changes in student behavior as a result of no interventions being implemented. Again, it was difficult to find schools that utilized a measurable office referral system. It appears that schools that do so may more likely attempt to use an intervention to curtail students' aggressive behavior.

A third limitation of the study is that the two schools used in this study were not similar in many aspects. The schools differed in the percentages of specific ethnic groups. Lewis School reported higher medium family incomes, as well as a lower percentage of students eligible to receive a free or reduced lunch, when compared to Coble School. Although many of the crime rates were very similar for both schools, the neighborhood surrounding Coble School experienced a higher incidence of homicides than that of Lewis School. These socioeconomic status patterns and levels of



neighborhood violence often impact the development of aggressive behavior in children (McLoyd, 1998; Myles & Simpson, 1994). The sizes of both schools were also different.

A final area of limitation was the sample groups utilized. A majority of the teachers at Coble School were new (e.g., two or less years teaching), while most of the teachers at Lewis School had five or more years of teaching. An equal sampling of teachers across grades did not occur. Instead, most teachers sampled at Coble School taught third grade classes, while teachers at Lewis School taught second, third and fifth. Although the curriculum is the same for grades first through third and for grades fourth through fifth, matching the same number of teachers per grade may provide additional insight into barriers and contributors to treatment integrity levels.

#### Implications for Practice

Bandura's social learning theory states that children learn aggressive behavior through observing the behaviors of others. External reinforcement such as praise by peers or adults often encourages students to engage in aggressive behaviors (e.g., gang fighting) or prosocial behavior (e.g., breaking up a fight). Social skills training programs provide students with the opportunity to learn prosocial skills needed to decrease aggressive behavior through the use of modeling and rehearsing a skill and getting feedback on the rehearsed skill. Social skills training programs, like Second Step, can be used to curtail student aggression. School psychologists can aid in reducing school violence by assisting schools with the implementation of an appropriate social skills training program. These programs provide hope in decreasing school violence as many of them are built on social learning theory. Observing behaviors of others has been found to increase aggression or other specific behaviors including kindness.

The data from this study adds to the existing research on social skills training, specifically in regards to the Second Step curriculum. First this study utilizes a case study method to examine the degree to which Second Step was accepted by teachers and implemented with integrity. The case study method provides descriptive interpretations of the degree to which various phenomenon impact each other (Stake, 1995). A second area of interest was the degree to which the use of Second Step leads to behavioral changes as measured by changes in the numbers of office referrals and suspensions.

This data provides a rich description of teachers' implementation practices, including the degree in which they implemented Second Step with integrity, and of teachers' acceptance of the curriculum. The results of this study suggest support for a positive relationship between treatment acceptance and treatment integrity for one teacher who deemed the program as important and relevant and implemented it with acceptable levels of integrity. Teachers who did not view the program as relevant or who viewed the lack of time as a significant barrier, implemented Second Step with low levels of integrity, suggesting a negative relationship between treatment acceptance and treatment integrity. Because the treatment integrity levels were low, limited inferences can be obtained from changes in the suspension and office referral rates obtained at both of the program schools.

While no research has been conducted on the components of Second Step that are most effective, Goldstein (1985) suggests that social skills training programs utilize a model, rehearse and feedback mode of instruction in order to encourage retention of the skill concepts and behaviors. Additionally, although Grossman et al. (1997) observed changes in student behavior, without data provided regarding the treatment acceptance of

Second Step and the treatment integrity levels used by the classroom teachers in the Grossman study, it is unclear whether these observed changes were attributable to the implementation of Second Step, or to other “unseen” variables.

An important observation that occurred as a result of this study is that teachers were generally enthusiastic about sharing their experiences with this curriculum.

Teachers discussed the fact that they wanted to talk about their experiences in hopes that they could benefit others. The focus group experience allowed teachers the opportunity to reflect on what they did, how they felt about it and what modifications they would make in the future. School psychologists and those who conduct program analysis should provide teachers with an opportunity to talk about their experiences. This allows teachers time to reflect on what strategies worked for them, as well as their colleagues. This information in turn can aid school districts and individual schools when deciding whether or not to adopt a particular curriculum.

Although this study did not utilize a non-program school, several findings were raised that warrant consideration.

- (a) Support from key program personnel including project directors is crucial in order to ensure that Second Step is being implemented with integrity.

Teachers need feedback regarding their implementation practices as low levels of treatment integrity could lead to poor results (e.g., no change in student aggression).

- (b) Teachers require initial training in the curriculum in order to familiarize themselves with the curriculum content. On-going training emphasizing

treatment adherence should also be provided to encourage continued use of the curriculum.

- (c) The curriculum may be most beneficial if used with English language speakers only. Teachers in schools with students who speak various languages should be aware that modifications to the language of the curriculum might be necessary.
- (d) The program should be implemented on a school wide basis. This will encourage and familiarize students, staff and community members with the language and skill concepts present in the curriculum.
- (e) Teachers should focus on modeling the new skill concept, providing opportunities for practice of the new skill and feedback for the students' performance. Use of these key variables may increase the likelihood for positive changes in students' behavior.

#### Future Directions

Schools continually face the challenge of dealing effectively with student aggressiveness and school violence. While extreme forms of violence such as homicides are not regular disasters faced by schools, issues of bullying, taunting, harassment and fighting can occur on almost a daily basis at most schools. The use of appropriate interventions is warranted given the need for schools to address this common issue.

Although schools are aware of their issues, they often struggle with finding appropriate strategies and interventions to utilize to address issues of student violence. The plethora of school-based interventions may create some confusion when choosing an appropriate intervention. Part of the reason for this confusion is the lack of appropriate

outcome research demonstrating the effectiveness of these interventions (Gottfredson et al., 2000). Some school-based interventions have provided at least initial outcome data, but generally fail to provide data on the treatment integrity measures and levels utilized by the intervention implementers.

As school psychologists, it is important to first gain an understanding of the research base on variables that impact successful implementation of intervention. Fagan and Mihalic (2003) provide a very useful framework for understanding key implementation variables that need to be in place before an intervention is utilized. Once a potential social skills training intervention is identified, the framework provided by Ladd and Mize (1983) and Elias and Clabby (1992) can illuminate whether or not the program has many of the lesson components needed to increase the likelihood of positive behavioral outcomes. Levels of treatment integrity need to be monitored throughout the program implementation, with opportunities for collaboration among colleagues and additional time in teachers' schedules for implementation of the intervention. A systematic manner of implementing an intervention that utilizes preceding suggestions may very well increase the likelihood that positive changes in students' behavior will occur. In this manner, the level of school violence may be decreased, providing schools the opportunity instead to focus on the arduous task of teaching students to excel academically.

APPENDIX A

Overview of the Second Step Curriculum

According to the Teaching a Lesson portion of the Teacher's Guide (Committee for Children, 1992, p. 15), the Second Step curriculum is built on the following goals:

1. To increase children's ability to:
  - a. Identify other's feelings,
  - b. Take other's perspectives, and
  - c. Respond empathically to others.
2. To decrease impulsive and aggressive behavior in children through:
  - a. Applying a problem-solving strategy to social situations and
  - b. Practicing behavioral social skills
3. To decrease angry behavior in children through:
  - a. Recognizing angry feelings, and
  - b. Using anger-reduction techniques

Some of the language concepts discussed during these lessons include the concepts of what a feeling is and what it is not (e.g., Craig is afraid, he is not surprised"), the conjunction "and", and the connectives "same-different", "now-later," "before-after," "some-all," "if-then" and "why-because". The transfer of learning steps encourage the Second Step facilitator to help students identify or remember specific time periods in which they might use or have used their new empathy skills. For the impulse control unit, students are taught the skills necessary to stop and think through a problem. Students are taught five problem solving steps including identifying the problem, identifying possible solutions, assessing the safety of the solution and the impact the solution may have on the feelings of others, considering the fairness of the solution and

the probability of how well the solution may work, choosing a solution and using it, and finally, identifying whether or not the solution is working and what changes may need to occur if the solution is not working. The target behaviors taught in this unit include joining in, ignoring distractions, interrupting politely, dealing with wanting something that is not yours, asking for help in a positive way, playing a game, asking permission, apologizing, dealing with peer pressure, resisting the temptation to steal, and resisting the temptation to lie. Thinking out loud, a problem-solving strategy that targets any developmental lags students may have in their ability to control an impulse, teaches students the skills needed to talk through the problem solving steps out loud. The language concepts utilized during this unit includes: a) identifying a problem and solving it; b) learning how to brainstorm solutions; and c) gaining behavioral skills such as joining in, ignoring distractions, interrupting politely, sharing, trading, taking turns, sportsmanship, asking permission, starting and participating in conversation, apologizing, peer pressure, temptation, stealing, lying, and trust. After a lesson is presented, students should be coached in thinking through their own problems out loud in order to encourage transfer of learning. Finally, for the anger management unit, students are taught various stress reduction techniques aimed at directing anger feelings into socially acceptable means. According to the Teacher's Guide (p. 47), "Anger management seeks to break or reverse this cycle of anger escalation by substituting positive coping statements and psychological techniques to reduce the physical arousal pattern." The steps used in achieving this goal that are taught are as follows:

#### What to Do When You Are Angry

1. How does my body feeling?



2. Calm down:
  - a. Take three deep breaths
  - b. Count backwards slowly.
  - c. Think nice thoughts.
  - d. Talk to myself (“Calm down”)
3. Think out loud to solve the problem
4. Think about it later:
  - a. Why was I angry?
  - b. What did I do?
  - c. What worked?
  - d. What didn’t work?
  - e. What would I do differently?
  - f. Did I go a good job?

The specific target behaviors that are identified include keeping out of a fight, dealing with name-calling and teasing, dealing with criticism, accepting consequences, dealing with disappointment, dealing with an accusation, making a complaint. The key language concept for this unit is learning to calm down.

There are four separate kits that are available for use. The first kit is for the preschool and kindergarten students. Another kit is used with grades one through three. A third kit is available for grades four and five, while the fourth kit is available for grades six and eight. Each kit contains several 11”x17” lesson cards. Each lesson card contains unit goals, concepts and language concepts, objectives, notes to teacher, story and discussion questions, and transfer of training ideas. Lesson presentations last approximately 30-45 minutes and are broken down into 10-20 minutes for the story and

discussion, 15-20 minutes for the student and teacher role plays, and five minutes for closure and setting up transfer of training. According to the Committee for Children (1992), the scope and sequence of the curriculum should be closely followed. During the presentation of the lesson, the facilitator holds the lesson card so that the picture is displayed to the students. The story and the questions are then read from the back while each student is presented with the opportunity to view the picture. Open-ended queries including “What might happen if...?” are encouraged in order to facilitate discussion. Suggested answers are also provided on the lesson card for the purposes of providing guidelines for the discussion and are not intended as absolute answers. Role-plays occur after the presentation and discussion of the story and targeted social skill. The facilitator is encouraged to provide a model of the skill by using detailed guidelines including:

- 1) Play the role of the main character, the person performing the behavioral steps.
- 2) Portray the main character as a person of similar age and verbal ability as the students (i.e., don't use sophisticated, adult language).
- 3) Model the behavioral steps in the correct sequence. You may want to replay the scene, pointing to the steps on the poster as you do them.
- 4) Keep the role play simple by performing the steps without a lot of extraneous dialogue or action.

After the role play, the facilitator is instructed to:

- 1) Ask if each step was followed
  - 2) Discuss the outcome of using the skill, i.e., what did the main character gain?
  - 3) Invite critique by asking what you did well and what you could improve upon?
  - 4) Model self-reinforcement, e.g., “I think I did a good job.”
- Feedback during the student role plays is strongly encouraged from the facilitator as well as the rest of the class. For those lessons that do not include a role play, suggested

activities are included on the lesson cards. These activities might include physical exercises or games and are used to provide reinforcement and closure of the lesson.

APPENDIX B

Initial Classroom Observation Checklist

## King County School District

Participant # \_\_\_\_\_  
Recorder \_\_\_\_\_Unit: Empathy  
Lesson title: Intro to Empathy Training  
Lesson #: 1

		Yes	No
	N/A		
#1.	<b>Story Presentation</b> <ul style="list-style-type: none"> <li>• Teacher had all the materials needed to complete the lesson</li> <li>• Showed photo to all children</li> <li>• Nonjudgmental of children's responses</li> <li>• Students engaged throughout the lesson</li> <li>• Managed participation and kept pace flowing</li> </ul>		
#2	<b>Discussion</b> <ul style="list-style-type: none"> <li>• Teacher asked what might happen if everyone talks at once</li> <li>• Teacher asked what might happen if some students were playing when in the groups</li> <li>• Teacher asked how might one felt if it was their turn to talk and the others weren't listening. (what is a good rule about listening to others?)</li> <li>• Teacher repeated the rules a second time</li> <li>• Teacher discussed when the rules needed to be used today</li> </ul>		
#3.	<b>Teacher Role Play</b> <ul style="list-style-type: none"> <li>• Modeled the lesson's skill, behavior or concept accurately</li> <li>• Teacher read prompt before role play</li> <li>• Pointed out the steps before and after model role play</li> <li>• Teacher asked each set of questions in sequence</li> <li>• Evaluated performance of student role plays</li> </ul>		
#4.	<b>Student Role Plays</b> <ul style="list-style-type: none"> <li>• Facilitated student role plays smoothly and clearly</li> <li>• Used suggested student role play scenarios outlined</li> <li>• Used appropriate cueing and coaching</li> <li>• Gave children appropriate performance feedback</li> </ul>		
#5.	<b>Activity</b> (on some lessons in place of role plays) <ul style="list-style-type: none"> <li>• Teacher read the activity prompt</li> </ul>		

- Facilitated activity smoothly and clearly
- If activity was needed, teacher had necessary materials available

#6. **Transfer of Training**

- Helped children target times when they might or have used their new skills

#7. **Home**

**Distributed the suggested take-home letters**

APPNEDIX C

Final Classroom Observation Checklist

## King County School District

Participant # \_\_\_\_\_  
 Recorder \_\_\_\_\_  
 Grade: \_\_\_\_\_  
 # of Students: \_\_\_\_\_  
 Time began: \_\_\_\_\_  
 Time ended: \_\_\_\_\_

Unit: \_\_\_\_\_  
 Lesson title: \_\_\_\_\_  
 Lesson # \_\_\_\_\_

**Point System:**

- 0- Not present (less than 50% or 0-1 items/times)**
- 1- Somewhat present (50%-75% or 1-2 items/times)**
- 2- Moderate (75% or greater 3-4 items/times)**
- 3- All items present (100% 4 or more items/times)**

Yes                  No                  N/A

Points

**#1. Story Presentation**

- Teacher had all the materials needed to complete the lesson
- Showed photo to all children
- Teacher used prompts on the card
- Managed participation and kept pace flowing

**#2 Discussion**

Teacher asked all of the questions on the card

\_\_\_\_\_ # of questions asked

\_\_\_\_\_ % of questions asked

**#3. Teacher Role Play**

- Modeled the lesson's skill, behavior or concept Accurately
- Teacher read prompt before role play
- Pointed out the steps before and after model role play



- Teacher asked each set of questions in sequence

#4. **Student Role Plays**

- Facilitated student role plays smoothly and clearly
- Used suggested student role play scenarios outlined
- Used appropriate cueing and coaching
- Gave children feedback about their performance
- Asked students to evaluate their own performance

#5. **Activity** (on some lessons in place of role plays)

- Teacher read the activity prompt
- Facilitated activity smoothly and clearly
- If activity was needed, teacher had necessary materials available

materials used

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#6. **Transfer of Training**

- Helped children target times when they might or have used their new skills

#7. **Home**

Distributed the suggested take-home letter

APPENDIX D

Teacher Focus Group Protocol

King County School District

Introduction- (To be reviewed and stated by the facilitator only)

Introduce self and cover the following:

- Participation is voluntary and confidential (names not connected to discussion)
- Informed consent must be obtained for each teacher.
- Tape recording (make sure there are no objections, one person speaking at a time).
- The purpose of this focus group is to focus on the **implementation** of the Second Step Curriculum.
- The total time should be about 60 minutes. We hope to spend about 8 to 10 minutes on each section.

The purpose of this focus group is for us to hear what you have to say about the Second Step Program that was recently implemented at your school. We are particularly interested in how and to what extent the Curriculum has been implemented in your classrooms and in the school as a whole. We're asking you because you are the experts, as you took part in the program.

Questions

**1. How did you teach the Second Step Curriculum this year?**

**Probe:** Did you or did you not have to share a Curriculum Kit? How did that affect your ability to teach the Curriculum?

How many days per week and minutes per lesson were used in teaching Second Step?

Did you follow the specified sequence of the Curriculum? Why or why not?

Did you use Second Step skills and concepts outside of the formal lessons? If so, how?

How did you utilize the District coaches?

Tell us some of the ways you reinforced the Second Step skills and concepts outside of any formal lessons throughout the school day and week.

What was the greatest challenge in implementing this program? How was this issue resolved?

**2. How were the students involved with the lessons?**

**Probe:** What strategies did you use to engaged your students in the discussion portion of the lessons?

How often did you conduct role plays or use the suggested activities? If so, how did your students respond to them?  
Did you assign any homework using Second Step skills/ topics?

**3. How did you involve parents in your Second Step Curriculum?**

**Probe:** As a school, what specific Second Step activities or lessons were parents involved in?  
Did you send home letters?  
Did you show the family overview video?

**4. If you could improve the Curriculum, including how it is implemented, what would you do?**

**Probe:** Was there time set aside to discuss how the Second Step Program was going? Would such time for discussion be valuable?  
How was your school administration involved in the implementation?  
How could school administrators be of greater help?

**5. What do you remember about the Second Step Curriculum, from your perspective?**

**Probe:** Did your students understand the content of the lessons?  
What did you like about it?  
What was most important in making it an effective tool?  
Was there anything you didn't like about it?

**6. How did the Curriculum affect the school climate here at your school?**

**Probe: Did you notice a decrease in the number of office referrals?**  
Do you feel that students have benefited from the Curriculum? If so, how?  
Have you noticed any changes in your students' language and behavior?  
Did school climate improve? If so, how, when and where?  
Did verbal aggression decrease? If so, how, when and where?  
Did physical aggression decrease? If so, how, when and where?

**7. How did teaching the Curriculum affect you personally?**

**Probe:** Did teaching the Second Step curriculum affect the way you respond to conflict among students or between teachers and students?  
Did using the Curriculum make you more conscious of how students interact?

APPENDIX E

Principal Interview Protocol

## King County School District

The purpose of this interview is to ascertain your perception of the utility of the Second Step program. I am also interested in how teachers implemented Second Step. I am particularly interested in how and to what extent the Curriculum has been implemented in the classrooms and in the school as a whole. I am asking you because you are the experts, as you took part in the program.

1) Is Second Step implemented on a school-wide basis (i.e., every teacher, every classroom)?

Probe: How did your school choose to use Second Step?  
What type of training did the teachers receive?  
Does each teacher have his/her own kit?

2) How were teachers addressing verbal and physical aggression before [name of school] adopted the Second Step program?

Probe: What program was in place before adopting Second Step?

3) In your opinion, are teachers following the lesson sequence or could they pick and choose which lesson they wanted to teach?

4) How often are teachers expected to implement Second Step (days, minutes)?

5) Tell me some of the ways in which teachers or the school have/has reinforced the Second Step skills and concepts outside of a formal Second Step lesson?

6) How are the district coaches utilized?

7) Is there opportunity for families to get involved in the Second Step program?

8) In your opinion, what is the greatest benefit of implementing Second Step? The greatest challenge?

9) How systematically are teachers using the office referrals?

10) Has there been a decrease in verbal and/or physical aggression since implementing Second Step? If so, how?

APPENDIX F

Consent Forms for Teachers



Dear Teachers:

My name is Jocelyn Reed and I am a school psychologist with our school district. I am also completing my graduate work at the University of Maryland. Your school is presently utilizing the Second Step: A Violence Prevention Curriculum for the 2002-2003 academic school year. I am seeking to understand the types of intervention practices teachers use when implementing this program. This information will aid other teachers who desire to use the program, by providing a guide outlining the implementation steps needed to achieve the desired positive behavioral outcomes for their students.

As part of this evaluation, I will be conducting a focus group at your school. I am asking for volunteers to participate in a 60 minute structured focus group interview that will be audio taped. I would also like to conduct two classroom observations in May or June along with research assistant who I have trained, while you are conducting a Second Step lesson. The purpose of the observations is to understand the implementation steps that other teachers should use when implementing this program.

Your participation is completely voluntary and you will be free to end your participation at any time during this study. The transcripts from the group interview will be utilized only to obtain themes regarding the implementation practices used by teachers, and every effort will be made to maintain your anonymity. Your specific response(s) may be included in my dissertation study, but neither your name nor the name of your school will be provided in my dissertation study. A copy of my dissertation will be made available to your school, after the study has been completed.

Please indicate on the consent form whether or not you would like to participate in this study. Please place the completed portion of the consent form in XXXXX's mailbox. If you have any questions or would like additional information please feel free to call me at (XXX-XXXX) or (XXX-XXXX). Thank you for your support and participation.

Sincerely,

Jocelyn G. Reed, MEd  
Credentialed School Psychologist  
Doctoral Candidate,  
University of Maryland

Identification of Project/ Title	An Examination of Treatment Integrity Practices and Behavioral Outcomes When Utilizing the Second Step Curriculum
Investigator Name:	Jocelyn G. Reed
Procedures	I will participate in a structured focus group interview in May or June that will last approximately 60 minutes. In addition, I will be observed in my classroom during two Second Step lesson scheduled at my convenience in May or June.
Confidentiality	I understand that all information conducted in this study is confidential and neither my name will nor the name of my school will be revealed within any documentation of this study.
Risks	I understand that there are no foreseeable risks to my participation within this evaluation study. No information about specific teachers will be revealed.
Benefits, Freedom to Withdraw, & Ability to Ask Questions	I understand that this study is not designed to help me personally, but to help my school and others in determining the effectiveness of the violence prevention program. I understand that I am free to ask questions or to withdraw participation from the study at any time without penalty.
Contact Information Of Investigators	Dr. William Strein CAPS Department, University of Maryland (XXX) XXX-XXXX Jocelyn G. Reed King County School District (XXX) XXX-XXXX

\_\_\_\_\_ I would like to participate in the completion of interview and classroom  
observation for the evaluation of the violence prevention program.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
date

APPENDIX G

Consent Form for Parents

May 1, 2003

Dear Parents:

My name is Jocelyn Reed and I am a school psychologist with our school district. I am also completing my graduate work at the University of Maryland. Your child's school is presently utilizing the Second Step: A Violence Prevention Curriculum for the 2002-2003 academic school year. I am examining the types of intervention practices teachers use when implementing this program. This information will aid other teachers who desire to use the program, by providing a guide outlining the implementation steps needed to achieve the desired positive behavioral outcomes for their students.

As part of this evaluation, I will be conducting classroom observations from April to June, examining how teachers are using the Second Step curriculum with their classrooms. The classroom observations will last 30-45 minutes and will only occur when your child's teacher is teaching a Second Step lesson. A trained research assistant who will also be observing teachers teach Second Step, will accompany me during some of my classroom observations.

The observations will only focus on the way that the teacher is implementing the lesson. No specific information regarding your child, such as his/her name, or your child's behavior will be recorded or used for this research study. Similarly, the name of your child's school will not be provided for this study. The participation of your child is completely voluntary and you will be free to end his/her participation at any time during this study.

Please feel free to call me at XXX-XXXX or XXX-XXXX if you have any questions or would like additional information. Thank you for your support and participation.

Sincerely,

Jocelyn G. Reed, MEd  
Credentialed School Psychologist  
Doctoral Candidate,  
University of Maryland

APPENDIX H

Consent Forms for Principals

Dear Principal:

My name is Jocelyn Reed and I am a school psychologist with our school district. I am also a completing my graduate work at the University of Maryland. Your school is presently utilizing the Second Step: A Violence Prevention Curriculum for the 2002-2003 academic school year. I am seeking to understand the types of intervention practices teachers use when implementing this program. This information will aid other teachers who desire to use the program, by providing a guide outlining the implementation steps needed to achieve the desired positive behavioral outcomes for their students.

As part of this evaluation, I will be conducting a focus group at your school. As the school's administrator, I would like to invite you to participate in a 30 minute structured interview that will be audio taped. The purpose of this interview is to gather information related how Second Step was chosen and utilized in your school.

Your participation is completely voluntary and you will be free to end your participation at any time during this study. The transcripts from the interview will utilized only to obtain themes regarding the implementation practices used by your school, and every effort will be made to maintain your anonymity. Your specific response(s) may be included in my dissertation study, but neither your name nor the name of your school will be provided in my dissertation study. A copy of my dissertation will be made available to your school, after the study has been completed.

Please indicate on the consent form whether or not you would like to participate in this study. Please place the completed portion of the consent form in XXXXX's mailbox. If you have any questions or would like additional information please feel free to call me at (XXX-XXXX) or (XXX-XXXX). Thank you for your support and participation.

Sincerely,

Jocelyn G. Reed, MEd  
Credentialed School Psychologist  
Doctoral Candidate,  
University of Maryland

Identification of Project/ Title	An Examination of Treatment Integrity Practices and Behavioral Outcomes When Utilizing the Second Step Curriculum
Investigator Name:	Jocelyn G. Reed
Procedures	I will participate in a structured interview in May or June that will last approximately 30 minutes.
Confidentiality	I understand that all information conducted in this study is confidential and neither my name will nor the name of my school will be revealed within any documentation of this study.
Risks	I understand that there are no foreseeable risks to my participation within this evaluation study. No information about specific teachers will be revealed.
Benefits, Freedom to Withdraw, & Ability to Ask Questions	I understand that this study is not designed to help me personally, but to help my school and others in determining the effectiveness of the violence prevention program. I understand that I am free to ask questions or to withdraw participation from the study at any time without penalty.
Contact Information Of Investigators	Dr. William Strein CAPS Department, University of Maryland (XXX) XXX-XXXX Jocelyn G. Reed King County School District (XXX) XXX-XXXX

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\_\_\_\_\_ I would like to participate in the completion of interview and classroom  
observation for the evaluation of the violence prevention program.

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Signature

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date

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