The Effectiveness of Implementing A Violence Prevention Curriculum: Second Step within Preschools

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Special Education, Early Childhood Special Education

By

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ABSTRACT

THE EFFECTIVENESS OF IMPLEMENTING A VIOLENCE PREVENTION CURRICULUM: SECOND STEP WITHIN PRESCHOOLS

By

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Master of Arts in Special Education,

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The purpose of this study is to evaluate the effectiveness of implementing the *Second Step: A Violence Prevention Curriculum*, with young, at risk preschoolers (ages 3-5 years) within a school district in Southern California. *Second Step* is a research-based violence prevention program intended for children in pre-kindergarten (Pre-K) through middle school. The Pre-K version of the *Second Step* is designed to teach preschool age children social and emotional skills to reduce aggressive behaviors and help promote positive engagement with their peers and adults. In this study, *Second Step* lessons were implemented in a total period of nearly 14 weeks and in three preschool classrooms. Three participants (2 males and 1 female, age range 3-5) were selected for *Second Step* progress monitoring in order to assess the effectiveness of the intervention. Teacher rating reports, student evaluation of knowledge and skills, and behavioral observations were used to assess pro-social and maladaptive behaviors prior to and following implementation of the curriculum. In addition, pretest and post-test assessments in the areas of empathy, anger management, impulse control, and problem solving indicated that preschoolers increased pro-social behaviors and reduced aggressive ones. The study found significant increases in social-emotional literacy and teacher reported pro-social
behaviors. The findings contribute to a growing area of research on preventive intervention in early childhood. Further, this study of implementing an evidence-based social emotional program with preschool children in special education might provide early intervention educators with more effective means to address disruptive behavior.
CHAPTER ONE

Introduction

Social and emotional competence in early childhood is critically important to be ready for early school experiences. Research has shown a positive correlation between social and emotional development and academic functioning; children who are more socially competent to perform better academically and behaviorally (Agostin & Bain, 1997). Recently, there has been an increase in national attention regarding the relationship between social and emotional readiness and school success (US Department of Health and Human Services [USDHHS], 2001). Traditionally, school curricula have focused primarily on academic achievement, academic standards, and learning readiness (Logue, 2007), and there has been less emphasis on social emotional competence and skills. At the same time, the educational content and expectations for academic performance, across all grade levels, has increased significantly over the years. Due to research findings, demonstrating a positive relationship between academic success and social-emotional competence, there should be increased attention directed towards teaching and ensuring social skills in one’s early educational years.

Statement of the Problem

Young children at risk for behavioral problems typically lack the core social and emotional competencies necessary for success in school (Frey, Hirschstein, & Guzzo, 2000). While some children who exhibit challenging behaviors at an early age do “outgrow” such behaviors before entering school, others may exhibit continued and increased behavioral problems through childhood into adolescence and continue into young adulthood, leading to school failure, work-related problems, and social
maladjustment (Grossman et al., 1997). In this regard, addressing social-emotional and behavior problems during early developmental phases are crucial in order to prevent or lessen the impact of negative outcomes (Grossman et al.). Early educational interventions and school readiness programs offer support services that can teach the necessary social and emotional competencies to help foster healthy emotional growth and academic success for all children.

Teaching social and emotional skills as part of the early education curriculum is an important step for preventing the many negative outcomes for youths who develop behavioral and emotional problems (Kaiser, 2007). Preschool children who exhibit social, regulatory and emotional behavioral challenges are more likely to experience difficulties within the classroom that affect their ability to develop meaningful peer relationships, and benefit from learning opportunities (Fantuzzo, Bylotsky-Shearer, Fusco, & Wayne, 2005). As a result, these children are less likely to be socially and academically prepared for school (Huffman, Mehlinger, & Kerivan, 2000). For example, Fantuzzo et al. (2005) demonstrated that, in comparison to socially well-adjusted children, those who exhibited teacher reported social withdrawal were more likely to show lower levels of classroom engagement at school. Further, a significant relationship was observed between aggressiveness in the classroom and decreased levels of cooperation, engagement, and attentive learning.

In addition to the negative impact that behavioral problems may have directly on classroom performance, research demonstrates that behavioral problems may also negatively affect a child’s preschool placement (i.e., behavioral problems increase the risk of suspension); lead to disruption within the family; and negatively affect children’s
social emotional growth and development (Powell, Dunlap, & Fox, 2006). These potential negative outcomes speak to the importance of identifying students at-risk for behavioral and emotional problems at an early stage; so early intervention can be implemented.

**Purpose of the Study**

The purpose of this study is to implement *Second Step: A Violence Prevention Curriculum* (Committee for Children, 2002), and to evaluate its effectiveness with a small sample of preschool-aged children who were reported as displaying disruptive behaviors in the classrooms. The goal of this study is to increase young children’s ability to identify feelings, take others’ perspectives, respond empathetically, and promote social and emotional competence while decreasing angry and impulsive behavior and social-emotional problems, as a result of the teaching of a social-emotional curriculum. More specifically, this study proposes to examine the effectiveness of the *Second Step* program by evaluating, before and after the intervention, (1) student knowledge and skills related to empathy, impulse control, problem-solving, and anger management; (2) teacher-reported student changes in behavior problems; and (3) observed student behaviors (i.e., both problem behaviors and adaptive behaviors) within the classroom. The investigator of this study hypothesizes that as a result of the social-emotional intervention, the participants will demonstrate increased positive feelings about learning and being at school, enhanced relationship skills with peers, family and teachers; and lastly, show improvements in their behavior management in the classroom.
Significance of the Study

This study identifies and highlights significant areas related to emotional development in current literature and the field of early childhood education. When preschool students are identified as having disruptive behaviors in the classroom and/or with their peers, teachers and their families, early educators should be encouraged and trained to take preventive measures as early as possible, in order to foster a healthy social and emotional course of development. This study examines the effectiveness of a social emotional skills curriculum as a potential intervention to improve existing social, emotional, and behavioral problems in preschool students before their behavior intensifies and leads to later maladaptive outcomes.

Terminology

The following terms will be used throughout the study. These definitions are based on current research in the field:

At-risk: Children who show signs of developing a behavioral and/or emotional disorder demonstrated by lack of social skills, emotional competence, and who exhibit maladaptive behaviors in the classroom. Children at-risk for behavioral and emotional problems usually demonstrate lower academic achievement than their peers.

Second Step: A Violence Prevention Program: A research-based social-emotional curriculum that aims to improve students' social competence by developing skills in the areas of empathy, anger management, impulse control, and problem solving. Second Step is designed to be taught in the classroom or in a small group setting for prekindergarten to middle school students.
Empathy: A core moral emotion that allows children to understand how other people feel and how emotional expressions may vary for different people in different situations.

Anger Management: The ability for children to exhibit self-control and diffuse angry feelings.

Problem solving Skills: These involve deciding the socially appropriate course of actions in various social-emotional situations. The steps to problem solving, as defined by the Second Step program, include identifying the problem, generating possible solutions and implementing the most appropriate solution.

Pro-social skills: A term for behavior that is positive and healthy when dealing with emotions, conflict, choices, and relationships.

Preview of Remaining Chapters

In order to fully comprehend the importance of this study, a comprehensive review of literature is presented in chapter two. The methods and procedures of this study are discussed in chapter three; and the results, as they relate to the hypotheses, are addressed in chapter four. Finally, a discussion of the findings of this study, their relevance to the current literature, and conclusions are presented in chapter five.
CHAPTER TWO

Literature Review

Social and emotional competence is critically important for a child to be ready for school. Social-emotional competence requires the ability to detect, understand, and respond appropriately to the feelings of others. Social-emotional competence in the areas of empathy, impulse control, and social problem solving have been identified as factors that buffer students from risks, such as early problem behavior and poor relationships with peers (Frey et al., 2000).

**Prevalence of Behavioral Problems in Young Children/Preschoolers**

In the current school system, only students in special education with the most severe social-emotional needs receive support services for social-emotional support or training (Powell, Dunlap, & Fox, 2006). While any child found to have a disability is eligible for services, some of which may target social skills, only children found eligible under specific categories, which encompass behavioral difficulties, such as emotional disturbance (ED) or autism spectrum disorders (ASD), receive a higher level of targeted services in the area of social-emotional functioning. As defined by the *Individuals with Disabilities Education Improvement Act* (IDEIA, 2004), a child may be found to qualify for services under the category of ED if he or she exhibits such symptoms as an inability to learn that cannot be explained by intellectual or other factors, an inability to build and maintain interpersonal relationships, or a general pervasive mood of unhappiness or depression for a significant amount of time and to a degree which negatively impacts
their school performance. Additionally, children with ASD may qualify for special education services if their disability negatively affects their educational performance. Typically, children with ASD receive services that target social skills interfering with their academic and school success. However, many children, not just those eligible for special education under categories such as ED and ASD, have persistent behavioral problems; and failing to provide targeted social-emotional support to them may place them at higher risk for future behavioral and emotional problems.

In a review of prevalence rates of emotional and behavioral problems in young children, Campbell (1995) estimated that 10 to 15% of young children in the general population (i.e., nonclinical population of preschool and school aged children or who are not receiving services under IDEIA) have mild to moderate behavior problems, and that preschool aged children with disruptive behaviors are 50% more likely to develop more serious problems in later childhood. In a systematic review of 30 studies, Qi and Kaiser (2003) found the prevalence rates of behavior problems have been estimated at between 3 and 6% in the general child population with a higher incidence of, 10 to 25% among children of low-income families. In fact, preschool children enrolled in Head Start were found to exhibit disruptive behaviors at a higher rate than those observed in the general population. Further, the low socioeconomic status group appeared to exhibit more externalizing behavior problems (e.g., aggression, hyperactivity) than internalizing problems (e.g., anxiety, depression), 57% and, 31%, respectively (Qi & Kaiser). These statistics demonstrate that other factors, including demographic and socioeconomic characteristics, can contribute to differing rates of behavioral and emotional problems. Additionally, Randolph, Koblinsky, Beemer, Roberts, and Letiecq (2000) found the
following prevalence rates of internalizing and externalizing problems in males and females in a sample of African-American children enrolled in Head Start (i.e., a federally funded preschool program for low-income families) using parent reports and standardized questionnaires on the child behavior checklist: 25% of males exhibited externalizing behaviors, and 27% exhibited internalizing behaviors; in the female group, 40% exhibited externalizing behaviors, and 30% reported other types of behavior problems. These rates are considerably higher than what is typically observed in the general education of same aged children.

Therefore, in addition to students in special education, there are other child populations that have been documented as being susceptible to having high rates of behavioral problems that would benefit from early intervention services. If students with challenging behavior problems do not meet the criteria to receive special education services under IDEIA, other early intervention programs should be put in place to increase the capacity of teachers and parents to address the behavioral and social needs of young children who clearly need support. It is important to provide intervention to children at risk of behavioral and emotional problems before the problem behaviors begin to affect academic functioning. Without appropriate services, these children end up with impaired ability to interact appropriately with family and peers, often resulting in peer rejections and isolation; contribute to family stress; become stigmatized as problem children; fail to develop school readiness skills and behaviors; cause disruptions to other children’s learning, socialization, and safety; and contribute to burn out and turnover of preschool teachers (Mashburn & Pianta, 2006). Moreover, children with challenging behaviors have demonstrated to perform poorly academically in future years, engage in
delinquency and drug use, and then to have higher rates of depression and school dropout (Raver & Knitzer, 2002).

**Negative Outcomes for Children at Risk of Behavioral Problems**

It is important to provide early intervention to students with behavioral and emotional problems to prevent negative long-term consequences. For instance, aggressive behavior in childhood has been shown to predict later delinquency, substance abuse, depression, school dropout, and early parenthood (Frey et al., 2000; Reynolds, Temple, Robertson, & Mann, 2001). Additionally, longitudinal research has demonstrated that aggression, disruptive behavior, lack of prosocial skills, and inattention in kindergarten in males predicts future social maladjustment (Campbell, 1995). Also, children at-risk of behavioral problems have shown to be excluded from preschool programs (Gilliam, 2005), have been social and academic difficulties in school (Raver & Knitzer, 2002; Reynolds et al., 2001), and develop more serious mental health problems in later life (Emond, Ormel, Veenstra, & Oldehinkel, 2007).

**Exclusion from Preschool Programs**

Many preschool-age children are at risk of being excluded from early interventions, including preschool and childcare programs, due to their disruptive behavior. Gilliam (2005) found that a weighted national rate of preschool expulsion was 6.7 per 1,000 enrolled students, compared with 2.09 per 1,000 students in elementary, middle, and high school (e.g., three times more likely to be expelled from their preschool or childcare programs than K-12 students). In California, the rate of expulsion mirrors the national trend with 7.5 children per 1000 being expelled for behavioral problems in state preschool programs (Gilliam, 2005). These statistics are especially alarming because
the children who are being expelled from preschools programs are generally those who are most in need of early intervention and behavioral support in school and are not receiving them, resulting in children failing to attend and gain the benefits from a preschool education.

**Academic and Social Difficulties in School**

Children with behavioral problems also suffer academically and socially in school. In the classroom, challenging behaviors in preschoolers may pose a significant participation barrier, and their behavioral problems may be so great as to result in them being excluded from attending and participating in classroom activities and services (McGoey, Eckert, & DuPaul, 2002).

Research demonstrates that behavioral problems are associated generally with academic and social difficulties and poor school performance. Externalizing problems are associated specifically with academic underachievement. The development of positive peer relationships during the preschool years has been associated with positive adjustment in kindergarten, as well as positive academic outcomes (Hampton, 1999). Several studies highlight the likelihood of problems with peers that preschool students with behavioral problems may experience. For instance, in a study of preschool classroom behavior, Fantuzzo and McWayne (2002) measured 242 preschool children on aspects of peer-play behaviors, approaches to learning, classroom self-regulation, and classroom problem behaviors. They found children exhibiting classroom behavioral problems were likely to experience peer difficulties, as well.

Moreover, the researchers (Fantuzzo & McWayne, 2002) found appropriate peer play at home was associated with prosocial behaviors at school, which further correlated
with positive attitudes to learning in the classroom setting. For example, children with higher ratings on measures of social interactions also received higher ratings on positive approaches to learning, such as managing frustration, asking for and accepting help, and cooperating in group settings. Conversely, negative peer interaction was found to correlate with socially disruptive classroom behavior, poor academic achievement, and lower levels of participation in the academic setting. Therefore, preschool children who exhibit challenging social, regulatory, and emotional behaviors are more likely to experience difficulties within the classroom that affect their ability to develop normal peer relationships and to behave in ways conducive to learning (Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2005).

Other studies demonstrate students with particularly aggressive or disruptive behaviors may face even more negative outcomes in the classroom. Fantuzzo et al. (2005) investigated social-emotional functioning (i.e., competencies) in schools by assessing preschool aged children attending Head Start classes in the areas of early classroom behavioral problems, emotional regulation, interactive peer play, and approaches to learning. A relationship was found between aggressive classroom behavior and lower levels of cooperation, engagement, and attentive learning and greater difficulties interacting with peers within the classroom. Also, those children displaying disruptive behaviors in preschool were more likely to exhibit a gradual increase in these behaviors over the school year. According to results of this study, early negative social and behavioral problems place children at a higher risk for continued difficulties, particularly if timely identification and intervention does not occur (Fantuzzo et al.,
2005). It is also important to highlight the fact that early behavioral difficulties may lead to later mental health problems in some cases.

**Associations with Mental Health Problems**

In addition to behavioral problems in early childhood having a negative impact on their early education experiences, other studies also demonstrate that early behavioral problems can lead to serious, diagnosable mental health problems in later life. Emond et al. (2007) found temper, disobedience, and bossiness in early childhood to be associated with adolescent oppositional defiant disorder (ODD). Adolescents with aggressive conduct disorder (ACD) symptoms showed greater deficits in preschool social understanding. These results suggested poor social skills in preschool were associated with the development of ACD, and poor social understanding interacted with difficult preschool behaviors to predict later ACD. These findings were the same for both males and females. Another study (Harvey, Youngwirth, Thakar, & Errazuriz, 2009) examined the predictive association between preschool behavior and a later diagnosis of attention deficit hyperactivity disorder (ADHD) and ODD/conduct disorder (CD). Among their results, the researchers found that 58% of 3-year-olds with identified behavioral problems met the diagnosis criteria for ADHD and/or ODD/CD three years later. This and other studies shed light on the importance of addressing disruptive behaviors in early childhood.

**The Importance of Early Intervention for Behavioral Problems in Preschool**

There are many negative outcomes associated with childhood behavioral problems, demonstrating the importance of early intervention to help children succeed. Early intervention programs provide a unique environment, not only to enhance academic
achievement, but also for the development of social and emotional skills, feelings of self-worth, and motivation (Arnold et al., 2006). The early preschool years form the foundation for the years that follow. Experience gained in these early years helps children to develop skills in building and maintaining relationships with peers and develop a life-long love for learning.

Reynolds et al. (2001) found support for the effectiveness of early childhood intervention programs, such as **Head Start**, reporting that long-term follow-up assessment showed the group of children from the early intervention programs had a higher rate of high school completion, better academic achievement, fewer emotional and behavioral problems, lower drop-out rates, and fewer special education services at age 20, compared to children who did not attend early childhood intervention programs. The authors conclude these results suggest that early intervention programs can be beneficial for enhancing academic and social emotional readiness and providing young children with a strong foundation for future academic success.

The preschool years may be a particularly opportune time to address externalizing issues before the demands of formal schooling exacerbates problems. Reducing problems before elementary school may prevent the formal labeling of problems or school evaluation and associated stigma. The kindergarten screening, typically conducted with all incoming kindergartners by the corresponding school district, identifies children who may have social-emotional, behavioral, and academic learning needs. However, if these children are identified at an earlier point in time, such as during preschool, they may benefit from early intervention, potentially resulting in decreased behavioral, emotional, or academic concerns by the time they transition into kindergarten.
In kindergarten, children typically encounter a new peer group with which they will remain for several years. Alleviating behavior problems during preschool may avoid negative first impressions by peers who could be resistant to change. Similarly, initial teacher impressions may have lasting effects. Thus, preschool is an important period in the development of children’s feelings about school. Positive feelings about school might be fostered and maintained if problems can be addressed before the demands of elementary school are placed on the child (Arnold et al.). Addressing difficulties with social emotional skills provides young children with much needed skills to make the transition to school successfully (Raver & Knitzer, 2002).

A research synthesis provides evidence from a number of longitudinal studies that behavioral problems prevalent in the preschool years are often stable and lead to additional problems within the school classroom without early intervention (Qi & Kaiser, 2003). Early educational support programs are the ideal environments for implementing prevention programs and helping children get off to a good start on their educational journey (McMahon & Washburn, 2003). For instance, Arnold et al. (2006) found early educational programs could help prevent challenging behavior, reduce the risk for mental health problems, and improve family functioning. These studies support the initiative to teach social and emotional skills in preschool settings, to ultimately reduce aggressive behavior and increase the acquisition of social and emotional competencies in young children.

**Interventions for Children At-Risk for Behavior Problems**

Among school readiness proponents, there is considerable agreement to the importance of social and emotional development for successful school functioning. If
young children who have challenging behaviors do not participate in early intervention, their social development and competence is likely to be negatively affected (Blair, Fox, & Lentini, 2010). Early interventions can vary from individualized approaches, particularly for those children who have significant needs; consultation with teachers and families to improve the overall school climate; or the implementation of universal social-emotional curricula. Currently, in research and school settings, there is a collaborative movement in effort toward emphasizing, teaching, and promoting a healthy social and emotional development in children. In the following section, different models and approaches for teaching social-emotional skills to preschool and school aged children are discussed.

**Universal Interventions in the Response-to-Intervention Approach**

A current trend is providing social-emotional interventions and supporting universally all students by implementing a “Response-to-Intervention” (RTI) framework (Sugai & Horner, 2009). RTI provides informal intervention (e.g., interventions outside of special education) for children who are struggling academically, behaviorally, and/or social-emotionally, before the child is referred for special education and/or to prevent the child from being referred for special education. The three-tiered RTI model addresses challenging student behaviors at primary (i.e., universal), secondary (i.e., targeted), and tertiary (i.e., individual) levels of prevention (Bayat, Mindes, & Covitt, 2010). Primary and universal interventions in the first tier focus on supporting social competence and preventing challenging behavior through school-wide or class-wide interventions that promote positive behaviors in all children. Students who are still in need of academic or behavioral support after school-wide or class-wide interventions then advance to targeted
interventions at the secondary level. Similarly, students who do not respond to targeted interventions advance to individualized interventions at the tertiary level.

The RTI model has been used and described in the literature at the preschool level. For instance, the Teaching Pyramid Model for preschool students, which incorporates positive behavior support (PBS), is a model similar to RTI (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). The primary focus of the Teaching Pyramid Model is to use evidence-based practices at the universal, targeted, and individualized levels to promote the development of social competence, prevent challenging behavior among children at risk, and deliver individualized support to preschool children with persistent challenges (Fox et al.).

The universal and targeted levels of the Teaching Pyramid Model provide social-emotional learning strategies and prevention practices in home and classroom settings. Intervention programs that promote building positive relationships with family, peers, and early childhood staff; working to create high quality environments; and learning social emotional skills and emotional regulation can be used both within the universal and targeted tiers. Second Step is an example of such a curriculum, which can be used both classwide or in targeted, small-group interventions (Second Step will be discussed more fully in a later section of this chapter). At the tertiary level, individualized interventions for students who need more intensive support are implemented. Three-tiered interventions within the PBS model support the child’s development of new prosocial skills (Powell et al., 2006) by providing prevention strategies, teaching new skills, and teaching replacement behaviors for children who are at-risk for behavioral problems in one-on-one settings. The three-tiered model is an efficient way to provide
students with the degree and intensity of services they need, all within their own natural environments.

**Teacher Consultation with Mental Health Professionals**

The use of mental health consultation services to preschool programs has been used as a form of intervention to reduce the number of young children being expelled from educational settings because of their emotional or behavioral problems and to promote healthy social-emotional development (Gilliam & Shahar, 2006; Perry, Dunne, McFadden & Campbell, 2008). Cohen and Kaufmann (2005) define mental health consultation as an ongoing collaborative relationship between a mental health professional and early educator to prevent, identify, treat, and reduce specific behaviors of concern and to increase the overall quality of the classroom environment.

Gilliam and Shahar (2006) describe the importance of mental health consultation as a means of prevention for children with behavioral and emotional problems. They found the teachers who reported the lowest rate of school expulsion also reported having an on-going consultation for emotional, behavioral, and mental health concerns from school-based mental health professionals. Although these correlations cannot be identified as specific causes and effects, this information adds promising directions for future research on the relationship between mental health services and academic success.

Additionally, Perry et al. (2008) conducted a four-year study collaborating with mental health professionals on preventing violent behaviors demonstrated by preschool children. They found access to mental health consultation reduces the amount of expulsions from childcare and decreases problem behaviors. More importantly, their findings showed significantly increased social skills for children who received mental
health consultation, while maintaining their current childcare or school placement. In addition, mental health consultation increases the capacity of teachers and parents to address the behavioral and social needs that may be affecting the children (Cohen & Kaufmann, 2005).

**Formal Evidence-Based Social Emotional Curricula**

Social-emotional curricula can be used as universal supports for promoting positive social-emotional outcomes by helping create supportive early childhood and home environments. Social-emotional curricula teach all children necessary skills to encourage positive relationship with peers across all settings. Different social emotional curricula are designed for a range of populations which can be used as preventive measures for typically developing children, and other curricula have been developed specifically for children at risk, or for those who are exhibiting behavior challenges (Powell et al., 2006).

There is an increasing need for effective coping strategies for children who manifest problem behaviors. Teaching social emotional skills has been shown to lead to an acquisition of core social and emotional competencies that reduce aggressive behaviors in youth (Frey et al., 2000). Typical interventions include providing preschoolers with the skills to establish positive relationships with caregivers, adults, or peers. It is particularly important to provide young children with social emotional skills that may contribute to their resilience.

There is an array of social emotional curricula that have had well-documented evidence of effectiveness in improving the social-emotional functioning of children who are already at–risk, as well as those without documented behavioral problems. The
content of these programs includes topics such as cooperative play, friendship skills (e.g., sharing, turn-taking, helping), understanding and expressing emotions, empathy, anger management skills, and problem solving (Powell et al., 2006). Research has also examined ways to make programs more practical. For example, teaching these social-emotional curricula class-wide is an efficient approach since all students can receive this instruction as part of their regular school day. Teaching social-emotional curricula class-wide has resulted in significant decreases in inappropriate behaviors among most students who received the intervention (Committee for Children, 2002), which not only benefits those with disruptive or aggressive behaviors, but all children in class or school. Because of their universal nature, these programs may also help improve group cohesiveness and collaboration among students.

Research-based social and emotional curricula have been used by teachers as early school-based preventive models and are used widely among preschoolers. A few of these programs are: Incredible Years: Dina Dinosaur Classroom Curriculum Preschool/Kindergarten (Webster-Stratton & Reid, 2003), Promoting Alternative Thinking Strategies (PATHS, Domitrovich, Cortes, & Greenberg, 2007); First Step to Success (Walker, Severson, Feil, Stiller, & Golly, 1998); and Second Step (Grossman et al., 1997).

Three of the aforementioned programs have demonstrated efficacy in reducing externalizing behaviors in young children and promoting positive social-emotional skills: PATHS, Incredible Years Program, and Second Step. The PATHS curriculum uses a whole classroom approach. It is designed to prevent or reduce inappropriate behaviors and emotional problems in young children and enhance their social emotional
competence. Results showed a decrease in conduct problems (e.g., aggression), as well as a decrease in symptoms of depression and anxiety. Results also showed an improvement in students’ understanding and recognition of emotions, self-control, and problem solving skills (Domitrovich et al., 2007). Similarly, the Incredible Years program (Webster-Stratton, Reid, & Hammond, 2001), has been shown to increase parent-child interactions and child social problem solving, while decreasing problem behavior at home and at school. Combining the child curriculum with the Incredible Years parenting series (i.e., two major components of this program) was found to produce more significant improvements in home behavior than either component alone (Webster-Stratton & Reid, 2003). Further, this program is designed for use with small groups of young children identified with misconduct problems.

In a comparison of the differences among evidence-based social-emotional curricula for young children (Joseph & Strain, 2003), it was found that Incredible Years (Webster-Stratton et al., 2001) was developed using a clinical sample which placed high emphasis on parent education and involvement, and was best implemented within a small group setting. PATHS (Domitrovich et al., 2007), on the other hand, was initially designed for use with deaf children and now with both regular education and special needs children. One of the advantages of Second Step was that the program was developed for the general population, not only for at-risk students or students with behavioral problems, making the curriculum appropriate for class-wide teaching (Joseph & Strain, 2003). In addition, Second Step has been recognized as an exemplary program by the U.S. Department of Education’s (2001) Office of Educational Research and Improvement (OERI) panel for safe and drug-free schools and as a best practice or
“model” program by the USDHHS (2001) because it has been shown to be an effective program combined with its ease of implementation and accessible cost. Finally, Second Step is currently one of the most widely used social-skills programs in the U.S. and Canada and has been adapted for use in other countries (Frey et al., 2000).

Second Step: The Social-Emotional Curriculum of Focus

The focus of this study is on Second Step: A Violence Prevention Curriculum (Committee for Children, CfC, 2002); a widely used intervention program designed to address emotional and behavioral problems. This curriculum aims to prevent aggressive behavior by increasing empathic prosocial behavior. Second Step is a research-based, universal violence prevention program for pre-kindergarten to middle school aged children (CfC, 2002). The program is designed to be taught by classroom teachers, and provides lessons in social skills training infused throughout three units: empathy, anger management and problem solving (CfC, 2002). These lessons are developmentally appropriate for the intended audience and driven by multiple theories (e.g., cognitive social learning theory, self-control theory, social-information processing model) that provide much of the conceptual foundation of the Second Step program.

Research strongly supports the effectiveness of Second Step in fostering young children’s emotional and social well-being, in addition to improvement in overall class behavior. Several studies evaluated the effectiveness of Second Step and have shown promising results (e.g., Cooke et al., 2007; Frey et al., 2000; Frey, Nolen, Van Schoiack Edstrom, & Hirschstein, 2005; Grossman et al., 1997; McMahon, Washburn, Felix, Yakin, & Childrey, 2000; McMahon & Washburn, 2003). Cooke et al. investigated the curriculum’s effects on elementary-school students and included trainings and support to
staff, parents, and community members involved with children in and out of school. Results indicated significant positive changes on at least one of the variables of interest (e.g., positive approach/coping, caring-cooperative behavior, suppression of aggression, consideration of others). Frey et al. found Second Step to be an effective program in decreasing child behavior problems for children at risk of developing challenging behavior and increasing sociable interaction between peers.

Theoretical Support for Second Step: Cognitive Social Learning Theory

The Second Step curriculum is designed to be a school-based program, one in which students and school staff model, encourage, and reinforce the types of prosocial behaviors in combination with skills (e.g., perspective taking, emotion regulation) and problem solving strategies taught in the program. Students are given opportunities to rehearse prosocial skills and self-regulatory strategies through role-playing hypothetical social conflicts with other classmates or other similar strategies (Frey et al., 2000; Frey & Washburn, 2005).

The content of the Second Step curriculum is based on cognitive social learning theory (Frey, et al., 2000). Bandura, Ross, and Ross (1961) demonstrated how children learn and imitate aggressive behavior when it is modeled by adults in their environment. For example, children who exhibit violent behavior may have learned such behavior by watching their parents or caregivers respond to social conflicts with anger or aggression. Cognitive social learning theory emphasizes the value of learning social standards through observation and imitation, which have been found to have significant effects on learning these behaviors. Consequently, children watch the actions of others and discern social rules from the interactions. From their observations, children learn the
consequences of various actions, as well as the judgments that observers place on such actions. This relates to the reinforcement value contingent on a particular behavior. Cognitive behavioral techniques such as “self talk” are also used as tool to help children develop self-regulation and problem solving (Frey et al., 2000; 2005). Luria (1960) was the first to propose that the development and use of internalized speech is essential in learning controlled behavior. Since then, studies have demonstrated that teaching children to use speech to direct their behavior is an effective technique.

Theoretically, Second Step provides classrooms with sound and research-based interventions to increase prosocial behaviors, reduce aggressive behaviors, and improve school climate (CfC, 2002). Behavioral improvements are accomplished by promoting children’s use of cognitive, emotional, and behavioral skills to handle conflicts; reducing maladaptive beliefs about aggression; and promoting positive social goals and values (Frey, et al., 2005). As a result of Second Step, children can improve their prosocial behaviors, as defined by competence in peer interactions and friendships and in interpersonal conflict resolution skills. According to Grossman et al. (1997), the Second Step violence prevention curriculum can lead to a decrease in physically aggressive behavior and an increase in neutral and prosocial behavior in those students who participate in the curriculum in comparison to those that did not.

**Teaching Second Step in a Preschool Classroom**

Second Step is designed to be appropriate for teaching in classroom settings. This program was selected for use in the current study because a whole-class approach has the potential to foster the development of peer norms within the classroom that promote prosocial behavior within the target child or children who exhibits challenging behaviors.
Evidence suggests both peer and teacher norms about the unacceptability of aggression discourage aggressive behavior among individual students (McMahon & Washburn, 2003). Thus, the delivery of a social skills intervention through a classwide approach provides classroom norms which include emotion management, conflict resolution, and prosocial behavior. The Second Step program is an effective curriculum for teaching children social and emotional skills they need in order to reduce conflict and to help teachers spend more time teaching (Frey et al., 2005).

Further, the curriculum implemented at the preschool level contains age-appropriate language and materials that are captivating and interesting for young children. Teaching materials and techniques geared to engage young children, such as stories, puppets, simple games, pictures, and role-play are used. Skills are also taught through modeling, role-plays, and a photograph of children in a specific situation with an accompanying vignette to assist students in applying the skills to situations, such as interrupting politely, dealing with distractions, and fair ways to play. The Second Step program also targets emergent literacy skills because of its strong connection to later academic success (Fantuzzo et al., 2005). It promotes many aspects of academic development, including language, concepts, and fosters children’s academic interest and engagement.

Although the Second Step program has shown positive outcomes as both a prevention program and one that effectively decreases disruptive and antisocial behavior among the most aggressive students (e.g., Frey et al., 2005; Grossman et al., 1997; McMahon et al., 2000; McMahon & Washburn, 2003; Taub, 2001), as of yet, there have been few evaluations of the effectiveness of this program with preschool age children.
McMahon et al. examined *Second Step* with preschool and kindergarten children from low-income urban families residing in Chicago. Findings showed children demonstrated significant gains in social skills knowledge and decreases in conduct problems. In addition, students showed an increase in knowledge and skills related to empathy, a decrease in aggressive behavior, lower impulsivity, and a greater sense of school membership. Considering these positive preliminary outcomes, future research should focus on the effectiveness of this program when implemented with preschool age children.

**The Current Study**

The purpose of the current study is to evaluate the effectiveness of the *Second Step* program with preschool age children who display problematic behaviors in the classroom. More specifically, the effectiveness of the *Second Step* program in increasing pro-social behavior, knowledge and skills and decreasing aggressive behavior after the completion of the intervention was examined. Multiple sources of information were used to evaluate the effects of the program, including teacher report, knowledge and skills interview, and behavioral observation. It was anticipated that students that were provided the *Second Step* curriculum would demonstrate an increase in knowledge of social-emotional skills from pretest to posttest.
CHAPTER THREE

Methods

The study addressed the following research questions:

(1) Will students with challenging behaviors in preschool settings decrease their aggressive externalizing behaviors and increase in prosocial behaviors after participation in the Second Step curriculum in the classroom?

(2) Will students who participated in the Second Step curriculum demonstrate increased knowledge of social-emotional skills?

Based on previous research in early intervention on social-emotional issues and an analysis of the Second Step program, the researcher hypothesizes that the use of the Second Step curriculum will result in an increase in prosocial behaviors (as per direct observation), a decrease in externalizing behaviors (as per teacher-rating scale), and an increase in knowledge and skills in the areas of socialization and prosocial behaviors (as per student interviews) among target students. Prior to implementing the study, approval was obtained from the California State University Northridge, Human Subject Committee on February 7, 2012.

Setting

This study was implemented at a state-funded preschool program that serves young children from low-income families, designed to provide a caring educational environment for young children while their parents are working or enrolled in school. The center is operated by a unified school district in Southern California and funded by
the Child Development Division, State Department of Education. The preschool classrooms are open 12 months per year and offer extended care for working families (9 or more hours per day). The center serves approximately 130 families with a class size ranging from 17 to 24 students. Within the seven classrooms in the preschool, three were assigned for participation in this study. The student population is primarily Hispanic and of low socioeconomic status.

**Participants**

A total of 59 males and females between the ages of three to five years old participated in the *Second Step* violence prevention program through class-wide lessons. Participants were 53% male and 47% female. The demographic composition of the preschool was 90% Hispanic, 9% White, and 1% other or multiple ethnic groups. Of the three state-funded preschool classrooms in this study, two classrooms were full-day general education classrooms with 21 students each, and one classroom was a half-day general education classroom with 17 students. Classrooms were selected based on the level of challenging behaviors reported by the teacher. Selected classrooms presented the most significant behavioral challenges, including several students at-risk of being expelled or suspended from preschool due to their disruptive behaviors.

**Target Participants**

Although all students (*N*=59) in the three classrooms received the *Second Step* intervention, data were only collected on three target participants. Preschool teachers from each of the three selected classrooms identified and referred one student who they felt exhibited substantial delays in social skills, and who exhibited elevated levels of problem behaviors (i.e., aggressive, disruptive, inattentive, inability to develop
relationships with adults and/or peers, disliked by others, etc.). These were the target participants used in the present study. Based on teacher-report, all three of the referred participants had a history of being suspended due to his/her disruptive behavior and had a high-risk of expulsion. Additionally, one of the target participants was reported to have a diagnosis of speech and language delays, according to the preschool teacher. Parent consent was obtained for the three target students in order to collect additional data. The target participants were unaware of their selection for the observation and intervention sample. Of the three participants, one was female, and the other two were male. All of the participants’ ethnicities were reported as Hispanic by their parents (See Table 1).

**Preschool Teachers**

Each classroom had one main teacher and one paraprofessional. All teachers and paraprofessionals were female. Two teachers reported their ethnicity as “Hispanic,” two reported as “Caucasian,” and two reported as “African American.” All teachers reported highest level of education as a bachelor’s degree and have at least five years of teaching experience. The teachers in the three classrooms were expected to complete pre- and post-intervention teacher rating scales, using the *Devereux Early Childhood Assessment* (DECA), for each participant as part of the selection process and source of data to evaluate the effect of the curriculum on child behavior.

**Curriculum**

The preschool and kindergarten version of *Second Step: A Violence Prevention Curriculum* was used in the current study. It uses a format of 28 classroom lessons, using black and white photo cards depicting children in various social emotional situations and scripted on the reverse of the card. The story is read to students and the key concepts are
introduced through questions while guided throughout discussions. Some lessons are accompanied with puppets, “Be-Calm Bunny,” “Impulsive Puppy,” and “Slow-Down Snail” are used to teach impulse control skills and make it a fun learning experience. Additional materials include a list of suggested children’s books to be used as a follow-up for each lesson, posters of children displaying prosocial behaviors, and “hearts” to be used as positive reinforcement for the use of positive prosocial behaviors. The curriculum units are Empathy Training (Unit 1), Emotion Management (Unit 2), and Problem Solving (Unit 3). Each unit consists of 6 to 12 lessons for a total of 28 lessons. The first unit, Empathy, consists of 12 lessons and focuses specifically on identification of feelings or emotions, assuming others’ perspectives, responding emotionally to others, and expressing care and concern. The second unit, Emotion Management, consists of six lessons that focus specifically on techniques for calming down, impulse control, and dealing with angry feelings in a prosocial manner. The third unit, Problem Solving, consists of 10 lessons that focus on a three step problem-solving model: (1) How do I feel?, (2) What is the problem?, and (3) What can I do?

In the Second Step program, the first unit is on empathy which is fostered through practice of perspective-taking exercises, identification of various feelings or emotions in self and others, and appropriately responding to the feelings of others (Frey et al., 2000). Empathy is considered to be a core component of the curriculum. Lessons provide structured opportunities for all children to practice identifying emotional “cues,” and skills can be improved substantially through intervention (Frey et al., 2000).

The second unit of Second Step introduces anger management strategies to help children use self-control and diffuse angry feelings. Thus, anger management techniques
(e.g., deep breathing, counting aloud) are modeled and rehearsed to reduce distress, decrease the likelihood of aggressive behavior, and increase socially competent behavior (Frey et al., 2000). In this program, children are taught to identify when facing strong emotions, recognize body sensations produced when angry, and learn to engage in a relaxation technique when they are distressed, angry, and upset (CfC, 2002).

The last unit of the Second Step curriculum addresses social problem solving. Students are taught a problem solving strategy to use in various social-emotional situations (i.e., social dilemmas) at their level, which include identifying the problem, generating possible solutions, implementing a possible solution, and evaluating the effectiveness of the chosen solution (Frey et al., 2000).

**Intervention Design and Procedures**

The Second Step curriculum was taught twice per week, during 20 to 25-minute lessons, and to the entire classroom, as recommended by the program developers (i.e., 28 sessions over a 14-week period). The program is available in both English and Spanish. Because many of the preschool participants are dual-language learners (English and Spanish), curriculum material was presented in both languages; directions were read in English and were followed with Spanish translations. Thus, necessary adaptations were made by the researcher/Second Step instructor to ensure full understanding by both English and Spanish-speaking students. In order to assess the effectiveness of the curriculum, three types of data were collected pre and post curriculum implementation. Although data were only collected from the three target students, Second Step was taught to the entire class as to avoid singling out target students, as well as due to the belief that the Second Step program would be helpful and benefit all students.
Prior to data collection, the researcher met with parents individually to explain the purpose of the study and to clarify issues with confidentiality and data collection procedures. Three sources of pre- and post-data were used to evaluate the effectiveness of the curriculum on the three target student’s behavior: a standardized teacher-rating scale (Devereux Early Childhood Assessment, DECA), a student knowledge interview (Second Step Knowledge Assessment Interviews), and standardized direct observations (BASC-2 SOS). This procedure was used in order to track students’ progress throughout the Second Step lessons and measure their improvements.

The teacher-rating scale was administered for each of the three target students before and after the intervention. The student knowledge interview was conducted with three target students by the researcher, pre- and post-curriculum implementation. Students were assessed individually outside of the classroom in a quiet place. The direct behavioral observations were conducted with the three target students across multiple, routine preschool classroom situations (i.e., interactions with peers, involvement in structured and unstructured classroom activities, interactions with teachers) both prior to the start of the Second Step lessons in the preschool and after completion of the curriculum. These observations were conducted by a trained bilingual school psychologist who was blind to the goals of this intervention (e.g., study purposes, hypotheses, research design). In order to allow students in this study to become familiar with the presence of the school psychologist in the classroom, the psychologist spent the entire school day with the class on the day prior to data collection. This is believed to have also helped in reducing possible feelings of stigma and discomfort for the
participating students, which may be associated with being observed or having an awareness of being observed.

**Measures**

Three measures were used to assess the impact of the program on the children: teacher behavioral ratings (*Devereux Early Childhood Assessment*), child knowledge assessments (*Second Step Knowledge Assessment Interviews*), and behavioral observations (*Behavioral Assessment System for Children-Student Observation System*). Measures were administered prior to the initial *Second Step* lesson, and immediately after completing the final lesson.

**Devereux Early Childhood Assessment**

The *Devereux Early Childhood Assessment* (DECA: LeBuffe & Naglieri, 1998) is a standardized, norm-referenced, valid and reliable behavior rating scale for all children ages two to five. DECA results include T-scores and percentiles for the following domains: the three protective factors scales (i.e., Attachment, Self-Control, and Initiative), a total protective scale (i.e., which is comprised of the three protective factors scales), and a behavioral concerns scale. For the protective factors scales, there are 27 items that correspond with three scales, which measure different protective factors: Attachment (e.g., “responds positively to adult comforting when upset”), Self-Control (e.g., “calms himself/herself down when upset”), and Initiative (e.g., “asks another child to play with him/her”). An elevated score denotes higher rates of protective factors. Additionally, the DECA includes a 10-item behavioral concerns scale that measures a variety of challenging behaviors seen in preschool children. An elevated score in the behavioral concern scale denotes more frequent and intense problem behaviors. Teachers
were asked to rate different behaviors by placing a check mark in the box underneath the word (e.g., *Never, Rarely, Occasionally, Frequently, Very Frequently*) that best described the frequency with which the target behavior was being observed at the time. The DECA takes approximately 10-15 minutes to complete. Among the benefits of the DECA is its academic success predictive nature for primary grades, which is well documented by the test developers (LeBuffe & Naglieri, 1998).

**Second Step Knowledge Assessment Interview**

The *Second Step* evaluation interview (CfC, 2004) was used to assess knowledge and skills related to empathy, impulse control, problem solving, and anger management, both before and after the intervention; serving as one of the pre and post-measures in this study. Each interview took about 15 to 20 minutes and consisted of the presentation of 5 photographs along with 20 questions about the photographs (9 open-ended questions) related to (a) empathy, (b) impulse control, (c) problem solving, and (d) anger management. There were specific instructions for using probes to encourage the child to generate more than one response per question. Defined by a scoring protocol, the child received one point for each acceptable answer (e.g., appropriately identifying and naming a feeling or emotion discussed in the curriculum) and the points are added to calculate the Basic Skills total score. The maximum score that can be gained is 20 and the minimum is 0. Scoring interpretation is standardized with directions provided in the manual.

Although validity and reliability studies have not been conducted with this instrument, a study by McMahon et al. (2000) was used as the outcome criteria for establishing success of the *Second Step* program at the preschool and kindergarten level. Results from this study indicate that students showed increased social-emotional knowledge and skill in the
interview for both preschool and kindergarten children who received the Second Step intervention.

**Behavior Assessment System for Children, Second Edition-Student Observational Scale**

The Behavior Assessment System for Children, Second Edition-Student Observational Scale (BASC-2 SOS: Kamphaus & Reynolds, 2004) was used to systematically observe each target participant within the context of natural, routine preschool situations before and after intervention. The BASC-2 SOS is designed to evaluate a broad spectrum of behaviors, both adaptive and maladaptive, which include the following behavior categories: Response to Teacher/Lesson, Peer Interaction, Works on School Subjects, Transition Movement, Inappropriate Movement, Inattention, Inappropriate Vocalization, Somatization, Repetitive Motor Movements, Aggression, Self-Injurious Behavior, Inappropriate Sexual Behavior, and Bowel/Bladder Problems (See Appendix A for list of behaviors and definitions). The BASC-SOS evaluates the rates of positive and disruptive behaviors for students, and gives information on the frequency and disruptiveness of the behaviors. This is done through a momentary time sampling, in which the observer can rate behaviors during 3-second intervals spaced 30 seconds apart for 15 minutes. The system assesses both adaptive and maladaptive behaviors, from positive peer interaction to repetitive motor movements. Previous research shows substantial evidence for internal consistency, as well as construct, concurrent, and criterion-related reliability for the BASC-2 SOS (Kamphaus & Reynolds, 2004).
CHAPTER FOUR

Results

Prior to the implementation of Second Step, all three target participants referred were exhibiting excessive aggressive behaviors and inattention problems, as well as a lack of empathy and problem solving strategies. The results of this study indicated that overall, participant’s demonstrated gains in social skills knowledge and adaptive behaviors, as well as a reduction in behavior problems from pre- to post-test as measured by the participant interview, teacher ratings, and structural behavioral observations. Results provide some encouraging evidence for the positive effect of the Second Step curriculum on student behavior.

Teacher-Reported Behaviors (DECA-Teacher Rating Scale)

The DECA teacher rating scales were used to address the first research question, which hypothesized that following the Second Step intervention, the target participants would demonstrate an increase in prosocial behaviors (i.e., initiative, self-control, attachment) and a decrease in behavioral concerns. The DECA includes subscales and respective T-scores for initiative, self-control, attachment, and behavioral concerns. All results are reported in Table 2 and illustrated in Figure 1.

Table 2

<table>
<thead>
<tr>
<th>Change in Teacher-Reported Behavioral Problems (Measured by the DECA) at Pre-test and Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective Factors</td>
</tr>
</tbody>
</table>

35
<table>
<thead>
<tr>
<th></th>
<th>Initiative</th>
<th>Self-Control</th>
<th>Attachment</th>
<th>Behavioral Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Δ</td>
<td>Δ</td>
<td>Δ</td>
<td>Δ</td>
<td>Δ</td>
</tr>
<tr>
<td>P1</td>
<td>42</td>
<td>56</td>
<td>+14</td>
<td>30</td>
</tr>
<tr>
<td>P2</td>
<td>46</td>
<td>46</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>P3</td>
<td>55</td>
<td>56</td>
<td>+1</td>
<td>53</td>
</tr>
</tbody>
</table>

Note. DECA=Devereux Early Childhood Assessment; P1=Participant 1; Protective factors: T-score ranges from 28-40 indicates Area of Concern; T-score from 41-59 indicates Typical; T-score range from 60-72 indicates Strength; Behavioral Concerns: T-score range from 60-72 indicates Area of Concern; T-score range from 41-59 indicates Typical; T-score range from 28-40 indicates Strength.

Figure 1

*Change in Teacher Reported Behavioral Problems (Measured by the DECA) at Pre-test and Post-test*
*Note.* DECA=*Devereux Early Childhood Assessment;* Total Protective Factors Score is comprised of the initiative, self-control, and attachment subscales.

DECA pre and post data demonstrate an increase in t-score in the total protective factors subscales and a decrease in t-score of the behavioral concerns scale across almost all participants.

**Participant 1.** Participant 1’s rating at pre-test were in the “area of concern” range for the self-control (t-score = 30) and attachment (t-score =31) scales, the “typical” range for the initiative scale (t-score = 42), and the “area of concern” range for the behavioral concerns scale (t-score = 72). Post-test results showed an improvement across all areas, scoring in the “typical” range for initiative (t-score = 56), self-control (t-score = 55), attachment (t-score = 54), and behavioral concerns (t-score = 58). Participant 1 demonstrated the most dramatic gains among all three participants, with a t-score change of at least one standard deviation in the desired direction across all four subscales.
Participant 2. Results for Participant 2 at pre-test indicated the self-control (t-score = 36) and attachment (t-score = 40) scales were in the “area of concern” range, the initiative scale (t-score = 46) was in the “typical” range, and the behavioral concerns scale (t-score = 62) was in the “area of concern” range. Post-data indicated the self-control (t-score = 41) and attachment (t-score = 41) scales increased, indicating an increase in protective factors. However, there was no change in the initiative scale (t-score = 46). The behavior concerns scale (t-score = 58) did decrease, landing in the “typical” range, demonstrating a positive change in the problem behaviors.

Participant 3. At pre-test, according to the DECA, Participant 3 demonstrated behaviors in the “typical” range for all subscales (initiative, t-score = 55; self-control, t-score = 53; attachment, t-score = 58; behavioral concerns, t-score = 50). At post-test, Participant 3 increased in one-point in the area of initiative (t-score = 56) and two points in the area of self-control (t-score = 55), indicating a slight increase in these two areas of protective factors. However, there was a four-point decrease in the area of attachment (t-score = 54), indicating fewer positive attachment behaviors at post-test. There was no change in behavioral concerns (t-score = 50), indicating the same demonstrated behavior problems as reported by the teacher. All of Participant 3’s pre- and post-test scores remained in the “typical” range.

Summary of teacher-reported behaviors. Pre and post assessment comparisons demonstrated an overall improvement in teacher-reported prosocial skills and a reduction in problem behaviors. Additionally, pre-test data indicated that teachers rated their students lowest on the self-control scale compared to the other two protective factors, initiative and attachment scales. This demonstrates that the greatest area of need for
support in protective factors among these three participants was in the area of self-control. These results answer the first research question of this study, supporting that the Second Step curriculum contributes to a decrease in aggressive externalizing behaviors and an increase in prosocial behaviors.

**Structured Behavioral Observations** (*BASC-2 Student Observations System*)

Participants were observed in the classroom by a blind observer (i.e., blind to the purpose and hypotheses of the study) during structured and unstructured times (e.g., playground) at pre- and post-test using the *BASC-2 Student Observation System* (BASC-2 SOS). The BASC-2 SOS measures both adaptive (e.g., response to teacher, peer interaction) and maladaptive (e.g., inappropriate movement, inattention, aggression) behaviors. Figure 2-4 demonstrates results of the BASC-2 SOS for each student. Although the BASC-2 SOS includes 30 possible behaviors that can be observed, only the behaviors observed at one or both time points are included in the graphs.

*Behavioral Observation Data for Participant 1 (Measured by the BASC-2 SOS)*
Total possible instances = 30

Note. Total possible number of instances for behaviors observed = 30; only behaviors observed at either time point are included in the graph.

Figure 3
Behavioral Observation Data for Participant 2 (Measured by the BASC-2 SOS)

Figure 4

Note. Total possible number of instances for behaviors observed = 30; only behaviors observed at either time point are included in the graph.

Figure 4
Behavioral Observation Data for Participant 3 (Measured by the BASC-2 SOS)

Note. Total possible number of instances for behaviors observed = 30; only behaviors observed at either time point are included in the graph.

As demonstrated in Figure 2-4, results indicated that overall, students displayed more adaptive behaviors and fewer problem behaviors from pre- to post-test. Results showed a decrease in observed levels of inappropriate movements, inattention, inappropriate vocalization and aggression, as well as an increase in response to teacher/lesson, peer interaction, and working on school subjects, after participating in the
Second Step program. Of all behaviors, the most commonly observed was inappropriate movement and inattention, which was documented for all students at pre-test.

Participant 1. In observed adaptive behaviors, Participant 1 had an increase in response to teacher/lesson, peer interaction, and working on school subjects. However, adaptive transition movements decreased from pre- to post-test. It should be noted there may have been fewer opportunities to engage in transitions at the second observation, and more opportunities to work on school subjects, which can also explain the change in behavior. When examining overall adaptive behaviors, there appears to be a positive trend. Participant 1 also showed a positive change in the areas of inappropriate movement, inattention, and aggression; inappropriate vocalization was the one area of problem behaviors that did not improve from pre- to post-test.

Participant 2. Participant 2 showed improvements in the adaptive behaviors of peer interaction, working on school subjects, and transition movements. However, Participant 2 decreased in instances of responding to the teacher/lesson at post-test. Again, there may have been fewer opportunities or prompts to respond to the teacher at post-test. Overall, the observed change in adaptive behaviors showed a positive trend. Participant 2 decreased in two of the problem behaviors documented at pre-test (i.e., inattention, inappropriate vocalization) and increased in inappropriate movement.

Participant 3. Participant 3 had the highest number of documented behaviors at pre-test, compared to the other two participants. Participant 3’s results showed an increase in working on school subjects and responding to the teacher/lesson at post-test. There was no change in peer interaction, and a decrease in transition movement (which could have been accounted for by lack of opportunity to switch activities). Overall,
adaptive behaviors improved from pre- to post-test for Participant 3. Participant 3 also
decreased in the area of inappropriate movement, and remained constant in the area of
inattention.

**Summary of Behavioral Observations.** Overall, BASC-2 SOS data at pre- and
post-test showed an increase in prosocial skills and adaptive behaviors, and a decrease in
problem behaviors. Results helped answer the first research question of this study,
demonstrating support that student behavior problems decrease as a result of participating
in the Second Step intervention.

**Student Social-Emotional Knowledge (Second Step Knowledge Assessment Interview)**

The second research question addressed in this study asked whether participants
would gain knowledge on social-emotional skills after the Second Step intervention. The
Second Step Knowledge Assessment Interview was used to assess the knowledge and/or
skills a student had before and after the intervention. Increased interview scores from
pre- or post-test suggested that participants learned many of the concepts taught in the
program, demonstrating an increase in their conceptual knowledge of social skills.
Participants showed significant gains in the number of positive feelings they could
identify; the degree to which they could identify feelings and facial cues; describing how
to appropriately respond in social conflict situations; and in predicting the consequences
of their responses. Results are reported in Table 3 and illustrated in Figure 5.

Table 3

*Change in Student Social-Emotional Knowledge (Measured by the Second Step
Knowledge Assessment Interview) at Pre-test and Post-test*
### Pre-test vs Post-test Scores

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-test Score</th>
<th>Pre-test %</th>
<th>Post-test Score</th>
<th>Post-test %</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>9</td>
<td>45%</td>
<td>20</td>
<td>100%</td>
<td>+55%</td>
</tr>
<tr>
<td>Participant 2</td>
<td>11</td>
<td>55%</td>
<td>20</td>
<td>100%</td>
<td>+45%</td>
</tr>
<tr>
<td>Participant 3</td>
<td>12</td>
<td>60%</td>
<td>20</td>
<td>100%</td>
<td>+40%</td>
</tr>
</tbody>
</table>

**Note.** 0 = minimum score; 20 = maximum score

Figure 5

*Change in Student Social-Emotional Knowledge (Measured by the Second Step Knowledge Assessment Interview) at Pre-test and Post-test*
As demonstrated in Table 3 and Figure 5, all participants made progress from baseline to post-intervention. Participant 1 showed improvement from 9 points to 20 points. Participant 2 also showed gains, improving from 11 to 20 overall points. Finally, results for participant 3 made gains from a baseline score of 9 points to a post intervention score of 20. These results answered the second research question of this study, demonstrating support for the Second Step intervention in increasing social-emotional knowledge for students with behavioral concerns.
CHAPTER FIVE

Discussion

The purpose of the present study was to examine the effectiveness of implementing the Preschool/Kindergarten version of the Second Step: A Violence Prevention Program in increasing prosocial behaviors and decreasing problem behaviors in preschoolers who were referred for behavioral concerns. Second Step is a universal, school-based, prevention curriculum designed specifically to teach students prosocial behavior and decrease physical aggression and impulsive behavior (CfC, 2002). In order to determine the true success of the curriculum, three measures were used to measure change in behavior and social skills: teacher rating reports, student knowledge assessment interviews, and structured behavioral observations. It was expected that the participants would increase their usage of positive and prosocial behaviors, decrease externalizing behaviors, and increase social-emotional knowledge and skills.

Consistent with other studies that have demonstrated the efficacy of Second Step in decreasing physical aggression and increasing students’ social skills (Grossman et al., 1997), this study also provides evidence that Second Step can be an effective intervention in reducing behavioral problems. Results from all three data sources indicate that the participants in this study improved their social, emotional and behavioral skills, and reduced their externalizing behaviors such as aggression or disruptive behavior problems, following the Second Step intervention. Based on teacher rating scales, participants showed an increase in protective factors (i.e., initiative, self-control, and attachment) and a decrease in behavioral concerns. Direct behavioral observations also showed an increase in most adaptive behaviors and a decrease in most problem behaviors for all
three participants. An increase in scores on the participants’ knowledge interviews showed an improvement in the participants’ ability to identify feelings and facial cues, their capacity to think about how and why children might respond in conflict situations, and in their ability to predict the social consequences of their own responses (e.g., “How do you think he is feeling?” and “What are all the things he could do about the problem?”). Based on all three forms of data collection, the participants showed an increase in problem-solving ability and anger management strategies. Findings were consistent with previous research that has demonstrated that young children are capable of learning concepts around empathy, social problem solving, and impulse control skills (McMahon et al., 2000) and these results provide support for using Second Step as a means to teach these skills with preschool children.

Although the majority of the data demonstrated positive behavioral gains for all students, there were some exceptions. For example, at post-test, Participant 3 demonstrated small decrease in one area of teacher-reported protective factor behaviors (i.e., attachment) and there was no change in behavioral concerns, indicating the same demonstrated behavior problems as reported by the teacher. However, reductions in problem behavior on the direct behavioral observation, but no reduction on teacher ratings, are consistent with the findings of Grossman and colleagues (1997). Grossman et al. speculate the teachers may not notice small changes in students’ behaviors in the context of a whole class or may not notice aggressive behaviors that take place outside the classroom. They found that when teacher rating data, as well as observations were employed within the same study, they yielded dissimilar results. Results of this study indicate that although the teacher rating reveals no changes in Participant 3 at post-
intervention, observational data did show improvement in the participant's adaptive behaviors and some reduction in the participant’s problem behaviors. Additionally, the participants who showed the most improvement after intervention appeared to be those who displayed the most significant concerning behaviors at intake. Participant 3 exhibited the least amount of improvement on post-test data, as the student already displayed a number of adaptive behaviors and minimal behavioral concerns, as per pre-test observations and data collection.

The majority of the preschool teachers and paraprofessionals reported satisfaction with the Second Step curriculum implementation in their classrooms. They expressed that the content and activities were developmentally appropriate for their students, the program was appropriate to reduce problem behaviors and improve prosocial skills in students, and they expressed interest in continuing the program in the future. Teachers also reported that the program resulted in increased competence related to dealing with disruptive behaviors. Further, the improvement in attention, self-regulation and other similar skills observed in the participants, was reported to result in better attention and self-regulation during daily classroom activities such as circle time. Consequently, this allowed teachers more time for lesson planning and direct instruction, while reducing the time spent on classroom behavior management.

Overall, the results from this study demonstrate that implementing Second Step in a preschool setting can be an effective strategy for reducing problem behaviors in young children, thus leading to lower prevalence of expulsion or suspension in preschools. The three target participants within this study were not expelled from preschool, although teachers reported that they were at-risk of suspension and/or expulsion prior to the
Second Step implementation. The findings from this research study show evidence that an intervention approach combining evidence-based social emotional curriculum along with professional consultation (i.e., the researcher/Second Step instructor) in implementation results in benefits and improvement in children exhibiting significant behavioral issues at the preschool level.

**Implications for Future Research and Practice**

By considering the positive results of this study, in conjunction with the current body of research examining social-emotional and behavior problems and the effectiveness of Second Step, there are three notable implications for future research and practice. The first area of future research should be on the effects that Second Step has on the general education classroom through class-wide instruction. Second Step has been implemented with the general student population and students with problem behaviors. This study highlighted the effectiveness of implementing a class-wide intervention, which resulted in behavioral improvements in targeted participants. Additionally, anecdotal teacher information supported positive effects of the curriculum class-wide. In the same vein, future research should also be conducted on the importance of classroom teacher involvement in the teaching of class-wide social emotional curricula.

**Benefits of Teaching Second Step Class-wide**

Although only three students were targeted and monitored within this study, all children in the classrooms benefitted from the intervention. Researchers have identified that all students can benefit social-emotional interventions programs. The increasing numbers of children who are being identified with social-emotional needs, and the impact of those needs on student’s successful transition to kindergarten and elementary school,
also demonstrate the potential effectiveness and necessity for social-emotional programs in early education. It is likely that many young children will be increasingly exposed to violence as they develop, and previous research has demonstrated that aggressive behaviors, cognitions, and symptoms increase over time for at-risk youth. Skills, such as responding to others empathically, managing anger, and solving problems, may lead to prevention of violence. Social skills prepare young children for school and may even lead to attitudes and habits they will use in work settings.

Additionally, teaching *Second Step* class-wide should benefit teachers. Negative behaviors and emotions associated with externalizing problems can, understandably, cause adults to focus almost exclusively on these difficulties (Arnold et al., 2006). By teaching social skills to all students, behavioral problems should be reduced, resulting in a more positive classroom environment, which benefits both teachers and students. Future studies should be conducted to assess the effectiveness of the *Second Step* curriculum on all students.

**Importance of Classroom Teacher Involvement**

While the program appeared to be successful and teachers reported that they enjoyed it and felt it made a difference in their classroom, it was difficult to reinforce and generalize the strategies taught by on a daily basis, which may have resulted in more significant behavioral improvements. When teaching *Second Step* in the classroom, preschool teachers were encouraged to facilitate transfer of learning throughout the day by cueing students to use the skills taught when opportunities arise in order to reinforce the concepts of the program. During the observation and intervention period, the researcher/Second Step instructor offered teachers suggestions for effective strategies to
reduce problem behaviors and increase pro-social skills, and modeled these strategies to exemplify their effectiveness when implemented with fidelity. While modeling interventions was helpful for teachers, it may be optimal for the preschool teacher to implement the intervention in order to generalize and reinforce the skills. Studies have demonstrated that if lessons are reinforced and emphasized daily within the classroom, gains will be higher (Frey et al., 2000). Teachers generalized the use of intervention strategies throughout the school day, resulting in improved behaviors throughout the school routines. However, when asked after the program ended if they continued to implement strategies daily, teacher reported difficulty adhering to these expectations and indicated the desire for further training in behavioral management techniques.

Social learning theory supports why classroom teachers play an integral role in teaching social-emotional skills as part of the Second Step curriculum. According to social learning theory (Bandura, 1961), behaviors are learned through modeling and observation. Supporters of this theory believe that when students observe the behavior of others, they also observe the consequences of the model’s behaviors. Second Step emphasizes the importance of observation, self-reflection, performance, and reinforcement of acquisition and maintenance of behavioral repertoires (Joseph & Strain, 2003). In this study, peers were considered to be very effective models, especially for teaching social skills. The relative decrease in aggressive behavior found in this study in regard to the observation score of pre- to post-test may be due to the effects of positive modeling behavior by the teachers and/or peers whom the children encounter in their school environment.
One observation that should be noted is that Participant 3’s preschool teacher had the most difficulty with carrying over *Second Step* based concepts into the regular classroom curriculum. The researcher noticed resistance to the program and a lack of buy-in from this particular teacher. Although Participant 3 still made moderate gains, it is essential to acknowledge the importance of classroom teacher involvement in the success of the *Second Step* intervention.

In order for the *Second Step* curriculum to have a positive impact on the students, it is necessary for classroom teachers to carry-over topics learned from the curriculum in everyday situations within the school setting. Since general education teachers do not typically receive training in social-emotional curricula, there may be a need for more intensive professional development for preschool teachers, especially in implementing emotional literacy in the classroom and on topics related to behavior management.

**Family Education and Involvement**

Similar to the importance of teacher involvement, another factor that should be considered in future research and practice is to include family members more fully in the evaluation design and implementation. It is important for parents to be familiar with the social skills curriculum that their children are learning, so parents can assist in transferring the skills to the home environment and maintaining the skills over time. If parents are aware of the curriculum, they can help to educate students by modeling prosocial behavior and using the social-emotional vocabulary that is being taught in school. Giving parents this knowledge will allow for follow up at home and help further prevent aggressive behaviors from occurring. In addition, challenging behaviors typically do not occur in only one setting (Campbell, 1995). Researchers have stressed
the importance of behavioral support within home and school (Powell, Dunlap, & Fox, 2006), indicating a need for addressing social emotional competence in dual settings. This can lead to generalization and maintaining of prosocial skills across settings, and might lead to long-term skill maintenance. Future research should be conducted on the effectiveness of combining child social-emotional training with parent social-emotional training.

**Limitations of the Study**

While the findings of this study suggest notable gains in student social-emotional knowledge and reductions in problem behaviors, there are several limitations that should be addressed. First and foremost, this study did not have a control group. Therefore, there are limitations when discussing the effectiveness of the study, since it is unknown whether changes in data from pre- to post-test reflect the true impact of the intervention versus natural behavioral changes and knowledge gains that occur during the preschool years. It is possible that the positive gains from the pre- to post-test were a result of alternative influences, such as normal development and maturation of development of friendship with other participants. Other studies that utilized control groups found either no change or an increase in aggressive behavior in control groups over the course of an academic year (Grossman et al., 1997). Another limitation of this study was small sample size (i.e., three participants), which compromises the generalization of the observed results. In future studies, more participants should be examined and a control group should be used for comparison.

A third limitation was that implementing the *Second Step* program in this particular preschool was viewed as an “add on,” and the forced nature of implementing a
new curriculum was evident in some early skepticism in teachers. When extra responsibilities are added onto teacher’s current workload, such as implementing a social and emotional curriculum, this may translate into additional lesson preparation time and schedule burdens, any program that adds too much to teachers will likely fail. Preschool teachers are often over-worked, under-appreciated, under-trained, and under-paid. When incorporating social-emotional curricula into the regular classroom schedule, the biggest challenge is making programs active and intensive enough to succeed, yet practical enough to implement.

Additionally, the curriculum can be considered both time consuming and expensive. It may not be financially or practically feasible to implement Second Step in most schools. Training teachers and school staff requires learning new material, which takes time away from teaching and planning, and therefore, adds to new complications for teachers such as stress and time management. Even if the funds are available to support the training and implementation of Second Step, teachers are under increasing pressure to assume wider responsibilities, and these aspects of teachers’ experiences pose challenges to ongoing implementation of social-emotional programs such as Second Step.

A final limitation to the present study is the fact that implementing other social-emotional curricula for comparison purposes was not possible. Second Step was the only program used as it was available, the researcher was familiar with this program and had received prior training in it, and because this program was developed using diverse populations of students – similar to the participants used in this study.

Summary
The results of this study highlight the importance of implementing social-emotional curriculum as a means to prevent behaviors for at risk preschool young students. Based on findings of the study, combined with research demonstrating high prevalence rates of behavioral problems in young children (Campbell, 1995), it is increasingly important that social-emotional curricula be adopted by early intervention programs. *Second Step* provides schools with theory and research based interventions to increase pro-social behaviors, reduce aggressive behaviors, and improve school climate (CfC, 2002). Effectively dealing with social conflicts is important for students of all ages, and the negative effects of poor social skills can become greater and more serious as children get older. Implementing and maintaining social emotional programs such as *Second Step* will improve competence in empathy, social problem solving, and impulse control and significantly reduce aggressive behaviors.

Moreover, it would seem far more practical and efficacious for a curriculum such as *Second Step* to be offered by classroom teachers to all children in the classroom. With this approach, not only do high-need students receive daily help in responding appropriately to their peers, but at the same time, their classmates are taught to be more understanding and patient and less rejecting. If such social-emotional skill building programs are part of a general education classroom curriculum, all students can become more socially and emotionally competent.
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Table 1
Profile of Target Participants (N=3)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Race</th>
<th>Gender</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Hispanic</td>
<td>Female</td>
<td>4-5</td>
</tr>
<tr>
<td>P2</td>
<td>Hispanic</td>
<td>Male</td>
<td>4-7</td>
</tr>
<tr>
<td>P3</td>
<td>Hispanic</td>
<td>Male</td>
<td>4-10</td>
</tr>
</tbody>
</table>

*Note. P1=Participant 1; P2 = Participant 2; P3 = Participant 3*
Behavior Key and Checklist

1. **Response to Teacher/Lesson**
   - Listening to teachers/classmates or following directions
   - Interacting with teacher in class/group

2. **Peer Interaction**
   - Playing/working with other student(s)
   - Talking with other student(s)

3. **Work on School Subjects**
   - Doing class work
   - Circle Time

4. **Transition Movement**
   - Moving around the room
   - Preparing Materials for beginning/end of lesson

5. **Inappropriate Movement**
   - Walking/running around classroom
   - Using work materials inappropriately
   - Clinging to teacher

6. **Inattention**
   - Looking around
   - Staring blankly/daydreaming
   - Making disruptive noises

7. **Inappropriate Vocalization**
   - Laughing appropriately
   - Talking out
   - Arguing/talking back to teacher

8. **Somatization**
   - Complaining of not feeling well

9. **Repetitive Motor Movements**
   - Spinning an object
   - Talking/humming/singing to self

10. **Aggression**
    - Kicking others
    - Hitting others with hand
    - Throwing object(s) at others
    - Destroying property
    - Pushing others

11. **Self-Injurious Behavior**
    - Pulling own hair
    - Hitting self
    - Biting self
    - Eating or chewing nonfood items

12. **Inappropriate Sexual Behavior**
    - Touching others inappropriately

13. **Bowel/Bladder Problem**