

EFFECTS OF GRADE LEVEL AND TARGET STATUS ON THE ACQUISITION OF  
KNOWLEDGE OF PROBLEM-SOLVING STRATEGIES IN A UNIVERSAL  
COGNITIVE-BEHAVIORAL INTERVENTION

By

LEAH SHELIDE

A THESIS PRESENTED TO THE GRADUATE SCHOOL  
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ARTS IN EDUCATION

UNIVERSITY OF FLORIDA

2003

Copyright 2003

by

Leah Shelide

## ACKNOWLEDGMENTS

I would like to thank Dr. Nancy Waldron for her guidance and support throughout the completion of this project and throughout my graduate studies. I also extend sincere thanks to Dr. David Miller for granting me the opportunity to work with him and for his assistance on this project. Also, I would like to thank Dr. Ann Daunic for her flexibility, her tolerance, and her frequent reminders that I was making a valuable contribution.

I am grateful to all of the teachers and support personnel in the Bradford County Public School District who supported and assisted me with this project.

I also would like to thank my mother, Judy Moruzzi, for her wisdom, her friendship, and her quiet insistence that success was the only option. I also offer my sincere appreciation to Richard Moruzzi for his support and encouragement throughout my adult life.

I would especially like to thank the three people I admire the most, my children, Erin, Emily Ann and Abby. They continue to amaze and inspire me. I am grateful to them for teaching me so much about life, for their unwavering love and belief in me throughout the years, and for the reflection I see in their eyes.

## TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS.....	iii
LIST OF TABLES .....	vi
CHAPTER	
1 INTRODUCTION .....	1
2 REVIEW OF LITERATURE .....	5
School Violence.....	6
Aggressive Behavior and Achievement.....	7
Prevention .....	9
Review of Social Skills Programs.....	11
Theoretical Foundations to Social Skills Programs.....	17
Tools for Getting Along.....	20
Problem Statement.....	21
3 METHOD.....	23
Participants.....	23
Program Description .....	24
Teacher Training .....	25
Instruments.....	25
Procedure .....	26
4 RESULTS .....	27
Descriptive Statistics.....	27
Analysis of Variance.....	28
5 DISCUSSION .....	29
Limitations of the Study.....	31
Directions for Future Research .....	32

## APPENDIX

A	PARENT CONSENT FORM .....	35
B	STUDENT NOMINATION FORM .....	36
C	PROBLEM SOLVING QUESTIONNAIRE .....	37
	LIST OF REFERENCES .....	43
	BIOGRAPHICAL SKETCH.....	49

LIST OF TABLES

<u>Table</u>	<u>page</u>
4-1 Means and standard deviations by grade.....	27
4-2 Means and standard deviations by target/nontarget status .....	28

Abstract of Thesis Presented to the Graduate School  
of the University of Florida in Partial Fulfillment of the  
Requirements for the Degree of Master of Arts in Education

EFFECTS OF GRADE LEVEL AND TARGET STATUS ON THE ACQUISITION OF  
KNOWLEDGE OF PROBLEM-SOLVING STRATEGIES IN A UNIVERSAL  
COGNITIVE-BEHAVIORAL INTERVENTION

By

Leah Shelide

August 2003

Chair: Nancy Waldron  
Major Department: Educational Psychology

The current study investigated the effects of grade level and target status on the acquisition of knowledge of problem-solving strategies in a universal cognitive-behavioral intervention. Twenty-six students in grades three and four received the 15-lesson social skills curriculum Tools for Getting Along. Of the 26 students participating in the study, 15 were targeted by their teachers as exhibiting or being at risk for the development of aggressive and/or disruptive behavior.

The Problem-solving Questionnaire (PSQ), consisting of multiple-choice items taken directly from the curriculum, was used to assess how well students learned curriculum content. All students completed the PSQ prior to the implementation of the curriculum and within one week after the entire curriculum had been completed.

Consistent with previous research, all participants made gains in knowledge of problem-solving strategies from pre- to post-test measures. Using ANCOVA, no significant difference was found by grade level or by target/nontarget status.

Results of this study support the use of social skills training programs as primary prevention in the early grades. The escalation of school violence, the link between aggressive behavior and school achievement, and implications for future research are discussed.

## CHAPTER 1 INTRODUCTION

In recent years, teachers have reported a dramatic increase in a variety of aggressive and disruptive behaviors among students at the elementary school level. Problems in peer and other interpersonal relationships in elementary school have been shown to predict long-term maladjustment, including juvenile delinquency, school drop out, and criminal behavior in adulthood (Lochman, Dunn & Klimes-Dougan, 1993). Instructing students in problem-solving and pro-social skills in an attempt to reduce these problematic behaviors may play a significant role in assisting them to become accepted and respected members of society, both in school and in the community at large.

The Individuals with Disabilities Act of 1995 (IDEA) clearly established the goal of educating children with disabilities, including children with behavioral disorders, in the general education classroom. As such, general-education teachers are requesting programs through which they can address and attempt to remediate disruptive and aggressive behaviors in all students. The findings of a survey using the Social Skills Rating System highlights the importance teachers place on a student's ability to regulate anger and exhibit appropriate social skills in the classroom (Gresham & Elliot, 1984). In this survey, a nationally representative sample of general education teachers rated the item "controls temper in conflict situations" as one of the top ten most important social skills for classroom success. Further, increasing numbers of general education teachers are requesting the assistance of school psychologists to provide guided instruction in social problem-solving and the development of social skills (Possell & Abrams, 1993).

Many would agree with Elliott, Racine, & Bruces' (1995) assertion that one of the critically important goals of childhood is the development of socially successful relationships. Elliott et al. (1995) encourage school psychologists to address the treatment of social skills in their daily practices. In fact, it has been suggested (Goldstein, 1999) that school psychologists should not only be involved, but should be major decision makers in terms of selection and implementation of social skills programs. Whether the role of the school psychologist is direct provision of problem-solving curricula in the classroom or the training of teachers and other support personnel in the implementation of such programs, the opportunity for supportive and cooperative relationships between teachers and school psychologists increases with the inclusion of social skills programs.

Primary prevention programs aimed at reducing aggressive and disruptive behaviors promote healthy development, impact the largest number of children, and may reduce the need for diagnostic, curative or corrective/remedial services in the future (Simeonsson, 1994). Further, because universal programs (directed toward all children in the school population/classroom) also target selected students (children who are at some risk for developing the problem), the institution of universal cognitive-behavioral problem-solving curricula is one increasingly popular method of facilitating the development of better problem-solving strategies in the school setting. Positive results from successful interventions directed toward aggressive and disruptive behaviors can improve current behavior, thereby increasing the rate of on-task behavior for the entire class; and also can improve future adjustment for those children identified as demonstrating the most problematic aggressive behaviors (Lochman et al. 1993).

Regardless of the methods used in teaching problem-solving strategies, virtually all programs in social-skills training (Possell & Abrams, 1993) incorporate the following problem-solving steps:

- Identify the problem
- Generate alternative solutions
- Anticipate the consequences of those solutions

In recent years several primary and secondary prevention programs designed to reduce aggressive and disruptive behaviors have been developed and implemented in school settings. For example, The Art of Self Control and Think First: Anger and Aggression Management for Secondary-Level Students are secondary prevention programs that consist of 10 to 12 anger-management training sessions; are based on the cognitive-behavioral problem-solving model (Lochman, Dunn & Wagner, 1997); and are frequently implemented only with the most problematic students on a pull-out basis. Although each program has its own individual and unique components, both programs include training in the basic problem-solving steps. However, these and many other such programs were designed primarily for use with middle and high-school students.

Although two programs, Second Step: A Violence Prevention Curriculum and Promoting Alternative Thinking Strategies (PATHS) include curricula for students as young as pre-school age, in general, programs for children younger than 4th grade are underrepresented (Lochman et al., 1997). This underrepresentation may be due to long-held beliefs about the inability of younger children to use formal operational reasoning, despite research indicating that children as young as seven years of age have been shown to utilize such reasoning under appropriate testing conditions (Danner & Day, 1977; Slater & Kingston, 1981). In fact, many researchers now believe that the age at which

children can be trained to solve formal operational problems has been greatly overestimated (Bjorkland, 2000).

Currently, most social-skills intervention programs in schools are designed for initial implementation in fourth through sixth grades. Many such programs are implemented on a pull-out basis with only the most aggressive or disruptive students. The purpose of this study was to examine the effects of grade level and target status on the acquisition of knowledge of the basic problem-solving components of a cognitive-behavioral curriculum designed to reduce aggressive and disruptive behaviors. This research will extend our understanding of the ability of younger students and targeted aggressive students to benefit from cognitive-behavioral social skills interventions.

Specific research questions were

- When a cognitive-behavioral intervention is implemented in mixed third and fourth grade classrooms, are there significant differences in the acquisition of knowledge of problem-solving strategies between third and fourth grade students?
- When a cognitive-behavioral intervention is implemented universally in general education classrooms, are there significant differences in the acquisition of knowledge of problem-solving strategies between target and nontarget students?

## CHAPTER 2 REVIEW OF LITERATURE

The majority of social skills intervention programs in schools are designated for initial implementation in fourth through sixth grades. Consequently, social skills training programs intended for students in kindergarten through third grades are drastically underrepresented (Lochman et al., 1997; Taub, 2002). This delay in providing intervention programs is of significant concern given that aggressive and disruptive behaviors among students at the elementary level predict long-term maladjustment (Lochman et al., 1993). Insuring that the youngest students acquire knowledge of problem-solving strategies, if only the most rudimentary vocabulary in problem-solving and pro-social skills, can be a positive first step toward preparing them for advanced training in the later grades and thus improving long-term outcomes for all children.

Further, many social-skills training programs are typically implemented on a pull-out basis targeting the most aggressive or disruptive students. However, not only has Congress clearly established the goal of educating all children in the least restrictive environment (IDEA-1997), but at least one study reveals that the practice of grouping deviant and aggressive youth for skills training can actually produce harmful effects (Arnold & Hughes, 1999). Because universal programs (directed at all children in the school population/classroom) also target selected students (children who are at some risk for developing the problem), the institution of universal cognitive-behavioral problem-solving curricula is one increasingly popular method through which the needs of at-risk students can be met, while simultaneously fulfilling the basic tenets of IDEA.

This chapter begins with a discussion of the escalation of school violence and highlights the need for student training in problem-solving in our schools. This is followed by a description of the link between aggressive behavior and achievement and a description of primary prevention and its role in reducing aggressive and disruptive behaviors. Next, a review of current social skills training programs, their theoretical underpinnings, and research findings are included along with a review of the intervention used in the current study, Tools for Getting Along.

### **School Violence**

Although slight decreases in the incidence of school violence have been observed over the past ten years (U.S. Department of Education, 1999), dramatic increases of youth violence in general over the previous thirty years bring concerns about safe schools and violence prevention programs to the forefront (Reiss & Roth, 1993).

Traditionally, school violence has been defined by activities involving homicide, assault, theft, vandalism, and other such crimes. Recently, however, experts believe that it may be more appropriate to define school violence more broadly to include verbal as well as physical aggression, bullying, and other acts that may lead students to feel intimidated or fearful of their fellow students (Shapiro, 2000; Batsche, 2000). Support for this belief comes in many forms, not the least of which includes reviews of statistics and national figures citing startling facts and figures regarding the prevalence of violence in schools today. For example, one recent survey indicates that more than one in three students (39% of middle schoolers and 36% of high schoolers) say they don't feel safe at school (Byrnes, 2000). This is not surprising considering that the same survey indicated 43% of high school and 37% of middle school boys believe it is "OK" to hit or threaten a person who makes them angry and that 75% of all boys and 60% of all girls in the survey

reported having hit someone in the past 12 months because they were angry.

Preoccupation with threats of violence and safety concerns may be taking a severe toll on the ability of students to focus on the goals of schooling and learning.

Research indicates that aggression in school is most often directed at peers and that most aggressive behaviors are displayed by boys toward other boys, although incidents of female aggression are certainly not negligible (Laub & Lauritsen, 1998).

Aggression in schools is important not only because of the immediate harm and disruption it causes, but also because of the longer-term consequences (both in and out of school) that can result from such aggression. Indeed, students who are identified as violent or aggressive in the early elementary school years are at selected risk for a host of serious behavioral difficulties including anti-social acts, delinquency, violent offenses in the community, school failure, school drop-out and incarceration (Laub & Lauritsen, 1998; Lochman, et al., 1997; Morrison, Furlong, & Morrison, 1994). Because juvenile aggression tends to be stable over time, early interventions designed to address both the individual characteristics of such aggressive children and the social contingencies that affect their aggressive responses may be most effective in reducing these problematic outcomes if they can be implemented before aggression becomes stable (Laub & Lauritsen, 1998).

### **Aggressive Behavior and Achievement**

Although creating peaceful and safe school environments through the reduction or elimination of aggressive behaviors in school children may be a worthy endeavor in it's own right, the link between violent and aggressive behaviors and achievement may be an even greater incentive to actively address this growing problem. Some may fear that time spent addressing pro-social behavioral issues in the classroom may reduce time available

for academic tasks, but research over the past 25 years consistently indicates that there is an increasingly strong relationship between positive social behavior and academic achievement (Lambert & Nicholl, 1977; Green, Forehand, Beck, & Vosk, 1980; Feshbach & Feshbach, 1987; Wentzel, 1993; DiPerna & Elliott, 1999; Malecki & Elliott, 2002).

Malecki & Elliott (2002) assert that the idea of a causal relationship between pro-social behaviors and academic achievement in the classroom is not something new, but rather an idea espoused by two noted theorists of human behavior and learning, Vygotsky and Bandura. Both theorists emphasized the influence of social behavior on cognitive functioning. Vygotsky (1978) argued that positive social functioning with peers is not only desirable, but necessary in the development of new ideas and skills and that students working cooperatively gain more skills than when working alone (Slavin, 1995). Bandura suggested that learning is a social process and that the social context affects the learning of new skills as the child interacts, listens, and observes the behavior of those around him (Malecki & Elliott, 2002) .

One of the strongest and most convincing indicators of a positive relationship between pro-social behaviors and achievement in recent years was highlighted in Wentzel's (1993) literature review of the relationship between pro-social behaviors and achievement. Wentzel found that pro-social behaviors in school children (e.g. following the rules and conforming to social expectations) can actually "enable academic achievement" through the creation of a social context for learning goals. Malecki and Elliott (2002) validate Wentzel's findings in their study of social behaviors as predictors of academic achievement among third and fourth grade students. Results from this study

indicate that social skills positively predict current and future academic achievement and that problem behaviors are negatively predictive of academic achievement. Therefore, if, as many believe, the purpose of our schools is to promote learning and achievement, it may be incumbent upon schools to concurrently teach pro-social skills along with academics in an effort to foster that goal.

### **Prevention**

The question then arises, "How should we go about promoting pro-social behaviors in primary and secondary school children and toward which children should our efforts be directed?"

Primary prevention is the term used to describe prevention efforts that are implemented before the target condition manifests itself in order to prevent new cases of the target condition. Because the prevention of maladaptive behaviors can also be described as the promotion of well being, primary prevention can also be defined as the promotion of health, development, and adaptation through the reduction of risk factors and/or the promotion of protective factors (Albee & Ryan-Finn, 1993; Sameroff & Fiese, 1990; Simeonsson, 1996).

A second type of prevention effort popular in schools today is termed secondary prevention. Secondary prevention efforts typically are directed at problem conditions that have already been identified but have not yet caused disability. Secondary prevention is favored by many because it is often possible to identify and target populations exhibiting a particular problem, and prevention efforts can be more focused. However, secondary prevention efforts frequently tend to look more like treatment than prevention (Sameroff & Fiese, 1990). For example, teaching problem-solving strategies to adolescents who have already displayed significant evidence of poor social skills

through aggressive, disruptive, or non-compliant behavior is more of a band-aid approach than a prevention approach.

The third form of intervention common in schools today is called tertiary prevention (Sameroff & Fiese, 1990). Tertiary efforts are directed toward problems that have already manifested themselves and resulted in negative outcomes such as teen pregnancy and school dropout. Tertiary prevention efforts can help minimize the negative consequences of an existing problem and mitigate damage to the community at large. Efforts are often aimed at rehabilitation and/or education, which can serve the good of not only the individual, but of society as a whole.

The mistaken beliefs that there are single causes for disorders and that those causes can be wiped out by treating individuals has led to a major focus on secondary and tertiary prevention efforts. However, research appears to contradict these two beliefs and suggests that because there can be multiple causes for disorders and because causes for psychological and/or social problems are not as easily isolated and identified as the causes of biological disease, it may be prudent to focus efforts on prevention rather than treatment (Sameroff & Friese, 1990). Even if tertiary treatment were an affordable option, which as demand increases is not likely to be the case, it is often not a good solution because it does not prevent problems from occurring in the first place (Simeonsson, 1996). Indeed, disease has never been eliminated or controlled through treatment but has been controlled primarily through prevention: e.g. widespread immunization (Braden & Hightower, 1998). If this alone is not justification for a more intensive focus on prevention rather than treatment, consideration should be given to the fact that the demand for mental health services today is high and constantly rising, which

may eventually make it impossible to meet. One solution, therefore, is to decrease the need for mental health services through prevention programs. In many cases, primary prevention would appear to be the most ideal form of prevention that can be offered to children and youth in our schools. Because its primary focus is to reduce new cases of the problem, it is the model that will address the largest number of children whether they in fact "need" it or not. Using a public health example, smallpox has been eliminated because *all* children were immunized whether or not they were at risk for exposure to the disease.

Approaches to overcoming the barriers to primary prevention efforts and funding are varied. Political activism can be an effective tool (Dadds, 2001) as can the development of social marketing techniques (Chamberlin, 1996), which can be described as learning to get the message out to the right people, in the right way, at the right time about the positive effects of prevention programs. Education of communities regarding their current short term outlooks and increasing the focus on the societal benefits of prevention in terms of improved safety, reduced numbers of teenage pregnancies, lower school drop-out rates, reduced rates of juvenile delinquency and less welfare dependency as a mechanism to improve society as a whole may be needed to pave the way for future prevention efforts.

### **Review of Social Skills Programs**

In recent years, several primary and secondary prevention programs designed to reduce aggressive and disruptive behaviors have been developed and implemented in school settings. Whether students are experiencing acquisition deficits or performance deficits in the use of pro-social behaviors, these programs offer one vehicle through which these deficits can be remediated and social competence can be acquired or

enhanced (Gresham, Sugai, & Horner, 2001). Although modes of delivery vary slightly, most programs include components that focus on social problem-solving, impulse control, perspective taking, empathy, verbal mediation, and modeling (Lockman et al., 1993; Lockman, et al., 1997; Merrell, 2002; Taub, 2002). To facilitate the acquisition and application of these skills, techniques such as brainstorming, role-play, rehearsal, and goal setting are used. Two such programs, Promoting Alternative Thinking Strategies (PATHS) and Second Step: A Violence Prevention Curriculum, both of which include units designed for early elementary level students, are highlighted here.

PATHS is an intervention program designed to develop emotional competence in children. The program was originally developed in the 1980s for use with deaf and hearing-impaired children, but has since been implemented successfully in general education classrooms. PATHS is a universal, classwide intervention implemented by classroom teachers for students in kindergarten through fifth grade and includes a series of 131 lessons (Greenberg, Kusche, & Mihalic, 1988; American Federation of Teachers, 1994). The four main focus areas of the curriculum are teaching students to stop and calm down, providing linguistic cues to enhance understanding of self and others, increasing problem-solving skills, and fostering self esteem and positive peer relations (Lochman et al., 1993).

The PATHS program is organized into three main units (readiness and self control, feelings and relationships, and interpersonal cognitive problem-solving) which address five increasingly complex areas of conceptual concern: self control, emotional understanding, positive self-esteem, relationships, and interpersonal problem-solving skills.

The Second Step program, developed by The Committee for Children in Seattle, Washington, is designed to prevent aggressive behaviors by increasing pro-social behavior. The three essential competencies covered by the curriculum include empathy, impulse control/problem-solving, and anger management. Through the class-wide implementation of the intervention, students learn how to resist impulsive behavior, resolve conflict, problem solve, and think through the consequences of their actions (Committee for Children, 2002; Taub, 2002). The identification of feelings experienced by self and others play a large part in the program.

The Second Step program includes units geared toward pre-school, elementary level, and middle school students. Like the PATHS program, lessons are generally taught two times per week in 30-minute sessions. Both the PATHS and Second Step programs attempt to improve social skills through direct instruction of social problem-solving strategies. Modes of instruction include modeling, rehearsal, role plays, and the use of verbal mediation, all of which have proven effective in the teaching of perspective taking skills (Feshbach, 1989), impulse control (Spivack & Shure, 1982), and anger management (Novaca, 1975).

Because both the PATHS and Second Step programs provide units for several levels of instruction, lessons are tailored to fit the developmental level of students. For example, the first few lessons of PATHS (designed for use in the pre-school setting), include stories about a young turtle facing interpersonal problems because he doesn't stop and think (Greenberg, Kusche, & Mihalic, 1988; American Federation of Teachers, 1994). Similarly, program components of the elementary level of Second Step provide live-action videos of same-age students expressing emotions in real-life situations

(Committee for Children, 2002). In both programs, the social skills targeted in any given lesson and the types of problems addressed are built upon previous lessons learned.

Although the effectiveness of the PATHS and Second Step programs has not been extensively researched, evaluations that are available offer encouraging results, supporting the use of such programs at the elementary and pre-school levels.

Developers of the PATHS program report promising results at the elementary level in several clinical trials comparing students who received the program to matched controls (Greenberg, et al., 1988). Researchers demonstrated that the PATHS intervention significantly increased students' conceptual knowledge and ability to recognize and understand emotions and social problems, generate effective solutions, and decreased the percentage of aggressive or violent solutions. One study examining the effects on 200 general education students after one full year of the intervention indicated that students receiving the PATHS curriculum made significant improvement on measures of social problem-solving and emotional understanding compared to controls, and were significantly less likely to use aggressive solutions and more likely to use pro-social solutions in addressing conflicts and problems. At a one-year follow-up, significant effects for emotional understanding and problem-solving were sustained (Greenberg & Kusche, 1996).

Consistent with the results listed above, findings of an independent study implementing an adapted version of the PATHS curriculum in a pre-school setting with at-risk four-year-olds also has demonstrated positive results. In this study, PATHS intervention children showed decreases in negative emotion, along with greater involvement and more initiative in positive peer activity compared to controls. Further,

intervention children were described through teacher report as improving socially (Denham & Burton, 1996).

Results of independent evaluations of the Second Step program indicate that second and third grade students receiving the curriculum became less physically aggressive and increased their positive social interactions while the aggressive behavior of students at control schools actually rose. Researchers interpret this finding to reflect the likelihood that the intervention may have served a role in the prevention of increased aggressive behavior at the intervention school. However, parent and teacher reports of these same behaviors, did not differ significantly from control schools (Grossman, et al., 1997). Additionally, pre-school and kindergarten students demonstrated increased conceptual knowledge of social skills and decreases in observed levels of verbal aggression and disruptive behavior, even though teacher ratings did not differ across time (McMahon, 2000).

Researchers suggest that the reason why parent rating scales did not reflect less aggressive behavior may have been due to the differences of behavior exhibited by children in the home as opposed to the school setting. They suggest that results may have been different if other family members had also received the intervention. When considering why teacher ratings did not improve, researchers hypothesized that rating scales lack sensitivity to behavioral change over a limited period of time. It was also noted that although teachers typically observe students in the classroom setting, observers from their studies were able to gather data in multiple settings (e.g. playground, cafeteria) where social interaction is more likely to take place (Grossman et al., 1997). They further theorize that the teachers may have expected more changes in behavior than they

observed or that the behavioral changes noted through direct observation may have been temporary in nature. They note the limited amount of time researchers were able to engage in direct observation of the children receiving the intervention and suggest that increased observation times may have resulted in findings more consistent with teacher rating scale observations (McMahon, 2000).

All aforementioned evaluations of the Second Step program were conducted when the intervention was implemented with children from low-income, urban families. However, Taub's (2002) evaluation of the program implemented in a rural setting, suggests results just as promising. This study included students in third, fourth and fifth grades at the intervention school, as well as students in the same grades at a comparison school not receiving the intervention. Data collection took place at three points over the course of the study: prior to the implementation of the intervention, at the conclusion of the implementation of the intervention, and one year following the initial implementation of the intervention. Measures included a teacher rating scale and direct behavioral observations. Findings indicated significant improvements in teacher ratings of social competence and antisocial behaviors as well as improvements in pro-social behaviors (e.g. engaging appropriately with peers), as measured by independent behavioral observations. Behavioral observations of anti-social behaviors, however, did not show the same improvement. Researchers hypothesize that these findings may be reflective of students' acquiring new skills while continuing to practice old behaviors and/or to the limited post-intervention observation period (15 minutes per child).

Overall, evaluations of both the PATHS and Second Step programs implemented with children in pre-school through fifth grade using measures of social problem-solving

ability as well as direct behavioral observation have consistently demonstrated significant improvements related to conceptual knowledge of the problem-solving process and the generation of effective solutions to everyday problems. Less consistent results have been demonstrated when teacher perceptions were measured. These mixed findings could be related to a host of factors including teacher bias, a lack of sensitivity on the part of the instruments used, or any number of intervening variables. However, the most promising findings are those related to the interventions' ability to sustain problem-solving skills over time. The fact that students retain the information they learn through these programs for at least one year following the intervention is good reason to move forward with the universal implementation of such programs at the earliest grade levels.

### **Theoretical Foundations to Social Skills Programs**

Contemporary intervention procedures designed to reduce aggressive and disruptive behaviors typically focus on teaching the internal regulation of behavior through training in problem-solving strategies (Goldstein, 1999; Gresham, 1990; Lochman, et al., 1993; Shapiro, 2000; Taub, 2002). An obvious and concurrent goal of such programs is to facilitate pro-social behavior. The advantage of such programs as primary prevention in schools, is their ability to reach not only all children in general education classrooms, but to also reach those children who, whether identified to be at risk or not, may be at significant risk for anger control problems. The research cited above clearly indicates that cognitive-behavioral interventions have, for the most part, demonstrated their success in reaching these goals.

Cognitive-behavioral intervention (CBI) can be characterized as an intervention technique based on the incorporation of the basic principles and effects of behavior therapies (e.g. reinforcement, modeling, and feedback) with the mental components of

cognitive therapies (e.g. self-talk, think-alouds, and the examination of cognitions) for the purpose of producing modifications in perceptions, thinking, feeling, and behavior (Kendall, 1993; Kendall, Ronan, & Epps, 1991; Manning, 1988).

The roots of CBI can be found in the theoretical foundations provided by prominent behavioral theorists such as Watson (1924) and Skinner (1953) and the cognitive theories of Vygotsky (1962), and Luria (1961). The combination of these theories in therapeutic applications represented a new wave of research by cognitive therapists such as Ellis (1962) and Beck (1970), who were among the first to demonstrate that verbal behavior can alter nonverbal behavior and that cognitions (e.g. expectations, attributions, appraisals, etc.) can affect and mediate behavior. Concurrently, other researchers focused on verbal self-regulation or "self-talk" (Meichenbaum, 1977) as a means to regulate behavior and compared the effects of self-instructional training to decrease impulsive behaviors (Meichenbaum & Goodman, 1971).

More recently, the link between feelings and their verbal labels has been investigated (Cicchetti, Toth, & Bush, 1988; Greenberg, DeKlyen & Speltz, 1989). This research suggests that the ability to consciously recognize and label emotion is a critical component in the development of social competence. Many young children may enter school not having been exposed to language to express their feelings. Without such a vocabulary to express their own emotions, children may be unable to understand the feelings of other children or the effect of their actions (such as aggressive behavior) upon others (Cicchetti, et al, 1988; Greenberg, et al., 1989). Therefore, development of basic vocabulary in this area may be indicated as a crucial first step toward social competence.

Other recent research has focused on the next step toward social competence, cognitive problem-solving. This component focuses on improving students' ability to think through interpersonal conflicts, develop the habit of generating multiple solutions, and following step-by-step procedures to reach goals (Spivack & Shure, 1982; Weissberg, 1985). Students who have learned basic vocabularies and strategies and yet do not apply effective problem-solving behaviors can be characterized as having a performance deficit rather than a skill deficit (Gresham et al., 2001). One way of conceptualizing such skill or performance deficits is Dodge's (1986) social exchange model. Dodge's model is based on a child's processing of social cues in five sequential steps including the encoding of social cues, mental representation of the encoded cues, assessment or generation of potential behavioral responses, evaluation and selection of a response, and enactment of that response. Angry and aggressive children frequently appear to have deficits at all 5 stages of this model (Dodge, et al.1986; Lochman, et al., 1997).

Dodge, et al. (1986) further proposed that aggressive children display the following five deficit characteristics

- Increased rates of attending to hostile cues
- Perception of others as having hostile intentions
- Demonstration of strategies for dealing with problem situations that are less competent and are more action-oriented than verbally-oriented
- Anticipation that aggressive solutions will have more positive and less negative outcomes
- Demonstration of a lack of social skill in enacting a selected strategy

Consistent with this model, the training and application of cognitive-behavioral principles inherent in many cognitive-behavioral social skills training programs address

and attempt to restructure how a child perceives and consequently reacts to difficult or problematic social situations, thereby remediating difficulties at each of the five steps.

### **Tools for Getting Along**

The Tools for Getting Along curriculum is a 15-lesson anger management curriculum designed to reduce aggressive and disruptive behaviors and promote pro-social behaviors in fourth and fifth grade students (Smith, Miller, & Daunic, 2002). Problem-solving skills are learned through the direct instruction of a 6-step problem-solving model. Lessons center around themes including the recognition of anger in oneself and others, how anger and frustration can create or exacerbate problems, training in the de-escalation of frustration or anger by engaging student cognitions, defining problems and generating solutions, selecting strategies to solve problems and the evaluation of outcomes (Smith et al., 2002).

Like the PATHS and Second Step programs, The Tools for Getting Along curriculum, makes use of teacher modeling, role-plays, and skill rehearsal. The curriculum also includes components using paired and cooperative learning groups as well as frequent review of problem-solving concepts and steps. Additionally, a point system to reward student participation and increase generalization is utilized. The curriculum also includes the use of a "Hassle Log" designed to allow students to independently apply problem-solving steps and concepts to their own real-life problems and share results with teachers and peers (Smith, et al., 2002).

After initial implementation of the Tools for Getting Along Curriculum, the program was evaluated over three dimensions: knowledge of curriculum components, behavior (as measured by teacher rating scales) and attitudes (as measured by teacher completed anger scales). Preliminary findings indicated all students, those targeted to be

at risk and typical students, significantly increased their knowledge of problem-solving strategies (Smith et al., 2002). Follow up measures indicated this knowledge was maintained for at least five months. Additionally, teachers rated target students receiving the intervention as significantly less aggressive than target students in the control group and anger control scores for target students receiving the curriculum improved at a marginally significant level (Daunic, Smith, Miller, Cresap, & Shelide, 2001).

### **Problem Statement**

Violence and aggressive behaviors in schools are important issues that must be addressed not only because of the immediate harm and disruption they cause, but also because of the longer-term consequences that can result from such aggression. Students who are identified as violent or aggressive in early elementary school frequently lack basic social skills and are at selected risk for many serious behavioral difficulties including delinquency, school failure, and dropout. Further, research over the past 25 years has consistently shown a strong relationship between positive social behavior and academic achievement. In an effort to promote academic achievement and prevent aggressive and disruptive behaviors, several cognitive-behavioral intervention programs, such as PATHS, Second Step, and Tools for Getting Along, have been developed.

Although the above mentioned interventions have been successfully implemented with students in pre-school through fifth grade and have shown consistent results in elevating students' problem-solving ability and pro-social behavior as well as maintaining these abilities and behaviors over time, most social skills programs are still designated for initial implementation in fourth through sixth grades. Further, they are often implemented on a pull-out basis targeting only the most aggressive or disruptive students.

The purpose of the current study was to examine the effects of grade level and student target status (designated by teacher nomination) on the acquisition of knowledge regarding the basic problem-solving components of a cognitive-behavioral curriculum designed to reduce aggressive and disruptive behaviors. Specific research questions were:

When the curriculum is implemented in mixed third and fourth grade classrooms, are there significant differences in knowledge acquisition between third and fourth grade students?

When the curriculum is implemented universally in general education classrooms, are there significant differences in knowledge acquisition between target and nontarget students?

It is hoped that this research will extend our understanding of the ability of younger students and targeted aggressive students to benefit from cognitive-behavioral social skills interventions.

## CHAPTER 3 METHOD

### **Participants**

Participants for the present study were drawn from a larger study conducted at the University of Florida, Department of Special Education entitled A Study of the Acquisition, Maintenance, and Generalization of a Cognitive-Behavioral Intervention to Prevent or Remediate Disruptive and Aggressive Behaviors in Inclusive School Settings. Of eleven classrooms participating in this larger study in Bradford County, Florida, two classrooms were chosen for the present study. The two selected classrooms each included both third and fourth grade students.

Teachers from the selected classrooms sent consent forms (see Appendix A) home to the parents of all students in their classes. A total of 37 consent forms were distributed. Consent forms were returned from 11 third grade and 15 fourth grade students, for a total of 26 participants.

Prior to the return of parental consent forms, teachers were asked to complete a Student Nomination Form (see Appendix B) to identify students in their classes who might stand to benefit most from the Tools for Getting Along curriculum. Teachers were asked to choose up to ten children in their class whom they believed to be the most aggressive or disruptive. Out of the 26 students returning parental consent forms, 15 were targeted students (3rd grade  $n = 5$ ; 4<sup>th</sup> grade  $n = 10$ ) identified by the classroom teachers.

### **Program Description**

The Tools for Getting Along curriculum is a cognitive-behavioral problem-solving curriculum designed to reduce aggressive and disruptive behaviors by helping students manage anger and frustration and learn pro-social skills through the instruction of a six-step problem-solving model. These steps included:

1. Know you are angry or frustrated.
2. Calm down and think.
3. Think about what may be causing the problem.
4. Think of all the possible solutions to the problem
5. Pick a solution to try.
6. Think about how things turned out.

The Tools for Getting Along curriculum consisted of 15 formal lessons. Lesson one consisted of a general introduction of the problem-solving process. Lessons two through four addressed the recognition of problems (Step #1), an important step in the problem-solving process which involves recognizing the symptoms of anger in oneself as well as others, and learning how failing to regulate anger can create problems or make existing problems worse. The next two lessons addressed strategies designed to train students to "calm down and think" through the engagement of students' cognition (Step #2). Problem definition, the generation of solutions, strategy selection, and evaluation of outcome (Steps #3-6) constituted the nine remaining lessons in the program. All lessons began with a review of the six problem-solving steps. Methods to teach and reinforce the use of the model included group discussion about hypothetical problem situations commonly encountered in the school setting, discussion about application of the model to the students' current personal problems, role plays, hassle logs (worksheets), and frequent review of the problem-solving steps. Students were encouraged to talk about their own

positive and negative experiences involving anger and anger control (Smith, Miller, & Daunic, 2002).

### **Teacher Training**

One teacher in the current study had taught the Tools for Getting Along curriculum during the prior school year and had received a one hour group training on the purpose, content, and delivery methods of the curriculum at that time. Because some changes and revisions had been made to the curriculum since that time, this teacher received a brief update and instructions related to those changes.

The second teacher received a one hour individual training to familiarize her with the purpose, content, and delivery methods of the curriculum and to allow her to ask questions and make comments related to curriculum instruction.

Both teachers received teacher instruction manuals with specific outlines for each lesson (including teacher scripts and suggested discussion topics), all student handout materials, and overhead transparencies for each lesson. Teachers also received feedback forms to be completed after the instruction of each lesson to help inform decision making regarding future revisions of the curriculum.

### **Instruments**

The Problem-solving Questionnaire (PSQ; see Appendix C) was developed to assess how well students learned curriculum content (Daunic, 2002). The scale consisted of 14 multiple-choice items taken directly from the Tools for Getting Along curriculum. For some items, only one choice was appropriate (e.g., "How should you get ideas to solve a problem?"). Other items required students to "check all that apply" (e.g., "Check all the ways your body may feel when you are angry."). Two additional items required students to supply information ("What are the three levels of anger from lowest to

highest?" and "List the steps you would take to solve a problem."). The total number of points possible on the PSQ was 29. In addition to revising problematic items, the knowledge scale development included conducting a pilot using pre- and post-test administration with 35 students who were taught the curriculum. The post-test was used to conduct item analyses and determine alpha reliabilities. Cronbach's alpha for the total scale was estimated at .71 (Daunic, 2002).

### **Procedure**

During the spring 2002 semester, both teachers implemented the 15-lesson Tools for Getting Along curriculum. The curriculum was taught in 30-40 minute sessions, two to three times per week over a six to seven week period. The PSQ pre-test was administered by the classroom teachers to all students at least one day prior to the implementation of the curriculum and the PSQ post-test was administered by the classroom teachers not more than one week after the entire curriculum had been completed.

## CHAPTER 4 RESULTS

The purpose of the current study was to examine the effects of grade level and target status (designated by teacher nomination) on the acquisition of knowledge regarding the basic problem-solving components of a cognitive-behavioral curriculum designed to reduce aggressive and disruptive behaviors. Specific research questions included:

1. When the curriculum is implemented in mixed third and fourth grade classrooms, are there significant differences in knowledge acquisition between third and fourth grade students?
2. When the curriculum is implemented universally in general education classrooms, are there significant differences in knowledge acquisition between target and nontarget students?

### Descriptive Statistics

The mean scores and standard deviations were computed for each grade level. The mean scores were as follows: Grade three pre-test = 17.09, grade three post-test = 24.73; grade four pre-test = 16.40, grade four post-test = 21.80. Table 4-1 shows these results.

Table 4-1. Means and standard deviations by grade

	Variable	N	Mean	SD
Grade 3	Pre	11	17.09	4.50
	Post	11	24.73	4.56
Grade 4	Pre	15	16.40	3.33
	Post	15	21.80	5.36

Mean scores also were computed for target and nontarget status. The mean scores were as follows: Target status pre-test = 15.60, target status post test = 21.73; nontarget status pre-test = 18.18, nontarget post-test = 24.82. Table 4-2 shows these results.

Table 4-2. Means and standard deviations by target / nontarget status

	Variable	N	Mean	Std. Dev
Target Status:	pre	15	15.60	3.27
	post	15	21.73	4.82
Nontarget Status:	pre	11	18.18	4.12
	post	11	24.82	5.29

### Analysis of Variance

A general linear model (GLM) was used to analyze the SPQ data. Using ANCOVA, no significant difference was found by grade level ( $F = 1.90$ ,  $df = 1, 23$ ,  $p = .1811$ ) or by target/nontarget status ( $F = .68$ ,  $df = 1, 23$ ,  $p = .4177$ ).

## CHAPTER 5 DISCUSSION

The purpose of this study was to consider the effects of grade level and target status on the acquisition of knowledge of problem-solving strategies in a universal cognitive-behavioral intervention. Consistent with the earlier findings of Smith et al. (2002) in their evaluation of the Tools for Getting Along curriculum, all participants in the present study made gains in knowledge of problem-solving techniques from pre- to post-test measures. These results also are consistent with evaluations of other social skills training programs, such as the PATHS and Second Step programs, in that students were more knowledgeable of the basic terminology of the problem-solving process and the steps involved in generating positive solutions to everyday problem situations after receiving the intervention (Greenberg, et al., 1988; Greenberg & Kusche, 1996; Grossman, et al., 1997; McMahon, 2000; Taub, 2002). Additionally, no significant differences were found between third and fourth grade students who participated in the intervention program; nor were significant differences found between students that teachers identified as exhibiting or being at risk for aggressive and/or disruptive behaviors compared to typical students.

With regard to results by grade level, the findings of this study indicate that knowledge of problem-solving strategies can be acquired by children at least as young as third grade. These findings, along with the results of previous studies using the PATHS and Second Step programs as early as pre-school, lend support to the idea that social skills programs should be implemented as early as possible with the youngest students to ensure that all children learn to identify and use basic problem-solving strategies. This

finding is important for several reasons. First, aggressive behaviors are known to develop early and remain stable over time (Laub & Lauritsen, 1998) and students identified as violent or aggressive in early elementary school are at selected risk for a host of serious behavioral problems including delinquency and school failure (Laub & Lauritsen, 1998; Lochman, et al., 1997; Morrison et al., 1994). Therefore, intervention as early as the pre-school level may be effective in ensuring that students' aggressive responses are remediated before they can become stable. Second, upon entering school systems, very young children may experience a skill deficit in terms of their ability to identify their emotions and apply effective problem-solving strategies (Gresham et al., 2001). Therefore, early implementation in the basics of problem-solving strategies can serve as a foundation for advanced social skills training in the later grades when a lack of problem-solving ability might be better characterized as a production problem (Gresham et al., 2001).

Most importantly, research has consistently shown the link between pro-social behavior and academic achievement (Lambert & Nicholl, 1977; Green et al., 1980; Feshbach & Feshbach, 1987; Wentzel, 1993; DiPerna & Elliott, 1999; Malecki & Elliott, 2002). Indeed, some researchers believe that positive pro-social functioning with peers is not only desirable, but necessary in the development of new ideas and skills (Slavin, 1995) and that pro-social behaviors can actually "enable academic achievement" through the creation of a social context for learning goals (Wentzel, 1993). Therefore, training young children in problem-solving techniques may reduce aggressive and disruptive behavior, thus allowing for improved academic performance for all students.

With regard to results by target status, the findings of this study indicate that when the intervention is universally implemented, students are able to acquire knowledge of problem-solving strategies regardless of whether they are targeted as exhibiting or being at risk for the development of aggressive and/or disruptive behaviors. This finding may indicate that there is little justification for the policies of many schools today to deliver interventions with identified students only on a pull-out basis. Although the pull-out model may be effective, particularly with children who exhibit extreme behavior problems, it can best be characterized as secondary or tertiary intervention, which is not believed to be the most effective form of prevention (Sameroff & Friese, 1990; Simeonsson, 1996). Primary prevention programs aimed at reducing aggressive and disruptive behaviors involve the promotion of healthy development, impact the largest number of children and may reduce the need for diagnostic, curative or corrective/remedial services in the future (Simeonson, 1994). The findings of this study lend support to the idea that social skills training programs can be effective with identified aggressive students when they are delivered in a general education setting and that social skills training programs in schools can serve as an excellent vehicle for primary prevention efforts. Further, IDEA demands that students be educated in the least restrictive environment possible, regardless of the curriculum content, and social skills training as primary prevention can help meet this mandate while enabling children to reach the critically important goal of the development of socially successful relationships (Elliott et al., 1995).

### **Limitations of the Study**

Although this research was part of a larger study, only two classrooms were selected for this study because they included both third and fourth grade students.

Therefore, one limitation to the current study was the relatively small sample size. As the number of participants in any given study increases, the ability of the statistical tests performed to detect a difference increases. In the present study, because the sample size was small, the lack of effects by grade level and target status may not generalize to the population at large.

Second, although the use of a knowledge test assures an accurate measure of content knowledge, a measure of practical application of that knowledge was lacking in this research. Even though students learned the basic content of the curriculum and were able to identify useful problem-solving strategies, they may still lack the ability to apply those strategies in their everyday lives. Unfortunately, the application component in prevention research is frequently missing due to the lack of availability of direct measurement instruments designed for this purpose and/or time constraints for direct behavioral observations.

Finally, demographic information for individual participants was not available, which allowed for no comparison across gender, race, or culture. Because no comparison was made across those factors, effects caused by those factors are still unknown. However, it should be noted that data collection for this project took place in a small rural school district in the southeastern United States, which included a large number of students of relatively low socio-economic status. Therefore, these findings may generalize when implemented with a similar population.

### **Directions for Future Research**

Consistent with previous research, the results of the present study demonstrate that even very young students are able to acquire knowledge of basic problem-solving vocabulary and strategies. Therefore, future research in social skills training programs

should focus not only on students in 4<sup>th</sup> through 12<sup>th</sup> grades, but on interventions with the very youngest students in kindergarten through third grades as well.

Further, although no differences were observed between third and fourth grade students receiving the Tools for Getting Along curriculum, implementation of the curriculum in pre-school through second grade has not yet been attempted. To effectively serve students earlier than grade three, more research may be necessary to adapt and customize the Tools for Getting Along curriculum, as well as other existing programs, to address the needs of students at earlier levels of development. This may involve a more in depth analysis of when social difficulties are the result of a skill deficit rather than a performance problem (Gresham et al., 2001). Social skills training programs should contain instructional materials designed to address each of these concerns at the appropriate stage of development (e.g. skills training for young children, production training for older children and adolescents). It may also involve the development of effective instruments for the measurement of the real-life application of the problem-solving strategies contained in the curriculum.

Since no differences were found by grade level or by target status, it is hoped that this research may encourage schools to implement social skills training programs on a universal basis in the earliest grades. Not only will early, universal implementation assist in the remediation of existing social skills deficits and improved social outcomes for all children (Sameroff & Friese, 1990; Simeonsson, 1996), it also may increase the likelihood that students will engage in pro-social behaviors in the future and help prepare them for more advanced training in social competence in upper elementary and secondary education settings (Gresham et al., 2001).

Finally, research indicates a strong link between early aggressive behavior and later maladaptive outcomes including juvenile delinquency and school dropout (Laub & Lauritsen, 1998; Lochman, et al., 1997; Morrison et al., 1994). Therefore, the increased use of social skills training programs will serve our students well not only while they are in school, but for the remainder of their lives.

APPENDIX A  
PARENT CONSENT FORM

**Parent Notification and Permission Form**

Dear Parent or Guardian,

Under the direction of Dr. Stephen Smith from the College of Education, faculty and graduate students at the University of Florida have developed a 15-lesson curriculum to help students manage anger effectively and use problem solving in social situations. We have also developed some measures to determine how the lessons affect students' knowledge, attitudes, and behaviors. Your child's classroom teacher or guidance counselor will be teaching the lessons as part of this year's curriculum, and we would like permission to use the data from periodic observations of your child, from some brief surveys that your child's teacher will complete or administer to the students during class, and from information obtained from the district such as gender, ethnicity, grade level, and attendance and incident records. Being able to use this information will help us continue to develop the most valuable and useful programs for children.

Only University of Florida faculty and graduate students working on this project will have access to information obtained. For the purposes of our study, your child's identity will remain strictly confidential, to the extent provided by law, through coding; that is, no names or identifying information will be reported. We anticipate that there are no risks involved, and there may be some direct or indirect benefits for your child as a participant by increasing knowledge of problem solving in social situations.

Participation or nonparticipation in this study is voluntary and will not affect your child's grade or standing in the classroom. There will be no compensation. However, we do need your permission for your child to participate in the study for the current school year. If you should decide to grant permission, please be aware that you or your child may withdraw that permission at any time. If you have any questions or concerns, feel free to contact me at the University of Florida at (352) 392-0726, ext. 281 or Dr. Stephen Smith at (352) 392-0701, ext. 247. Questions or concerns about participants' rights may be directed to the UFIRB office, PO Box 112250, University of Florida, Gainesville, FL 32611.

We appreciate your prompt attention to this matter and your cooperation in assisting us.

Sincerely,

Ann P. Daunic, Ph.D.  
Project Director

-----  
**Getting Along Curriculum**

Please tear off and return this section of the letter to your child's classroom teacher as soon as possible.

I have read and understand the above procedures and I DO \_\_\_\_\_ DO NOT \_\_\_\_\_ give permission for my son/daughter \_\_\_\_\_ to participate in this study. I have received a copy of the description. I have also discussed this project with my child and informed my child that individuals from the University of Florida may be working with him/her.

\_\_\_\_\_  
Parent/Guardian

\_\_\_\_\_  
2nd Parent or Witness

\_\_\_\_\_  
Date

APPENDIX B  
STUDENT NOMINATION FORM

Aggression Intervention Study  
University of Florida

[aggressionstudy@coe.ufl.edu](mailto:aggressionstudy@coe.ufl.edu)

**AGGRESSION INTERVENTION STUDY**  
**STUDENT NOMINATION FORM**

Dear Colleague:

We would like to identify some children in your class who may stand to benefit most from the Getting Along curriculum you will be teaching. Please choose the children in your class (no more than 10) whom you believe to be the most aggressive (Agg) or disruptive (Dis). From this group, rank order (to the best of your ability) from most (#1) to least (e.g., #10) aggressive/disruptive. Circle the type of behavior, if possible, but rank the students in terms of overall severity.

<u>RANK</u>	<u>NAME</u>	<u>BEHAVIOR TYPE</u>
		(circle one)
#1	_____	Agg Dis Both
#2	_____	Agg Dis Both
#3	_____	Agg Dis Both
#4	_____	Agg Dis Both
#5	_____	Agg Dis Both
#6	_____	Agg Dis Both
#7	_____	Agg Dis Both
#8	_____	Agg Dis Both
#9	_____	Agg Dis Both
#10	_____	Agg Dis Both

APPENDIX C  
PROBLEM SOLVING QUESTIONNAIRE

Name \_\_\_\_\_

**PROBLEM SOLVING  
WHAT DO I KNOW?**

**Circle the best answer to each question.**

1. People usually get frustrated when they
  - a. can't have something they want.
  - b. are enraged.
  - c. are in control of their actions.
  - d. get help from someone.
  
2. When you are angry, what should you do first to help yourself think?
  - a. Ask the teacher what to do.
  - b. Talk to the person who made you angry.
  - c. Calm down.
  - d. Read about what to do.
  
3. How should you get ideas to solve a problem?
  - a. Talk the problem over with a friend or adult.
  - b. Watch what others do when they are angry.
  - c. Try not to think about the problem.
  - d. Think about whose fault the problem is.

4. When picking the best solution to a problem, you should think about
  - a. how angry you are.
  - b. what other people might think of you.
  - c. what is most likely to happen.
  - d. who is right or wrong.
  
5. After you pick a solution to a problem and try it out, you should
  - a. just forget about solving the problem if the solution didn't work.
  - b. tell all your friends how the solution worked.
  - c. not worry about whether the solution worked.
  - d. praise yourself if the solution works well.
  
6. Students who have problems
  - a. should always seek help from someone else.
  - b. can learn skills to help solve their problems.
  - c. most likely caused the problems themselves.
  - d. should let adults handle the problems.
  
7. When you are angry, the best way to calm down is to
  - a. talk to your friends.
  - b. use self-talk.
  - c. decide how to solve your problems.
  - d. be patient.

8. A goal is
    - a. what other people want you to do.
    - b. usually a barrier.
    - c. caused by anger.
    - d. something you want to happen.
  
  9. When you are enraged, you usually
    - a. lose control.
    - b. are irritated.
    - c. think better.
    - d. solve your problems better.
  
  10. When people are frustrated, they usually want to
    - a. pay attention.
    - b. give up.
    - c. go home.
    - d. solve their problems.
  
  11. A problem always has two parts:
    - a. a right and a wrong answer.
    - b. anger and frustration.
    - c. a beginning and an end.
    - d. a goal and a barrier.
-

**Read each question carefully and follow the directions given.**

12. Check all the things that can happen when you know how to solve your problems:

- You will make all A's.
- You will often get what you want.
- You will often get what you need.
- You will be in control of your actions.
- You will never be angry with your friends.

13. Check all the ways your body may feel when you are angry:

- Your stomach feels sick.
- Your feet hurt.
- Your heart beats fast.
- You feel sleepy.
- Your face feels hot.

14. Check all the things that are true:

- Barriers keep you from getting what you want.
  - Barriers should be ignored.
  - Barriers can cause problems.
  - Barriers are not a problem.
  - Barriers show you how to solve problems.
-

15. What are the three levels of anger, from lowest to highest?

1. \_\_\_\_\_ (lowest)

2. \_\_\_\_\_

3. \_\_\_\_\_ (highest)

15. List the steps you would take to solve a problem.

1.

2.

3.

4.

5.

6.

---

## LIST OF REFERENCES

- Albee, G. W., & Ryan-Finn, K. D. (1993). An overview of primary prevention. Journal of Counseling and Development, *72*, 115-123.
- American Federation of Teachers (1994). Promoting alternative thinking strategies (PATHS). Retrieved December 2002 from <http://www.aft.org/edissues>.
- Arnold, M. E. & Hughes, J. N. (1999). First do no harm: Adverse effects of grouping deviant youth for skills training. Journal of School Psychology, *37*, 1, 99-115.
- Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall.
- Batsche, G.M. (2000). Bullying. In A.S. Canter, & S.W. Carroll (Eds.), Crisis Prevention and Response: A Collection of NASP Resources, 23-33. Bethesda, MD: National Association of School Psychologists.
- Beck, A. T. (1970). Cognitive therapy: Nature and relation to behavior therapy. Behavior Therapy, *1*, 184-200.
- Bjorkland, D. F. (2000). Children's Thinking: Developmental Function and Individual Differences, 3<sup>rd</sup> Edition. Belmont, CA: Wadsworth.
- Braden, J. P., & Hightower, A. D. (1998). Prevention. In R. J. Morris & T. R. Kratochwill (Eds.), The Practice of Child Therapy, 3<sup>rd</sup> Edition, 510-539. Needham Heights, MA: Allyn & Bacon.
- Byrnes, J. (2000). 2000 Report card: Report #1. Retrieved January 3, 2003 from <http://www.aggressionmanagement.com/Schools/Index.htm>.
- Chamberlin, R. W. (1996). Primary prevention: The missing piece in child development legislation. In C. L. Thompson & L. B. Rudolph (Eds.), Counseling Children 4<sup>th</sup> Edition, 33-53. Boston, MA: Brooks/Cole Publishing Company.
- Cicchetti, D., Toth, S. & Bush, M. (1988). Developmental psychopathology and incompetence in childhood: Suggestions for intervention. In B. Lahey & A. Kazden (Eds.), Advances in Clinical Child Psychology. New York: Plenum.
- Committee for Children. (2002). Second step violence prevention curriculum: A social and emotional learning program. Retrieved November 2002 from <http://www.cfchildren.org>.

- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social-information processing mechanisms in children's social adjustment. Psychological Bulletin, 115, 74-101.
- Dadds, M. R. (2001). Fads, politics, and research: Keeping prevention on the mental health agenda. Prevention and Treatment, 4, 216-222.
- Danner, F. W., & Day, M. C. (1977). Eliciting formal operations. Child Development, 48, 1600-1606.
- Daunic, A. P. (2002). Development of the Problem-solving Questionnaire. Unpublished manuscript.
- Daunic, A. P., Smith, S. W., Miller, M. D., Cresap, M., & Shelide, L. (2001, October). Enhancing adaptive behavior through a problem-solving approach to anger management. Presented at the annual conference of the Council for Children with Behavioral Disorders, Atlanta, GA.
- Denham, S., & Burton, R. (1996). A socio-emotional intervention program for at-risk four-year-olds. Journal of School Psychology, 34, 225-245.
- DiPerna, J.C., & Elliott, S.N. (1999). The development and validation of the academic competence evaluation scales. Journal of Psychoeducational Assessment, 17, 207-225.
- Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), Minnesota symposium on Child Psychology, 18, 77-125. Hillsdale, NJ: Erlbaum.
- Dodge, K. A., Pettit, G. S., McClaskey, C. L., & Brown, M. M. (1986). Social competence in children. Monographs of the Society for Research in Child Development, 213, 51, n.2.
- Elliott, S. N., Racine, C. N., & Bruce, R. T. (1995). Best practices in preschool social skills training. Best Practices in School Psychology III. Washington, DC: National Association of School Psychologists.
- Ellis, A. (1962). Reason and Emotion in Psychotherapy. New York, NY: Lyle Stuart.
- Feshbach, N.D. (1989). Empathy training and prosocial behavior: In J. Groebel & R.A. Hinde (Eds.), Aggression and War: Their Biological and Social Bases. Cambridge, England: Cambridge University Press.
- Feshbach, N.D., & Feshbach, S. (1987). Affective processes and academic achievement. Child Development, 58, 1335-1347.
- Goldstein, A. P. (1999). Aggression reduction strategies: Effective and ineffective. School Psychology Quarterly, 14, 1, 40-58.

- Green, K. D., Forehand, R., Beck, S.J., & Vosk, B. (1980). An assessment of the relationships among measures of children's social competence and children's academic achievement. Child Development, 51, 1149-1156.
- Greenberg, M. T., DeKlyen, M. & Speltz, M. L. (1989) The relationship of insecure attachment to externalizing behavior problems in the preschool years. Paper presented at the Society for Research in Child Development, Kansas City.
- Greenberg, M. T., Kusch, C., & Mihalic, S. F. (1988). Blueprints for violence prevention. Book Ten: Promoting Alternative Thinking Strategies (PATHS). Boulder, CO: Center for the Study and Prevention of Violence.
- Greenberg, M. T., & Kusche, C. A. (1996). The PATHS project: Preventive intervention for children. Final Report to the National Institute of Mental Health, Grant No. R01MH42131.
- Gresham, F. M. (1990). Best practices in social skills training. Best Practices in School Psychology II. Washington, DC: National Association of School Psychologists.
- Gresham, F. M., & Elliott, S. N. (1984). Assessment and classification of children's social skills: A review of methods and issues. School Psychology Review, 13, 292-301.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high incidence disabilities. Exceptional Children, 67, 3, 331-344.
- Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P. Y., Asher, K. N., Beland, K., Frey, Karin, & Rivara, F. P. (1997). Effectiveness of a violence prevention curriculum among children in elementary school. Journal of the American Medical Association, 277, 20, 1605-1611.
- Kendall, P. C. (1993). Cognitive-behavioral therapies wit youth: Guiding theory, current status, and emerging developments. Journal of Consulting and Clinical Psychology, 61, 235-247.
- Kendall, P.C., Ronan, K. R., & Epps, J. (1991). Aggression on children/adolescents: Cognitive-behavioral treatment perspectives. In D. J. Pepler & K. H. Rubin (Eds.), The Development and Treatment of Childhood Aggression, 341-360. Hillsdale, NJ: Lawrence Erlbaum.
- Lambert, N.M., & Nicholl, R.C. (1977). Competence model of nonintellectual behavior and its relationship to early reading achievement. Journal of Educational Psychology, 69, 481-490.

- Laub, J. H., & Lauritsen, J. L. (1998). The interdependence of school violence with neighborhood and family conditions. In D.S. Elliott, B. Hamburg, & K.R. Williams (Eds.), Violence in American Schools: A New Perspective, (127-155). New York, NY: Cambridge University Press.
- Lochman, J. E., Dunn, S. E., & Klimes-Dougan, B. (1993). An intervention and consultation model from a social cognitive perspective: A description of the anger coping program. School Psychology Review, *22*, *3*, 458-471.
- Lochman, J.E., Dunn, S.E., & Wagner, E.E. (1997). Anger. In G. Bear, K. Minke, & A. Thomas (Eds.), Children's Needs II: Development, Problems and Alternatives, (149-160). Bethesda, MD: National Association of School Psychologists.
- Luria, A. R. (1961). The Role of Speech in the Regulation of Normal and Abnormal Behaviors. New York, NY: Liveright.
- Malecki, C. K., & Elliott, S. N. (2002). Children's social behaviors as predictors of academic achievement: A longitudinal analysis. School Psychology Quarterly, *17*, *1*, 1-23.
- Manning, B. H. (1988). Application of cognitive behavior modification: First and third graders' self management of classroom behaviors. American Educational Research Journal, *25*, *2*, 193-212.
- Mcmahon, S. D., Washburn, J., Felix, E. D., Yakim, J. & Childrey, G. (2000). Violence prevention: Program effects on urban preschool and kindergarten children. Applied and Preventive Psychology, *9*, 271-281.
- Meichenbaum, D. H. (1977). Cognitive-behavior Modification: An integrative approach. New York, NY: Plenum Press.
- Meichenbaum, D. H., & Goodman, J. (1971). Training impulsive children to talk o themselves: A means o developing self-control. Journal of Abnormal Psychology, *77*, 115-126.
- Merrell, K. W. (2002). Social-emotional intervention in schools: Current status, progress, and promise. School Psychology Review, *31*, *2*, 143-147.
- Morrison, G., M., Furlong, M. J., & Morrison, R. L. (1994). School violence to school safety: Reframing the issue for school psychologists. School Psychology Review, *23*, *2*, 236-256.
- Novaco, R. W. (1975). Anger control: The Development and Evaluation of an Experimental Treatment. Lexington, MA: D.C. Health
- Possell, L. E., & Abrams, K. (1993). Incorporating a brief social skills unit into the regular classroom setting. School Psychology International, *14*, 149-158.

- Reiss, A. J., & Roth, J. A. (Eds.). (1993). Understanding and preventing violence. Washington, D.C: National Academy Press.
- Samaroff, A. J., & Friese, B. H. (1990). Transactional regulation and early intervention. In S. J. Meisels & J. P. Shankoff (Eds.), Handbook of Early Childhood Intervention, 119-149. New York, NY: Cambridge University Press.
- Shapiro, J. P. (2000). The peacemakers program: Effective violence prevention for early adolescent youth. In Canter, & S.W. Carroll (Eds.), Crisis Prevention and Response: A Collection of NASP Resources, 45-48. Bethesda, MD: National Association of School Psychologists.
- Shure, M. B. & Spivack, G. (1982). Interpersonal problem-solving in young children: A cognitive approach to intervention. American Journal of Community Psychology, 10, 341-356.
- Simeonsson, R. J. (1996). Promoting children's health, education, and well-being. In C. L. Thompson & L. B. Rudolph (Eds.), Counseling Children 4<sup>th</sup> Edition. 3-31. Boston, MA: Brooks/Cole Publishing Company.
- Simeonsson, R. J. (1994). Risk, Resilience & Prevention: Promoting the Well-being of All Children. Baltimore, MD: P. H. Brookes.
- Skinner, B. F. (1953). Science and Human Behavior. Toronto, Ontario: Macmillan.
- Slater, A. M., & Kingston, D. J. (1981). Competence and performance variables in the assessment of formal operational skills. British Journal of Educational Psychology, 51, 163-169.
- Slavin, R. E. (1995). Cooperative Learning (2<sup>nd</sup> Ed.). Needham Heights, MA: Allyn and Bacon.
- Smith, S. W., Miller, M. D., & Daunic, A. P. (2002). Tools for getting along: Teaching students to problem solve. University of Florida, Department of Special Education. Technical Report #9.
- Smith, S. W., Miller, M. D., & Daunic, A. P. (2002). Aggression intervention study: Executive summary. University of Florida, Department of Special Education. Unpublished manuscript.
- Taub, J. (2002). Evaluation of the second step violence prevention program at a rural elementary school. School Psychology Review, 31, 2, 186-200.
- U.S. Department of Education (1999). Annual report on school safety, 1999. Washington, DC: Author. Available: <http://www.ed.gov>
- Vygotsky, L. S. (1978). Mind in society. Cambridge, MA: Harvard University Press.

- Vygotsky, L. (1962). *Thought and Language*. New York, NY: Wiley
- Watson, J. B. (1924). Behaviorism. New York, NY: W. W. Norton.
- Weissberg, R. P. (1985). Designing effective social problem-solving programs for the classroom. In B. H. Schneider, K. H. Rubin & J. E. Ledingham (Eds.), Children's Peer Relations: Issues in Assessment and Intervention, 225-241. New York: Springer-Verlag.
- Wentzel, K. R. (1993). Does being good make the grade? Social behavior and academic competence in middle school. Journal of Educational Psychology, 85, 357-364.

## BIOGRAPHICAL SKETCH

I was born in Corpus Christi, Texas and shortly thereafter moved to Michigan where I was raised. I attended both elementary and high school at Hanover-Horton Public Schools in Horton, Michigan. Following High School I worked for four years and spent the next 18 years doing volunteer work and raising my family. I returned to school in 1995 and earned my Bachelor of Science degree in psychology at Eastern Michigan University in Ypsilanti, Michigan in 2000. In the summer of 2000, I moved to Gainesville, Florida to pursue my Master of Arts in Education (M.A.E.) and Specialist in Education (Ed.S.) degrees. After graduation I intend to serve as a school psychologist in a public school district in Florida.